

12th ESEH Conference

Mountains and Plains

University of Bern
22–26 August 2023



Monday, 21 August 2023

14:00-17:00

UniS – Information Desk

Check-in: Registration

Tuesday, 22 August 2023

from 22.08.2023 to 25.08.2023, 9:00-18:00

UniS – Information Desk

Check-in: Registration

9:45-10:30

Mensa/Entrance Area UniS & Unitobler

Coffee Break

0100 on Tuesday, 22.08.2023, 10:30-11:15

UniS – S 003 | digital broadcast: Unitobler – F 021, F 022

Conference Opening

Organiser:

Christian Rohr, ESEH Conference 2023, University of Bern, Switzerland

Speakers:

Christian Rohr, ESEH Conference 2023, University of Bern, Switzerland

Marco Armiero, ESEH president, Universitat Autònoma de Barcelona, Spain

Heike Mayer, Vice-Rector, University of Bern, Switzerland

Thomas Stocker, Oeschger Centre for Climate Change Research, University of Bern

0101 on Tuesday, 22.08.2023, 11:15-12:45

UniS – S 003 | digital broadcast: Unitobler – F 021, F 022

Keynote Lecture: Sacred Mountains. Environmental History and Religion

Keynote Speaker:

Jon Mathieu, University of Lucerne, Switzerland

Introduction:

Christian Rohr, ESEH Conference 2023, University of Bern, Switzerland

About Jon Mathieu:

Jon Mathieu is Editor-in-chief of the journal «Histories», and Professor Emeritus of History at the University of Lucerne. He was the founding director of the Institute of Alpine History at the University of Ticino and

has published widely about the history of mountain regions, e.g. *The Third Dimension. A Comparative History of Mountains in the Modern Era* (2011); *The Alps. An Environmental History* (2019); *Mount Sacred. A Brief Global History of Holy Mountains Since 1500* (2023).

Abstract:

Mount Kailash in Asia, the Black Hills in North America, Uluru in Australia: around the globe, numerous mountains have been and continue to be attributed sacredness. This lecture looks at the cultural diversity of sacred mountains and situates their exploration both in recent research and in ecological policy and practice. How should we deal with religion as environmental historians?

12:45-14:15

Mensa/Entrance Area UniS & Unitobler

Lunch

City Trip on Tuesday, 22.08.2023, 14:00-16:00

City Trip A

The Swiss Parliament

Guide:

Christine Egerszegi-Obrist, former MP, Switzerland

Get an insight into the Swiss Parliament. You will visit the focal points of the building such as the domed hall, both debating chambers (Council of States and National Council) and the lobby ('Wandelhalle'). In addition, you will be given some information on the history of the Federal Palace and on the functioning of the Swiss parliamentary system.

0200-117 on Tuesday, 22.08.2023, 14:15-15:45

UniS – S 003

Neither Rural nor Urban: Pondering Land Usage in «Peri-Rural» Tropical Communities (H)

Organiser:

Greg Bankoff, Ateneo de Manila University, Philippines

Chair:

Patrick Roberts, Max Planck Institute of Geoanthropology, Jena, Germany (V)

Abstract:

Land is usually either classified as rural or urban. There is nothing in between. Though definitions of what constitutes an urban area vary enormously from country to country, largely dependent on population, rural areas receive no such refinements: rural areas are simply those areas that are not urban. Yet the designation of rural hides a multitude of land usages that vary according to population density, topography, soil quality, altitude, irrigation, and culture, among other factors. This is particularly the case

as regards villages and larger rural settlements. These «peri-rural» areas, centres of population and the surrounding areas significantly affected by human activities, extensively impact land usage across considerable distances. Moreover, these impacts have intensified over time. Adopting a land usage focus and assessing its impact on the environment expands our understanding of the extent to which human activities affected land cover and ultimately climate when, for most of recorded history, the majority of people lived in these same rural areas. Using case studies drawn from changing land usage in the colonial Philippines between 1565 and 1898, the papers in this panel examine the nature and utility of such a third classification and how it can shed new light on how we think about the tropical environment.

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Paper 1:

Greg Bankoff, Ateneo de Manila University, Philippines

«Peri-Rural» Life in Late Nineteenth Century Lowland Luzon, Philippines

Our understanding of land usage in the late colonial Spanish Philippines is based on a crude urban-rural dichotomy that simply defines the former as Manila (debatably including Iloilo City & Cebu City) and the latter as everything else. The growth of the cabecera (provincial capital) and economically important pueblos («towns») during the second half of the nineteenth century, and their incorporation into a modern transport and communication network, significantly increased their impact on the surrounding areas. This paper explores the nature of those changes and their effect on the environment around larger settlements in rural areas that were not yet fully urban but more than simply rural.

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Paper 2:

Max Findley, Max Planck Institute of Geoanthropology, Jena, Germany

Patrick Roberts, Max Planck Institute of Geoanthropology, Jena, Germany (V)

Reducción in the Spanish Philippines 1565-1700: Modelling the shift from Semi-Mobile to Permanently Settled

The notion of peri-rural settlements is especially applicable in the 16th and 17th century Philippines. Early Spanish colonial policy in the archipelago centred on reducción, the coerced resettlement of peoples into permanent, condensed villages dominated by a church. Prior to reducción, Philippine settlement patterns ranged from linearly dispersed urban zones to temporary villages erected by seasonally migratory kinship groups. Through land use models, this paper charts the environmental impact of reducción and changing settlement patterns in the portions of the Philippines under Spanish suzerainty. It does so by modelling land use in said regions in 1564, one year prior to the establishment of a permanent Spanish colony in Cebu, and in 1640, at the conclusion of the silver cycle that made Manila a global entrepot. Throughout, it draws upon the peri-rural concept to describe settlements within and along the cusp of Spanish colonial authority, as well as pre-colonial Philippine settlements that did not conform to Western preconceptions of urban development.

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Paper 3:

Grace Barretto-Tesoro, Archaeological Studies Program, University of the Philippines Diliman, Philippines

Exploring land use in Southern Luzon, Philippines from the late 16th century to the late 19th century

This paper explores the changing land use in Southern Luzon, Philippines from the late 16th century to the late 19th century. It selects key archaeological sites in Batangas and traces how these areas changed after the arrival of the Spanish. Due to the proximity to Manila, Batangas was one of the early provinces established together with the founding of many towns. Many of the early Spanish towns were created in existing and large settlements and many lands were transformed to conform to the Spanish concept of

order and use. Examining land use in different parts of Batangas shall contribute to classifying varying degrees of urbanization focusing on what constitutes a «peri-rural» area.

0201-255 on Tuesday, 22.08.2023, 14:15-15:45

UniS – A-022

Life beneath the waves – imagined, encountered, and exploited (1/2)

Organiser:

Matti Olavi Hannikainen, University of Helsinki, Finland

Cordula Scherer, Trinity College Dublin, Ireland

Chairs:

Cordula Scherer, Trinity College Dublin, Ireland

Abstract:

This session explores life beneath the waves from the darkness of deep-sea plains to the mountain streams. We encourage environmental historians and scholars from other disciplines to explore different forms of aquatic life that flourishes between the terrestrial mountains and the ocean floor. We welcome papers that address different perspectives on life beneath the waves ranging from sea-monsters that were imagined or new species that were encountered and species that have been known and exploited for centuries. We envisage the plurality of «seafood» as one conceptual starting point of this session because less-profitable species of fish in particular remain overlooked despite the fact that they comprise over 90% of all fish species between the mountains and the sea floor.

Moreover, the session aims to take a broader approach on life beneath the waves experimentally explored as the Good, the Bad and the Ugly. This includes the often-invisible foundation of aquatic life – primary producers - such as phytoplankton, sea grass, seaweeds and kelp forests that have played a vital role in supporting and destroying (Harmful Algal Blooms) aquatic life. Human exploitation of these underwater resources has been based on human defined characteristic according to which much has been considered bad due to odour, structure and/or taste. Similarly, some species have been characterized as ugly despite being beautiful beyond the human gaze. Hence, we welcome papers that explore different forms of aquatic life that have fuelled human imagination for millennia.

We propose a main session that will consist of two separate panels. We emphasise the local and the regional case studies that constitute empirical evidence for a more far-reaching global synthesis on sea life. In addition to the traditional narratives, this session welcomes papers discussing new perspectives, methodologies, approaches, and source materials providing us with new insights into life beneath the waves.

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Paper 1:

Tuomas Räsänen, University of Eastern Finland, Finland

Forgotten Predators of Marine Mountains: Overkill and Insecure Recovery of the Baltic Seals

In the early twentieth century, up to 300,000 seals lived in the Baltic Sea. The marine mountain tops, the islands and islets that rose from the deeps, were swarming with seals. By the 1970s, the number of seals had dropped to less than five thousand individuals. During the twentieth century, approximately 600,000 seals were killed. In relation to the geographical area, the overkill of seals was comparable with the much better-known examples of animal slaughtering, such as that of American Bison in the nineteenth century.

This paper will examine the decline of Baltic seal populations from the perspective of terracentrism. The fate of marine seals epitomises, how humans as terrestrial animals have long ignored marine environments. In the context of Nordic countries, even after terrestrial predators gained status of charismatic animals, seals were either despised or overlooked and the killing of marine seals continued unabated. After the 1980s, when seals were finally protected by law, fishers often shot them illegally; as public in postmodern urban societies have tended to grieve on the loss of individual predators on land, much less attention has been paid onto the hundreds of seal cubs drowned each year in fishing gear. This paper argues that these asymmetries on attitudes towards terrestrial and marine animals stems from the terracentric ideas according to which humans have perceived the sea as great emptiness devoid of ecological or ethical values.

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Paper 2:

Matti O. Hannikainen, University of Helsinki, Finland

Imagining Improvement – Policies and Practices over Fish Farming in Finland, 1870–1970

This paper analyses, what species have been considered suitable for farming in Finnish waters between the 1870s and the 1970s. Whilst Finnish society continues to consume fish, these are either imported or farmed. The idea of improving fisheries by farming species was discussed first in the 1860s. Previously, Finns had preferred to transplant fish species to increase the catch of fisheries into lakes and ponds with non-existent stocks. A new practice that promoted farming the most valued species was introduced and implemented after the 1860s. Farming concentrated on the dwindling stocks of anadromous species in their spawning rivers in addition to which another new policy aimed at improving the stocks of less valuable species regionally by improving their spawning in various ways.

The paper will scrutinize the changes in farming policies and the environmental imaginary guiding them. The farming policies can be separated into natural practices and industrial reproduction with the latter becoming dominant with the successful introduction of new species, such rainbow trout (*Oncorhynchus mykiss*) in the 1960s. The apparent technological triumph shadowed a double tragedy, however. Some ponds had their original fisheries poisoned to clear them for new species, whereas farmed fish species replaced traditional species as an affordable commodity. The paper thus ponders upon the perceived values between native and non-native species addressing a rarely discussed theme in (Finnish) environmental history.

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Paper 3:

Diego Inglez de Souza, ISCTE-IUL, Lisbon, Portugal

From Brazilian plains to Norwegian seas: the history of Salmon and the seafood landscapes

This story starts with fishing. After studying the history of sardine fishing and the expansion of the canning industry in Portugal in the late 19th Century and the first half of the 20th Century, a new set of issues regarding aquaculture emerged to the surface. Salmon (*Salmo salar*), for instance, nowadays a staple seafood, is fed with a compound of vegetal and animal protein, extracted from sea and land, increasing the pressure on ecosystems and leaving imprints on the coastal environment.

This paper aims to explore the recent history of aquaculture through this particular species, describing and representing the built environment associated to this industry. In the last decade, aquaculture increased rapidly to represent nowadays more than half of the «seafood» consumption in the world, by various modalities and involving different landscapes and species. Salmon «farmed» on Norwegian coast is fed with pellets made from the combination of processed transgenic soy coming from remote fields in Brazil and an array of pelagic fish captured in distant seas. For each kilo of salmon produced, some 4 to 8 kilos of pellets must be produced, increasing the pressure on socio-ecologies, leaving imprints on coastal and agricultural environments. The circulation of biomass involved in the production of a «techno-scientific organism», from

the natural resource to processing and consumption circuits, reveals the connections between protein and predators along the trophic chain.

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Paper 4:

Anna Safronova, Université Panthéon-Sorbonne Paris 1, France

The Fat, The Small and The Weird: A History of the Exploitation of Fishery Resources in the Volga-Caspian Basin

This paper analyses the construction of ichthyological knowledge through a combination of political, technical and cultural factors, defining fish as an object of commercial exploitation and how fisheries would be preserved based on the example of the Soviet part of the Volga-Caspian basin. One of the topoi of Soviet official discourse is the statement about the Sonderweg of the socialist science, able – unlike in capitalist predatory countries – to plan the exploitation in a way that would not deplete the fish populations. It was assumed that the fish farms would compensate for the losses caused by reduction of spawning grounds, caused by dam construction, while the exploitation of new species would compensate for the loss to industry.

Drawing on the example of management of three endemic species of the Caspian Basin – sprat (*Clupeonella cultiventris caspia*), belorybitsa (*Stenodus leucichthys*) and lamprey (*Caspiomyzon wagneri*) – this paper challenges the auto-proclaimed exceptionalism of socialist science and resource management and addresses the interrelated fates of the commercial species exploited near the Volga delta. Using the Soviet case of the Volga-Caspian resource management, the paper illustrates a global tendency in the exploitation of ocean resources, where the depletion in fish population is counterbalanced by an increase in the distance at which fish are caught and the growing importance of catches of smaller species.

0203-329 on Tuesday, 22.08.2023, 14:15-15:45

UniS – A-126

Environmental dimensions of Northern Eurasia: spaces, resources, and people

Organiser:

Vasily Borovoy, University College Dublin, Ireland

Chair:

Jawad Daheur, CNRS Centre National de la Recherche Scientifique, France

Abstract:

In this session we touch upon the history of the interaction between society and the environment over a vast territory, which is more conveniently referred to as the Northern Eurasia. This notion helps us to encompass the boundaries of the Russian Empire with its predecessors and successors and the contact zone with other empires and nation-states around it over several centuries. The environment of these vast spaces as well as the attitudes of the various societies to it is very diverse; there are mountains and plains, great rivers and lakes, steppes and seas. Nevertheless, we would like to highlight some features of the description, governance, and sustaining a living on this land that would point to something in common in the so different examples we report on. The main theme of our panel is societies' relationship to the environment through the use of natural resources and the accompanying description and understanding of space. The agent of action here is the heterogeneous society and the modern state, which cannot always be separated, as well as the external actors who have been included in the use of natural resources through trans-regional and trans-imperial networks of economic exchange and knowledge circulation

Paper 1:

Erika Monahan, University of Cologne, Germany

Mapping the Forest-Steppe: Along the Irtysh and Ishim with Witsen and Remezov

Rivers have functioned as conduits to trade across Eurasia for millennia. Ancient itineraries travelled along the Irtysh and Ishim rivers, which straddle the forest and steppe. This paper analyses how Russian Semen Remezov (1642-post 1720) in two of his atlases of Siberia (*Khorograficheskai kniga* and *Chertezhnaia kniga*) and Dutchman Nicolaas Witsen (1641–1717) in his *Map of Great Tartary* (1687) mapped the Ishim and Irtysh rivers. It aims to illuminate the understanding of environment (mountains, swamps, flora) and history of the area as reflected in the maps. It further seeks to understand the differences between Remezov's and Witsen's renderings of the region. This paper is part of a larger on-going project on Witsen's and Remezov's cartographical oeuvre.

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Paper 2:

Jennifer Keating, University College Dublin, Ireland

Mountain markets: Tracing ecological networks at the Karkara trade fair

Taking as its foundation two short accounts of the Karkara fair, one by the imperial official Count Konstantin Pahlen, one by the Kazakh writer Mukhtar Auezov, this paper explores the many over-lapping lives of an annual trade fair held in eastern Turkestan, at the Russian empire's southern margins. Located in the high pastures of eastern Semirech'e, the fair was held each summer from the 1890s until 1916 to considerable success, turning over a million roubles on occasion. The paper explores the fair as a critical yet ephemeral episode when networks of exchange, mobility, labour and environmental dependence were made visible via the trade of animals, fabrics, sewing machines, tea, furs and so forth. These were items that sustained communities on multiple scales, from local pastoralists to merchants from Kashgar, Tibet, Russia, Germany and the United States. In exploring the interconnected spatial, economic and ecological networks that met at the Karkara fair, and attempting to trace the interlinked lives of the animals, plants and humans involved, the paper considers what looking at this rural high altitude spot can tell us about mobility, economy and ecology more generally in the late imperial era.

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Paper 3:

Vasily Borovoy, University College Dublin, Ireland

Governing a region through natural resources: European North of Russia and its forests

In one form or another, there are forests almost everywhere on Earth where humans live. A society's relationship to its forests can indicate of how that society is organised. Using the forests of the European North of Russia in the late 19th and early 20th centuries as an example, I consider how central and provincial authorities, scientists, entrepreneurs and the public in general envisioned the future of this region. The particular features of the northern forests uses include the apparent abundance of natural resources in combination with a shortage of labour, the predominance of timber exports over supply to the domestic regional and imperial markets, and the relative 'backwardness' and 'underdevelopment' of infrastructure and general knowledge of forests. These features emphasise the role of global economic networks and the inclusion of northern actors in them, on which the success of exports depended. As well it highlighted the official authorities' increased focus on attracting workers, developing the transport network, and organising the timber industry. Behind these efforts was the desire of the public and the imperial officials to make the timber industry modern and more profitable and at the same time to make this vast and inaccessible region more governable. The change in attitudes towards the forests during these years illustrates the deeper processes of change in the late Russian Empire, which continued in Soviet Russia as well.

Hunting High and Low. European Venatic Culture(s) and Societies in Transition (16th–20th Century)

Organiser:

Timm Schönfelder, GWZO Leipzig, Germany

Chairs:

Melanie Arndt, University of Freiburg, Germany

Anastasia Fedotova, Institute for the History of Science and Technology, RAS, Russian Federation

Abstract:

Hunting is among humanity's oldest cultural practices. It is a prism for progress in science and technology, for attempts to control nature, gender issues, and social change. Based on rigid rules and strong traditional values, it represents status, power and social belonging. While hunters are considered mediators between the animal kingdom and the human world, the dualism of nature and culture reveals itself as a central sign of modernity in the attempted rationalization and mechanisation of venatic practices during the past centuries.

In absolutist France, hunting became an integral part of monarchical culture and a central tool of territorial power that strongly connected the somewhat contradictory aspects of symbolic representation and rational resource management. Across Europe, venatic infrastructures such as hunting parks materialized an architectural domestication of nature. As the revolutions of 1789 and 1848/49 curtailed hunting privileges of (Western) European nobility, the following decades arguably saw simpler and more sustainable practices. Even in the well-endowed courts of Franz Joseph I of Austria, Wilhelm II of Germany, and Nicholas II of Russia hunting was increasingly regulated according to new scientific discoveries.

Local venatic traditions often clashed with superimposed laws and norms, as did the interests of forestry, agriculture and wildlife management. Hunting has remained a highly controversial social practice to this day. To better understand these complex issues from the still neglected perspective of environmental history, the panel offers a longue durée perspective on the intertwined developments from 16th century absolutist France to the crumbling empires of 20th century Europe.

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Paper 1:

Maike Schmidt, University of Leipzig, Germany

Venatic regimes. Governing society and territory through forest regulations in early modern France

In 16th and 17th century Europe, hunting became an integral part of the monarchical political culture. As a royal prerogative, it shaped absolutist concepts of nature and the environment. In France, special emphasis was put on stag hunts (today's chasse à courre), a technique that loomed large in the thinking of French monarchs trying to gain administrative control over territories, woods and animals. First described as a noble art in medieval hunting manuals, venery involved deep knowledge, trained hounds, skilled staff and vast areas to pursue deer over distances of no less than 40 kilometres. This led to the creation of new spatial formats, royal enclosures and artificial ecosystems with dense game populations.

Royal regulation measures largely stimulated the king's claim to power through a repressive penalty code that restricted access to sylvan hunting grounds. Those measures stressed the perceived natural order of a feudal society that distinguished between noble and non-noble species relating to higher and lower hunting techniques. However, the rising notion of the common good (bien publique) and the increasing

centralization of the national economy required a balanced resource management which would become a considerable challenge in the 17th century. The paper therefore examines how the discourse in the royal forest ordinances developed during the 16th and 17th centuries. It puts a special focus on the close interrelation between rational forest administration and the need to preserve hunting practices as a crucial symbolic feature of French kingship that remained a major political concern throughout the Ancien Régime.

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Paper 2:

Martin Knoll, University of Salzburg, Austria

Negotiating venatic societies. Debates on Hunting in parliamentary sources of Austria and Germany (19th/20th Centuries)

With the end of the Ancien Régime and the making of bourgeois societies, the character of hunting as a social practice and a highly regulated form of natural resource use had to be re-negotiated. New political, social and cultural framework conditions demanded new models and rules for hunting, while the elitist character of hunting was retained in many regions of 19th and 20th century Europe. Hunting has kept its controversial character due to a broad range of issues in need of regulation: security and (il)legal access to gun ownership, ethical questions of human-animal relations, competing land use options, to name but a few.

Parliaments as primary fora of political debate and decision making in parliamentary systems played a crucial role for the negotiation of the social status and legal regulation of hunting. Within the federalist systems of 19th/20th century Austria and Germany this also applied for the provincial parliaments (Landtage). The aim of this paper is to investigate the parliamentary debates focusing the social ecology of hunting and leading to the revision of legal norms. The case study will concentrate on the regional parliaments of Bavaria (Germany) and Salzburg (Austria) to trace major threads of discussion, allocate different positions towards hunting in different political parties and interest groups, identify key actors of lobbying and decision making, and hereby assess the potential of parliamentary documents as sources for the social ecology of hunting.

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Paper 3:

Timm Schönfelder, GWZO Leipzig, Germany

Venatic Trajectories. Hunting Practices in Central and Eastern Europe towards the Fin de Siècle

Eastern Europe is often considered backward, as if being caught in a catch-up development. In the case of hunting, this perspective is only partly true. Just as in the west, hunting practices increasingly carried an urban understanding which focused less on subsistence than on sport, leisure and trophy hunting as past-time activities. Hunting societies were a major driving force in this. They preferred more modest activities like stalking (Pirschjagd) to the extravagant par force on horseback or the canned hunt which did not correspond to the supposedly bourgeois ethical code of 'Waidgerechtigkeit' (fair chase, ru. pravil'naia okhota). Even Kaiser Franz Joseph I and Tsar Nikolai II practiced down-to-earth hunting forms as a diversion and an escape from reality.

While a distinction between the 'high' and the 'low hunt' (Hohe und Niedere Jagd), that reserved certain species of game for members of the nobility, was uncommon towards the east, a strong 'Westernization' of hunting practices could nonetheless be observed. The discussions surrounding Russia's first comprehensive hunting law of 1892 are testimony to this; it restricted the use of natural resources and liberalized formerly exclusive rights of private land ownership. As the vivid discourse on sustainability, predator control and hunting ethics transpired between east and west, the first International Hunting Exhibition in Vienna in 1910 marks the pinnacle of this exchange before the onslaught of the Great War. Here, the plethora of

European hunting cultures in transition could be observed. The trajectory of these discourses will be the focus of this paper.

0205-362 on Tuesday, 22.08.2023, 14:15-15:45

Unitobler – F 013

Economic strategies and their environmental impact in the Northern Dinaric Alps in the 19th and 20th centuries

Organiser:

Martin Meiske, Research Institute for the History of Science & Technology, Deutsches Museum Munich, Germany

Chair:

Žiga Zwitter, University of Ljubljana, Slovenia

Abstract:

The Dinaric Alps are a rugged and extensive mountain ridge between the Adriatic Sea and the Pannonian Basin and thus represent a natural barrier. Due to their pedology (karst soil), they are sparsely populated. However, in the 19th century the perception of unused natural resources prevailed (land, territory, minerals, etc.) and was thus included in modernist planning.

The panel will focus on modern economic initiatives in the 19th and 20th centuries and their impact on the natural environment in the Northern Dinaric Alps region (Slovenia, Croatia, Bosnia and Herzegovina), based on interdisciplinary approaches. The most notable project associated with the region is reforestation, which is why two presentations focus on this topic. The first deals with the reforestation of the Lika karst region, the second with the reforestation with non-native black pine in the karst areas of Slovenia. The third paper deals with the application of toxic wood impregnation techniques in a semi-colonial region (Bosnia and Herzegovina) ruled by the Habsburg Empire, integrating the semi-autonomous region through the construction of railroads. The last paper focuses on the impact of industrialization and urbanization on the environment, which is highly vulnerable to environmental degradation, by reflecting on Poisons an ecological movie from the 1960s and its perceptions in Slovenia in the context of the rise of an international environmental movement.

This session, with researchers of different genders from three countries and five different institutions, aims to address the presented topics in their full span: from planning, application of strategies, narratives and discourses, to their impact decades later in a long-term perspective.

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Paper 1:

Ivan Brlić, Institute of Social Sciences Ivo Pilar – Regional Centre Gospić, Croatia
Adrian Knežević, Institute of Social Sciences Ivo Pilar – Regional Centre Gospić, Croatia

Reforestation of the karst Region of Lika from 1886 until 1941

The area of mountainous Croatia, especially its central and southern parts, which includes the Croatian region of Lika, is extremely karst diverse. In this sense, the management of the forest was of key importance for the development of the community, which brought material benefit and a certain level of well-being to the population as well as to the political-administrative systems that dominated this area during the last two centuries.

Even today, in the processes of the green transition, Lika forests represent a key element in the preservation of biodiversity as well as the economic survival of people in this area. When discussing the

preservation of forests, the period from the end of the 19th century and the first half of the 20th century is when this activity was the most dominant and productive at the same time. In addition to the state institutions and municipal branch offices for the preservation of the forest area in Lika, certain individuals, as well as institutions that operate on the ground, played an important role. One of these was the Karst Forestry Inspectorate. The main purpose of this presentation is to provide historical and chronological review of development of forestation in the area of Lika during the time of Austria-Hungary and so-called first Yugoslavia. In elucidating the complex socioeconomic and eco-historical relationships in Lika at that time, new acknowledgements from various funds kept in the archives in Vienna, Zagreb, and Belgrade will certainly be useful. In the same way, for a better understanding of the development of forestation, numerous reports and newspapers that precisely followed the management of forest resources at the turn of the 20th century will be useful as well. The presentation will try to confirm basic assumptions that forest management played an important role in the economic development of Lika as well as the preservation of the natural environment.

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Paper 2:

Meta Remec, Institute of Contemporary History, Ljubljana, Slovenia

Afforestation with non-native black pine (*Pinus nigra*) in the karstic areas of Slovenia in the 20th century: environmental implications

The paper will focus on the afforestation project and the creation of monocultural forest stands of non-native black pine (*Pinus nigra*) in the Kras Plateau and the Vipava Valley in Slovenia from the mid-19th century onwards and their social and ecological effects.

Based on the archival sources from various state, regional and local institutions at different levels and over the time span of three different state entities with their different social orders, which shaped the studied area in the 20th century, the paper will analyse the causes of afforestation and the consequences of this human intervention in the environment, which completely changed the social and ecological characteristics of the landscape. Various environmental impacts caused by afforestation will be presented, such as changes in soil composition, vegetation, and microclimate, with the main focus on the spread of the non-native processionary moth (*Thaumetopoea pityocampa*), which, due to the specific characteristics of the Slovenian karst region and its local climatic conditions, spread rapidly even in forested areas up to 1200 m above sea level. The paper will analyse the methods of control of this pest, which was initially carried out mechanically by cutting branches and destroying cocoons, while after World War II the pest was also aggressively controlled by chemical means, resulting in contamination of groundwater in karst areas and the local environment as a whole.

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Paper 3:

Martin Meiske, Research Institute for the History of Science & Technology, Deutsches Museum Munich, Germany

Empire, Extraction, and Externalization. Wood Impregnation in Early 20th Century Bosnia and Herzegovina and its Precarious Legacy

At the turn of the century, the development of high-pressure impregnation techniques and the use of coal tar oil creosote substantially prolonged the life circles of railway ties and other wooden infrastructure materials. The rising wood impregnation industry played a vital role in Austro-Hungarian imperial endeavours, such as in Bosnia and Herzegovina. The construction and maintenance of infrastructure helped to establish and maintain a quasi-colonial rule and exploit the country's natural resources. These practices had long-term impacts on the environment and society. Considering that large parts of the region consist of karst ecologies that are especially vulnerable to pollution, close environmental monitoring and sustainable management are needed.

This paper examines questions of (post-)colonialism, occupational health, environmental justice, and the long-term environmental impact of toxic impregnation substances, following the activities of the Austrian impregnation company Guido Rütgers KG. It reflects on how environmental history can contribute to reconstructing changing human-nature relations in the Dinaric Karst, trace back sources of pollution, and trigger debates for a sustainable management of the region's ecologies.

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Paper 4:

Željko Oset, Museum of Slovenian Independence SI, Slovenia

Poisons, an ecological movie (1964). An example of usage of shocking imagery to address environmental deterioration (in Slovenia)

At the turn of the century, the development of high-pressure impregnation techniques and the use of coal tar oil creosote substantially prolonged the life circles of railway ties and other wooden infrastructure materials. The rising wood impregnation industry played a vital role in Austro-Hungarian imperial endeavors, such as in Bosnia and Herzegovina. The construction and maintenance of infrastructure helped to establish and maintain a quasi-colonial rule and exploit the country's natural resources. These practices had long-term impacts on the environment and society. Considering that large parts of the region consist of karst ecologies that are especially vulnerable to pollution, close environmental monitoring and sustainable management are needed.

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0206-353 on Tuesday, 22.08.2023, 14:15-15:45

Unitobler – F 021

Shieling Practices in the Arctics: Perspectives from Iceland

Organiser:

Árni Daniel Júlíusson, Stefansson Arctic Institute, Akureyri, Iceland

Chair:

Ragnhildur Hemmert Sigurdardottir, Independent Scholar, Iceland

Abstract:

This session seeks to interrogate and discuss Transhumance in Iceland, an overlooked part of the agricultural system. Papers in this session will combine historical, archaeological, and palaeoecological reasoning and evidence to explore how available resources at shieling sites, their dynamic history and their place in the landscape reflect socio-economic structures in mountain communities in pre-industrial Iceland.

The use of uplands and the hinterland in Iceland remains a fragmented and poorly understood topic. We aim to advance our understanding of this interesting phenomenon by examining how it appears through the use of shieling sites. The general perception is that shielings seem to slowly appear during the initial settlement in Iceland, reaching perhaps a peak in the Middle Ages before coming to an end in the early 1900s. Our knowledge of the activities that took place in these sites is still greatly inadequate. Same applies to resource, their use and environmental change because of shieling activities. Were shielings a place to produce exclusively dairy products or did people make use of woodland and peatland in the

vicinity of shieling sites? To what extent can their settings in the landscape help us understand choice of location and the significance of shielings in the pre-industrial agricultural system? In general, the agricultural and environmental histories require a much firmer understanding of the rise and fall of the Icelandic transhumance system.

Each paper in this session provides key evidence from relevant discipline and is based on recent findings in the first large-scale and interdisciplinary work on Transhumance in Iceland, the TransIce project.

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Paper 1:

Gylfi Helgason, Institute of Archaeology, Iceland

Shielings in Eyjafjörður, N-Iceland: Some landscape pointers

This paper centres on the diverse landscape of shieling sites in North-Iceland. Data gathered from archaeological walk-over surveys in Eyjafjörður will be examined to identify and describe the spatial pattern of shielings and give us a better idea concerning their role in the agricultural system: did shieling locations have a preference regarding slope or elevation and how are those different from other types of settlements, eg farms? Are shielings located near other types of natural resources such as water sources and peat for cutting?

A major issue that is facing archaeologists and other scholars interested in transhumance in Iceland is the lack of clarity on what constitutes a shieling site and their landscape settings. Is the ruin a shieling, a sheep house, or an abandoned farm? Or even all of the above? So far, the most secure evidence to identify a shieling is the place name (sel) but even that is open for scrutiny. The fundamental reason for this lack of common framework is that the study of shielings' landscape has been sporadic in Icelandic archaeology and is mostly comprised of small-scale attempts. By comparing and contrasting landscapes of different settlements in the valleys that lay in Eyjafjörður, this paper seeks to improve our understanding of the place of shielings in the mountains and provide fresh insight regarding their role in pre-modern agricultural system in Iceland.

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Paper 2:

Árni Daníel Júlíusson, Stefansson Arctic Institute, Akureyri, Iceland

The booms and busts of shieling operations in Eyjafjörður 900-1900

The central North Atlantic area is characterised by colonisation from Scandinavia. Among the exports from Scandinavia to the central North Atlantic was shieling operation, the operation of summer farms in ecological circumstances that usually differed from the home farms. The known historical shielings tended to be in a higher elevation than the winter farms, utilizing ecological space in grasslands that otherwise might be underutilized.

The history of the shieling operations was very eventful, with sudden bursts of activity and building of new shielings that just as sudden died down, only for the story to repeat itself at a later date. The talk will discuss the reasons for building summer farms, and the impact of various factors that influenced shieling distribution and number. Among those factors can be mentioned population growth, changes in the agricultural system, climate factors and the impact of trade, government and manor management. These factors will be discussed in relation to the social, economic and environmental development of two adjacent valley systems in Northern Iceland, Svarfaðardalur and Hörgárdalur. Were the shielings present from the beginning of settlement in Iceland? It seems that there was a period of shieling boom in the middle ages, why did that happen? Why did it die down, and what was the reason for the decline in shieling operations? When did thing pick up again, and in what way? The example will be connected to the wider central North Atlantic history of shieling operations through 1000 years.

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Paper 3:

Julia Esch, University of Iceland, Iceland

Egill Erlendsson, University of Iceland, Iceland

Guðrún Gísladóttir, University of Iceland, Iceland

Transhumance in Iceland: Complexities Evaluated from Palaeoecological Signals

Iceland was mainly settled by Scandinavian people around 870 CE. As a result, a society which emphasised pastoral farming emerged, with transhumance (a key feature of historical pastoral farming) as a common practice. This practice included the seasonal movement of labour and livestock (mainly milking cows and ewes) to remote summer pastures. The potential significance of transhumance to environmental change can be noted in over 2100 sites across the Icelandic landscape in which there are small characteristic turf houses known as shielings.

Intact peat strata preserve records of vegetation change and landscape stability that we can track through high-resolution palynological and sedimentary analyses respectively. Our study sites are located in Svarfaðardalur in North Iceland and Kjarradalur in West Iceland, from where we have sampled intact, stratified peat monoliths. Data collected from the analysis of these samples are placed into chronological frameworks with a primary focus on key tephra layers (layers containing ejected volcanic material) within the peat. This information allows us to examine the trajectories of terrestrial ecological responses to concentrated grazing pressures exerted by transhumance-related activity, and the releases of such pressures; moreover, the data allow for the examination of discrepancies in the onset of shieling activities, (dis)continuity in these activities, and the evaluation of the environmental cost at which the transhumance system operated. The provision of palaeoecological data for interdisciplinary approaches to environmental and agricultural histories will be assessed on this basis.

0207-270 on Tuesday, 22.08.2023, 14:15-15:45

Unitobler – F 022

Caring for the Commons: Secured common property, economic transformations and commoners' vulnerable identity landscapes in European mountains and plains

Organiser:

Tobias Haller, University of Bern, Switzerland

Chairs:

Ilkhom Soliev, University of Halle, Germany

Abstract:

This panel puts the issue of European commons under change at the center. It focuses on how commoners with secured common property tenure rights in alpine and lowland areas care for their land and land related common-pool resources (pasture, wildlife, fisheries, water, forestry) and how this care is connected to local identity. Furthermore, the panel explores how commoners cope with increasing economic, ecological, state and EU-related pressures. Regionally, we include contributions on alpine areas (Austria, Switzerland, Italy and Spain). The panel will indicate similarities and differences of these contexts, in which old commons with their institutions have to adapt and new forms of commons also emerge. It focuses on local strategies and innovations related to the past and how these cannot be explained by economic and/or ecological reasoning alone, but rather by notions of identity of caring for the common land as cultural landscape. However, the papers indicate that these strategies are faced with two kinds of challenges from external actors: First, the pressure regarding rentability and state/EU-related subsidies defined without participation by the commoners and second the pressure of an externally defined ecological imperative in the context of SDGs policies (biodiversity conservation, protection of predators, green energy). The papers argue that

differences in the bargaining power of local commoners related to local municipalities, national and EU-related administrative actors focusing on SDGs implementation matter for commoners' capacity to maintain their cultural landscape, which is vital for their resilience.

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Paper 1:

Lisa Rail, University of Vienna, Austria

Claiming Value: On the Role of Unprofitability and the Struggle for Socio-Cultural Appreciation for the Future of Pastoral Commons in the Austrian Alps

Small-scale transhumant animal husbandry in the Austrian Alps is under economic pressure: farms in mountainous areas cannot compete with less labour intensive, scaled-up milk and meat production in the lowlands. This is pertinent for the past and future persistence of alpine commons. On the one hand the remoteness of these commons has been suggested as reason for why they have not become subject to enclosure. On the other the non-viability of mountain farms has led to substantial closures of farms and the abandonment of alps since decades. Many alpine commons struggle to stock their pastures and to share the workload of managing them with few remaining farming members. In this context the explicit mobilization of non-economic value plays is crucial for the maintenance of alpine farming and its commons: internally farmers explain their livestock keeping in terms of identity, the beauty of work processes, and tradition; externally the maintenance of alps is framed as care for a biodiversity-rich and cultivated landscape – as ecological and cultural service for the public, for which farmers and rural politicians, as well as higher level civil servants demand monetary reimbursement. Beyond this ethnographic context I take the paper towards broader conceptual considerations, namely towards the role of theories of value for understanding the commons. I propose going beyond the Ostromian framework of collective action as ultimately the outcome of individuals weighing costs and benefits and instead stress the indispensable role of identity, cultural valuation, and social cohesion among commoners for the continued care for commons.

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Paper 2:

Tobias Haller, University of Bern, Switzerland

Balancing the Commons in Switzerland. Between identity value, financial drudgery and the ecological imperative

Since Elinor Ostrom published «Governing the Commons», referring to Netting's «Balancing on an Alp», Swiss commoners' organizations are perceived as being THE case against the tragedy of the commons and the avenue towards sustainability. The proof was the way these farmer groups were crafting and maintaining institutions for the sustainable governance of their forests, pastures and water sources. The project SCALES had a look at this labelling using interdisciplinary (history, anthropology, geography and political science) and comparative research in five areas in Switzerland (covering German, French and Italian speaking parts). The aim was to understand how these commoners' organizations were able to adapt to market and state conditions from the 1750s until today. The project shows that since the reduction of the value of common-pool resources such as timber and pasture related agricultural products, the commoners are under high economic pressure, which the subsidies from the state cannot fully address. At the same time, commoners' organizations cope differently with this challenge and despite of relatively secured common property ownership have to balance with market (low prices) and state (economic and ecological rules for subsidy payments and SDGs implementation ignoring the commons) conditions. The results of the project show that commoners' organizations coping success was related to a) high bargaining power in relation to state, cantons and municipalities, b) their identity value regarding their cultural landscape ecosystems as well as c) their capability to find new solutions in a kind of a «Swiss commons lab», helping to cope with financial pressures.

Paper 3:

Antonio Manzoni, Sant'Anna School of Advanced Studies Pisa, Italy

Commons as the «great absent» in the EU agri-food and agri-environmental policy making: the case of Italy

According to EUROSTAT (2013), approximately 9 million hectares of EU land is constituted by customary common lands (pastures, grazing lands, forests). This means about 7% of the total Utilized Agricultural Area (UAA). This percentage rises to even 9-10% of the EU territory, if we account also coasts and forests. An example of extent and forms of collective management of forests is given in the latest global report on forest ownership (FAO UNECE 2020). Besides, in the last decades several examples of more contemporary commons have been flourishing all over Europe (CSAs, urban gardens, and closely related initiatives, mostly embracing agroecology). Common land governance offers a greener, more sustainable, and resilient alternative to intensive agricultural land tenure systems, which is why most collective lands across Europe are considered officially protected (e.g., under the Natura 2000 Framework). However, there is not even a single mention of the commons neither in the incoming CAP (2023-2027) nor in the EU Green Deal with its associated strategies (Biodiversity & Farm to Fork Strategies, Climate Law, etc.). We claim that this «invisible reality» of the commons cannot be ignored, especially in light of its new environmental ambitious targets. Both contemporary and customary commons can constitute a point of departure for the EU to develop socially inclusive instruments that are sensitive to ecology. The case of Italy will show this process.

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Paper 4:

David Fontan, Universidade de Santiago de Compostela (USC), Spain

Roque Sanfiz Arias, University of Santiago de Compostela (USC), Spain

Commons against fires. Developing new models of management in Galician communal lands

In Galicia (NW Spain) there are 3000 communal lands that represent 22% of the Galician territory. In the past, these areas played a central role as a support and driving force for agrarian systems, providing fertiliser, food for livestock, firewood and a multitude of products. Nowadays, the commoners' organisations adopt different ways of management, among which the model of forest monoculture — inherited from the dynamics established during the Francoist dictatorship, which plundered and managed the common lands for several decades — stands out. However, progressively more communities are deciding to embark on the path towards new models based on concepts of multifunctionality and sustainability, which at the same time connects them with their historical heritage. In our presentation we will focus our analysis on two cases located in the region of Barbanza, which decided to modify their management after facing severe fires: the community of Baroña, with a well-established model over the last 15 years; and the Plataforma en Defensa do Monte, an organisation that brings together eight commoners' organisations in the municipality of Rianxo that seek to implement an integrated model of land management. From our research, carried out within the framework of the Laboratorio Ecosocial do Barbanza (barbanzaecosocial.org), a research-action project we are involved in since 2020, we will discuss the difficulties and potentialities they face in developing these models, their bargaining power in relation to public and private actors, as well as the role that local identity and horizontal decision-making play in the process.

0208-413 on Tuesday, 22.08.2023, 14:15-15:45

Unitobler – F 023

Urban conflagration, «a remorseless saga of Europe»? Preventing urban fires in medieval and early modern times, environmental and socio-political perspectives from Europe and beyond

Organiser:

Dániel Moerman, Vrije Universiteit Amsterdam, The Netherlands

Chair:

Petra J.E.M. van Dam, Vrije Universiteit Amsterdam, The Netherlands

Abstract:

Fire historian Stephen Pyne purported the idea that urban conflagration constituted 'a remorseless saga of Europe, as endemic to its combustible cities as rats and disease' (Pyne, 1997, p.51). Premodern cities were indeed highly fire-prone, and their fire-trajectory largely similar to that of wildlands due to the large-scale presence of highly combustible wooden structures. Major conflagrations during the early modern period, most prominently the Great Fire of London in 1666, led to a slow transition in which urban fire gradually came under control during the following centuries. Frost and Jones (1989) famously claimed the existence of the 'fire gap', by which they claimed that since the mid-nineteenth century urban conflagration had decreased significantly throughout Europe and North-America. Others, like Zwierlein (2011/2021), have argued convincingly against the idea of a modern 'fire gap', as the following already becomes visible in parts of central Europe as early as the 1700s. Bankoff (2012), amongst others, also argued for a more distinctive Asian fire-regime, which, compared to the European, was less concerned with the protection of properties, given the traditional use of specific materials and construction practices. This implies that history of fire prevention is much more complex and regionally diverse, and, as recently argued by Garrioch (2019), does not follow a linear trajectory from fire-prone medieval settlements to modern inflammable cities. The history of urban fires is, instead, non-linear and shaped by an intricate entanglement of environmental and socio-political elements, which constituted the many changes that made cities better able to cope with the threat of urban conflagration over time.

This panel aims to bring together different perspectives on the prevention and fighting of fires in medieval and early modern cities, which display an entanglement of environmental and socio-political elements, including climatic factors like drought, and new ideas regarding urban planning and fire prevention. Specific topics that will be addressed are the idea that the 'fire gap' in certain parts of Europe, such as the highly urbanised Low Countries, seems to have started even earlier during the late medieval period, or took a different form, as in Tokugawa Japan during the seventeenth century.

References:

G. Bankoff, 'A Tale of Two Cities: The Pyro-seismic Morphology of Nineteenth-Century Manila.' In *Flammable Cities: Urban Conflagration and the Making of the Modern World*, eds. G. Bankoff, U. Lübken, J. Sand, 170-190 (Madison, 2012).

L.E. Frost and E.L. Jones, 'The fire gap and the greater durability of nineteenth century cities', *Planning Perspectives*, 4 (1989), 333-47.

D. Garrioch, 'Towards a Fire History of European Cities (Late Middle Ages to Late Nineteenth Century)', *Urban History* 46 (2019), 202-24

S.J. Pyne, *Vestal Fire. An Environmental History, Told through Fire, of Europe and Europe's Encounter with the World* (Seattle and London, 1997)

C. Zwierlein, *Der gezähmte Prometheus. Feuer und Sicherheit zwischen Früher Neuzeit und Moderne* (Göttingen, 2011) / *Prometheus Tamed. Fire, Security, and Modernities, 1400 to 1900* (Leiden/Boston, 2021).

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Paper 1:

Janna Coomans, Utrecht University, The Netherlands

Fire Risk and Urban Environmental Adaptations in the Low Countries, 1300-1600

Medieval townsmen and women have been portrayed as fatalistic and apathetic in the face of disaster – fire, plague, and famine were alike in this sense – because they likely generally believed that adversity was ultimately a punishment by God. While spiritual support certainly helped to fend off misfortune, this by no means negated practical causes and precautions. Fire was as indispensable as it was dangerous in pre-industrial cities. The threat was especially urgent where building with wood and thatch was standard, including in the exceptionally urbanized Low Countries between 1300-1600. The history of fire offers insight into the ways communities deal with self-inflicted risk and how that, in turn, transforms them. Even more than by disasters as such, transformation was created by the politics of preventing fires. Firefighting expressed good citizenship and neighbourliness, but also negotiations between local residents and authorities. Moreover, the subsidizing of the material transformation of the city from hazardous to safer materials, especially of roofs, reflects how much fire prevention could shape a local urban community. This paper examines that transformation in several Netherlandish cities.

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Paper 2:

Dániel Moerman, Vrije Universiteit Amsterdam, The Netherlands

Drought, water provisioning, and the prevention of urban fires in early modern Deventer and Zutphen, 1500-1900

Drought constitutes an important natural element that can increase the risk of fires, as hot and dry weather create the ideal environment for a tiny spark to create a major disaster. Another aspect that was generally affected by drought during the premodern period is the provisioning of water, which could severely hamper firefighting activities. A 1684 fire ordinance from the city of Zutphen in the eastern Netherlands aptly remarked that the use of buckets or fire extinguishers, 'would be fruitless without the means of water'. However, compared to the heightened risk of fire during dry periods, drought-induced water shortages have often remained a rather sidelined aspect of early modern firefighting. This presentation aims to bring forward these two elements by elaborating on the extent of which the prevention and fighting of fires was part of the development of risk-mitigating strategies against drought, in particular by addressing the role of water provisioning and how it was shaped around activities aimed at preventing major fires from occurring. The two cities featured in this research, Deventer and Zutphen, saw no major conflagrations after the fourteenth century. Nonetheless, they developed a wide set of regulations and strategies to prevent disastrous fires from occurring during severe droughts. This presentation will show that the prevention of fires relied heavily on the ability to preserve water and to keep the water provisioning via wells, pumps, moats, and cisterns, in a reliable state at all times.

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Paper 3:

Rosa Caroli, Ca' Foscari University of Venice, Italy

Rising from ashes: Rebuilding and resiliency in the aftermath of the Great Meireki Fire of 1657

The Great Meireki Fire is considered to have been the most devastating among the nearly 1,800 fires recorded during the history of Edo (renamed Tokyo in 1868) as the seat of the Tokugawa government

(1603-1867), as well as that which had the deepest effects on urban morphology. Important fire prevention measures were adopted in the reconstruction of the military capital: the decongestion of the city's districts by relocating warrior residences, religious sites, the pleasure quarter and townspeople, and widening streets and alleys; the construction of fire break roads, embankments along waterways and new escape routes from the most crowded townspeople's districts; the establishment of permanent fire brigades and nighttime fire-safety patrols; the installation of fire watchtowers equipped with alarm bells and drums, and rainwater tanks, barrels and pails in each house. These measures did not prevent Edo from remaining a flammable city which, as a Japanese scholar notes, "nevertheless continued to successfully battle large fires". Besides the improvement of the firefighting systems, it was made possible by several factors, including the disaster resilience of Edoites, particularly among the townspeople. This contribution aims to explore this resiliency capability considering the political and social context, as well as the reasons behind the choice of alternative solutions to the employment of more fire-resistant materials in the repeated reconstructions of the city.

0209-C26 on Tuesday, 22.08.2023, 14:15-15:45

Unitobler – F-105

Views and conceptions of nature

Organiser:

ESEH Programme Committee

Chair:

Kadri Tüür, Tallinn University, Estonia

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Paper 1:

Samuel Grinsell, University College London, United Kingdom

The vertical in low landscapes: Visualising East Anglia and the Low Countries in the long nineteenth century

The coasts of the southern reaches of the North Sea are characterised by flat landscapes, sometimes lying below sea level. Human infrastructure thus looms large here: windmills, sailing ships, water towers and lighthouses all stand out and feature as major subjects in the art of the region. This paper looks at how these vertical structures were visualised by painters and photographers in the modern era, placing the vertical within a cultural history of the production of flat or lowland landscapes.

These landscapes did not lack vertical content before the nineteenth century: church spires, windmills and sailing boats were already prominent on the skyline. However, the industrial revolution and subsequent stages of mechanisation saw a growth in new vertical structures, notably lighthouses, water towers and power stations. Boats grew in size and the sail progressed from being associated with high speed, for example in images of tea clippers, to conjuring a bucolic past in contrast to the plumes of smoke rising from coal-powered vessels. These plumes of smoke came also from railways, pieces of horizontal infrastructure that nonetheless changed the skyline.

Drawing on work in architectural history (Chattopadhyay, 2012 and Christensen, 2017) and cultural geography (Matless, 2014), this paper hopes to trace the changing ways in which flat landscapes were imagined through eruptions of the vertical. It will contribute to the emerging field of Anthroposcenic studies (Matless, 2018), which seek to understand how the production of the new climate regime has been visualised, bringing together climate and landscape histories.

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Paper 2:

Sebastian Lundsteen, University of Stavanger, Norway

Not true, but also not not true: Reflections on Rumors About Pollution in Denmark 1950-2020

Cheminova, a Danish company producing pesticides since the 1950s, has been an ambivalent entity to the community living in the vicinity. Since its advent, it brought a prosperous production, but also a substantial problem of chemical waste. The waste, consequently, became a problem of pollution, much of which still saturates the local area. Despite a self-proclaimed politics of being open to the public, its production and pollution have been shrouded in secrecy, giving leeway to the emergence of rumours.

This presentation tries to understand pollution and its source, not as a concrete physical matter or as a health-related issue but as a rumor-producing phenomenon having a substantial social agency. As such, chemical production and pollution initiate flows of information, and rumours channel, subvert, or distort such flows making information a contested space. Following anthropologist Michael Taussig, who proposes that a public secret is to know what not to know and therefore making it the most interesting, powerful, and ubiquitous form of knowledge. I argue that rumours are ways of revealing such secrets, penetrating the surface through ambiguous discourses. Rumours can be an act of revealment that uncover hidden voices, potentially surfacing repressed information. This presentation situates historical approaches in a territory riddled with contestation and uncertainty and suggests an engagement with rumours in order to understand how pollution and the function of information shape social realities.

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Paper 3:

Sara Pinto, University of Porto – CITCEM, Portugal

Through mountains and plains portraying women's stories: the female condition in Portugal, in the mid-20th century

In the 1940s, during the dictatorship of the Estado Novo political regime, a woman set herself a difficult task: to travel across Portugal in search of women, to draw their portraits, and to tell their stories. As she made her way through the territory, this woman - Maria Lamas - established a profound relationship between the landscape she observed and the human community she encountered: «The travellers' eyes lose themselves in horizons of mountain ranges, distinguishing, isolated in the grandiosity of the panoramas, villages, and places, with houses snuggled together, as if seeking mutual protection against the rigours of the climate and the remoteness of other settlements». Noting that the character of the highland woman reflected the harsh conditions of her existence, she perceives that «to note the predominant traits of a region is not indifferent to the knowledge of its inhabitants, in this case, women». Based on the observations made by Maria Lamas, whether in the mountainous regions or in the plain - coastal areas of Portugal, this presentation aims to contribute to an analysis of the relationship between landscape and human communities. Focusing on the perspective of women, it aims to present a historical analysis of female labour and living conditions through a comparison between two different landscapes: mountain and coastal.

0210-422 on Tuesday, 22.08.2023, 14:15-15:45

Unitobler – F-113

Climate history in close-up: Nordic perspectives in the early modern period

Organiser:

Martin Karl Skoglund, Swedish University of Agricultural Sciences Uppsala, Sweden

Chair:

Dominik Collet, University of Oslo, Norway

Abstract:

Climatic variability and change can be conceptualized as large-scale regional or global processes, but their effects on human societies are most perceptible at the local level. In the context of Nordic climate history, this panel will explore the potentials of local and regionally-based perspectives on climate-society interactions in the early modern period.

Within Europe, or even within parts of Europe like the Nordic countries, there is notable spatio-temporal variability in climate as well as in climate-society relationships. Regions in northern latitudes are often perceived as contexts where agriculture was predominantly constrained by growing season temperatures. However, spats of extreme cold were not the only nor necessarily the most important climatic or weather-induced environmental risk that people in early modern Nordic societies were exposed to. For example, several historians have proposed that since at least the 18th century, summer drought was a greater agrometeorological threat than cold in the southern half of present-day Sweden. Flooding could also have severe consequences, especially at the local level. Climate-disease relationships further complicate environmental risk-patterns in pre-industrial societies.

This transdisciplinary panel, spanning different historical disciplines, dendroclimatology and human geography explores how climate and weather has affected people and their livelihoods in different Nordic regions during the early modern period. Emphasis is on local and regional perspectives and the use of transdisciplinarity in historical climate research. The presented cases will show that understanding regional heterogeneity is crucial to getting impacts right and that spatial integration of climatological and historical data can challenge previous interpretations.

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Paper 1:

Tzu Tung Chen, University of Gothenburg, Sweden

Historical malaria in the Nordic countries and its associations with weather conditions.

Plasmodium vivax malaria was widespread in many parts of Europe during the 18th–19th centuries. In northern Europe, the presence of endemic malaria was especially prevalent along the coast and around big lakes. The fluctuation in malaria cases was observed to be associated with weather conditions, and in particular, summer temperatures. However, the effect of different levels of environmental exposures on the disease burden has not been identified. With historic malaria data from Sweden, Finland and Denmark, and using the quasi-Poisson distributed lag non-linear model (DLNM), we illustrated the exposure–response relationship linked to some important environmental factors, such as temperature, precipitation and sea level rise. Our results showed that the relative risk of malaria increased with warm temperature conditions and had the most significant effect at a lag of around 1-year. Although variations in precipitation amounts showed no significant effects on malaria, hydrological perturbations such as extreme sea-level rise (>99.5th percentile, or 1.5 m of sea-level rise) and subsequent saltwater intrusion, could have resulted in an increase in malaria transmission for low-lying coastal areas. Historical evidence of associations between rapid environmental changes, and their impacts on climate-sensitive vector-borne diseases such as malaria, highlights the urgent needs for evaluating potential risk of disease vector development under the present and future climate scenarios.

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Paper 2:

Oscar Jacobsson, Stockholm University, Sweden

Navigating environmental threats – local risk adaptation in early modern southern Sweden

Early modern agriculture in Sweden was a risky business. Farmers depended on their agriculture for self-subsistence – either reached through own consumption or exchange – and the paying of rents and taxes. Excessive rainfall, droughts or floods during the growing season could have disastrous consequences depending on the ways in which such events tied into the different structures and land uses of local agriculture. It is established that extreme weather events and especially floods were more common in Sweden during the late 16th and 17th centuries. Droughts also occur as a problem during this period but appear more frequently in records from the 18th century.

This presentation investigates different local strategies to negotiate different risks in agricultural land use during this period, focusing on selected areas in southern Sweden. Examples are given of how different topographies were used for specific purposes based on their physical geographical characteristics. Special focus is given to how local inhabitants navigated the threats of floods and droughts in their use of the land for both cereal and hay production. Documentary sources reveal how extreme weather and climate events affected different parts of agriculture in these areas, and both short-term and long-term coping strategies are raised.

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Paper 3:

Matias Kallevik, University of Oslo, Norway

Wendy Khumalo, Norwegian University of Science and Technology, Norway

On the margins of agriculture – regional responses to the early 1770s crisis in Norway

The early 1770s was a period of severe climatic fluctuations across the European continent and in parts of the Nordic countries. This development initiated widespread harvest failure, the spread of epidemic diseases, and increased mortality rates. To understand the complexities of these impacts on the local level, this paper explores how people in Trøndelag in the middle of Norway responded to the calamities of this period. This region was on the margins of agriculture and while most relied purely on farming, many combined this with fishing, forestry, or work in the mining industry – constituting a unique setting in a national context. The aims of this paper are twofold: first, it will present and discuss the climate reconstructions relevant to the study area and temporal scope. Second, it will show how different communities in the Trondheim region, ranging from farmers to expert elites, interpreted and responded to the crisis years of 1771-1773. This paper is a collaboration between one historian and one dendroclimatologist working on the same research project. Considering the differences in our formal training, we will also address our experience with an integrative approach to climate history.

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Paper 4:

Martin Karl Skoglund, Swedish University of Agricultural Sciences Uppsala, Sweden

What happen when the crop failed? Exploring subsistence strategies in central Scandinavia

Cereal cultivation in Jämtland and Härjedalen, located in the northern boreal zone, with a climate characterized by long winters and short cold summers can be justifiably described as marginal. Crop options were few. Before the introduction of the potato in the late 18th century, barley almost exclusively dominated the crop mix. Previous research has shown that dates of sowing and harvesting as well as harvest output of barley was significantly affected by spring and growing season temperatures. Frost-induced harvest failures were common. Given that opportunities for crop-diversification were low, this study explores what other subsistence strategies were pursued in this harsh environmental context, and how effective these strategies were in mitigating the temperature sensitivity of crop production.

In a mixed farming system, the most obvious alternative to secure subsistence when the crop failed would have been the livestock. However, in such a system, livestock and crops were mutually dependent on each

other, where for example livestock were partly fed with barley. Furthermore, the production of hay was also dependent on fluctuations in summer temperatures. Even though geographical distances in northern Sweden are large, and adjacent regions to Jämtland like Trøndelag also suffered from the risk of frost-induced harvest failures, trade has been proposed by previous research as strategy to increase resilience in the subsistence system. In order to explore these issues, this study employs a variety of sources, including official statistics, tithes, climate reconstructions, phenological data and other documentary sources.

0211-246 on Tuesday, 22.08.2023, 14:15-15:45

Unitobler – F-121

Reporting African environmental history: past, present and future

Different World Session: Flipping the Panels

Organiser:

Melanie Boehi, University of Lausanne, Switzerland

Chair:

Luregn Lenggenhager, University of Cologne, Germany

Presenters of the Different World Session:

Sindi-Leigh McBride, University of Basel, Switzerland

Ahmet Köken, University of Lausanne, Switzerland

Luregn Lenggenhager, University of Cologne, Germany

Discussant:

Melanie Boehi, University of Lausanne, Switzerland

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Abstract:

The panel brings together presenters whose research is concerned with the past, present and future of reporting African environmental history. Africa emerged as a key focus area in environmental history. Yet, in the Global North, knowledge about African environmental history has predominantly been disseminated by mass media productions like animal and documentary films. Often, these productions emerged in a colonial or postcolonial discourse that presented Africa as exotic and reproduced colonial as well as apartheid hierarchies. Even as reporting about the climate crisis is gaining complexity, when it comes to Africa, it often narrowly focuses on natural catastrophes or repeats colonial narratives that frame local people as poachers. Yet, African media producers have also countered these stereotypes with their own productions, in the fields of environmental journalism but also in other media forms, like photography and fiction writing. In contexts where professional journalism has increasingly been pushed to the margins, creative and artistic media have gained additional importance for reporting African environmental history. The panel brings together researchers to discuss: How has reporting about African environmental history evolved in the past and what were key themes? What are the cutting edge questions and methods for studying environmental reporting? What are future challenges and opportunities of reporting African environmental history, especially concerning collaborations between professional historians, archivists and journalists? Using the format of «poaching papers», participants won't present their own papers but each other's. This has proven to be an efficient format for extending the peer-review process and promoting scholarly generosity.

Technology, mobility and their challenges (H)

Organiser:

ESEH Programme Committee

Chair:

Finn Arne Jørgensen, University of Stavanger, Norway

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Paper 1:

Arthur Émile, EPFL Lausanne, Switzerland

Gasping for air. Mountain railway tunnels and the smoke problem (Alps – Massif central, 1850s-1940s)

Locomotive smoke and cinders stemming from coal combustion have represented an enduring nuisance in the age of steam, from a mere annoyance to an environmental risk. As the industry has been gradually acknowledged as a major contributor to urban air pollution and the risk of wildfires, the nuisance was considered as an issue regarding its social acceptance.

But if the idea of our ancestors' «fear of the steam train» has some truth to it, it would have more to do with railway tunnels, and especially mountain tunnels built from the 1850s onwards. Early alerts from physicians regarding traveller's health and safety because of the concentration of dangerous gas were ignored and publicly ridiculed at first. Though, the use of smokier coals in increasingly longer tunnels created a serious inconvenience and a life-threatening risk for both travellers and railway workers, especially in the long Alpine tunnels and the short one-tracked tunnels with strong ramps. The need and use of mechanical ventilation systems, smokeless fuels, smokeless furnaces, and various respiratory equipment for operating crews did not always keep up with the intensification of the traffic, causing multiples asphyxia events and sometimes deadly accidents by suffocation such as in the tunnels of Mornay (France, 1922), Ricken (Switzerland, 1926) and Balvano (Italy, 1944). The running of some problematic tunnels in the Massif central and the Alps reveal a common pattern: until the electrification of mountain lines, the risk management almost entirely fell on the firemen and enginemen's shoulders, with mixed outcomes at best.

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Paper 2:

Ekaterina Rybkina, Friedrich Alexander University Erlangen-Nürnberg, Germany

Mounted in the mountains: telegraph lines in the Caucasus, 1860–1930

This paper is devoted to the history of the emergence of telegraphic lines in the Caucasus. It focuses on the so-called Siemens line, which was part of the communication line that connected the British Empire and India. This paper argues that telegraphic lines in the Caucasus were not only a symbol of modernity, but also transformed the landscape of the region. The landscape makes these telegraphic lines special: some parts of them did not follow the existing communication routes (did not go along the railroads), but were mounted in previously uncharted areas. At the same time, the very landscape defined the usage of certain materials and technologies that were used for the montage of these lines. Geographical and climatic conditions also required special maintenance and local knowledge. Relying on published and archival sources, this study explores how the mountainous area, inconvenient for the telegraph construction and maintenance, turned out to be the only optimal connection hub for one of the most ambitious communication channels in the history of the telegraph.

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Paper 3:

William Gervase Clarence-Smith, SOAS University of London, United Kingdom (V)

Environment and culture in the employment of transport animals in the Balkans, c1300-1914

While terrain determined many differences in the employment of transport animals in the Balkans, culture played a part. Although historians have long recognised that Christian muleteers became successful merchants after around 1300, they have neglected the animals that they employed. «Muleteer» suggests pack mules, but the term is loosely applied to people driving any animal. The evidence actually shows that horses, for both pack and riding, dominated mountain routes, though camels, mules and donkeys also bore packs, and some mules and donkeys were ridden. Human porters shouldered heavy loads in narrow twisting urban alleys, and in some rural areas. Moreover, despite the mountainous terrain, wheeled vehicles featured more prominently in the Balkans than in Anatolia. Oxen and water buffaloes pulled most carts, wagons and carriages in plains and hills. Buffaloes were assigned to the heaviest loads, including artillery, while donkeys sometimes hauled carts over short distances. When speed or prestige mattered, horses drew wagons and carriages, and, briefly, stage-coaches and urban trams. Surprisingly, Fernand Braudel failed to note that mules were less numerous in the Balkans than elsewhere in the early modern Mediterranean. The proximity of the Eurasian steppe, with its numerous, cheap, and hardy horses, mainly explained a relative scarcity of mules. However, Islamic religious constraints on mule breeding, coupled with Turkic prejudices against mules, probably played a role. Furthermore, Ottoman experiences of bactrian-dromedary hybrid camels in Anatolia promoted their use in the Balkans.

0213-250 on Tuesday, 22.08.2023, 14:15-15:45

Unitobler – F-123

Across State Borders. Non-Human Species Mobility and State-Building in South-East Europe (19th and 20th Centuries) (H)

Organiser:

Constantin Ardeleanu, New Europe College, ISEES, Bucharest, Romania

Chairs:

Marcus Hall, University of Zurich, Switzerland

Abstract:

The making of modern states in South-Eastern Europe came, starting with the 19th century, with various forms of cross-border cooperation or conflict. This panel aims to look how states in the Lower Danube region dealt with the mobility of various non-human species once state borders were fixated in the region.

Moving independently of any human activity – as part of seasonal migration patterns (as in the case of locusts or anadromous fish species) –, driven out of their habitats by deforestation or similar human activities of transforming nature (as in the case of bears) or carried as part of trading activities (as in case of sheep, pigs or bovines), the mobility of non-human species across state-borders has become increasingly visible once modern states took full control of their sovereign territory.

Regulating the movement of wildlife or domestic animals across state borders resulted in various forms of cooperation and conflict; on the one hand, in the case of locusts' invasion or the spread of epizooties, due to economic reasons, states aimed at looking to mitigate cross-border threats by establishing early warning systems, and failure to comply with such rules resulted in serious diplomatic disputes; on the other hand, with increasing capitalist exchanges or environmental concerns state authorities looked at ways of

protecting endangered species by creating better conditions for their cross-border mobility.

This panel aims to explore such phenomena in South-East Europe, across the vast Danubian plain that stretches, north and south of the river, from the Carpathian to the Balkan Mountains. An inter-imperial borderland, caught between the Russian, Austrian and Ottoman empires, the region was later reshaped politically with the coming of new nation states, such as Romania, Bulgaria, Serbia, Greece, etc. Participants aim to contribute to environmental history by showing the links between natural or human-made and human-accelerated disasters, state building and international cooperation. It will also look at the specific spatiality of cross-border non-human mobility: mountainous ridges, river fords and other natural and human-made transportation corridors.

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Paper 1:

Svetoslava Toncheva, Bulgarian Academy of Sciences, Sofia, Bulgaria (V)

Bears at the Borderline – Bulgarian-Greek Interactions for Brown Bear Conservation

Situated between Bulgaria and Greece, the Rodopi mountain range is an important habitat for the brown bear population in both European countries. While the species is protected by the EU and the Bulgarian and Greek legislation respectively, the (mostly) free roaming bears in the mountain range are main driving factor for various human-bear interactions, both historically and at the present time. While in some areas we evidence rather peaceful coexistence, the predominant human-bear relations are marked by conflicts, due to bear induced damage on livestock, crops, and property, causing predominantly negative attitudes towards bears among the local communities. However, there is historical evidence for transborder debates and/or co-operation between both countries aiming to support brown bear conservation. This paper explores these questions at the Bulgarian-Greek border, contributing to the more-than-human research scholarship by analysing how non-human lives gain significance in transborder debates and co-operation.

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Paper 2:

Daniel Cain, The Institute for South-East European Studies (ISEES), Bucharest, Bulgaria

Stefan Dorondel, Francisc I. Rainer Institute of Anthropology, Bucharest, Romania

The «House of Locusts»: Pests, Islands and the Troubling Border Relations at the End of the 19th and the Beginning of the 20th Centuries

This paper analyzes the tensed border relations between the Romanian and the Russian Empire at the end of the nineteenth and the beginning of the twentieth centuries due to yearly locust invasions. The insects' invasions created a huge economic problem for the three riparian countries, all with an economic emphasis on agriculture: Romania, Bulgaria, and the Russian Empire (in its Western provinces). Contesting the containing policy of insects of the newly emerged Romanian nation-state, the Russian Empire sought to extend its influence towards West. Exploring the historical context and the policies of the Romanian state for mitigating such waves of insects – whose places of breeding were identified by the scientists of those time on the Danubian islands of the Romanian Dobroudja region (seen as a true "locust country") – the paper explores the diplomatic relationship between riparian countries whose diplomatic language engaged a war vocabulary against the locusts. Based on archival materials we show how Nature is engaged in the policy development of the Romanian state, in creating problems for building the capitalist agriculture, but also how locusts are used discursively to control the ethnic melting pot Dobroudja province was at the end of the nineteenth and in early twentieth centuries. The paper contributes to the environmental history of Eastern Europe, but also to the more-than-human approach to historical events.

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Paper 3:

Stelu Serban, ISEES Bucharest, Romania

Invasive Species and Local Knowledge on the Bulgarian Lower Danube

In the last 50 years, Lower Danube has undergone major mutations because of massive anthropogenic intervention. The impoundment of both banks, Bulgarian and Romanian, as well as the construction of the hydropower plant at the Iron Gates drastically changed the hydrology and geomorphology of the Danube. The higher Bulgarian side, having a different limestone structure than the Romanian shore, recorded the most profound changes. Erosion as well as the much more dynamic movement of the islands has led to the emergence of unstable or gravel-filled soils unfavourable to native animal and plant species. Their place was taken by invasive species extremely aggressive, but also with great adaptability. For Bulgarian local communities, the general picture is that of a real catastrophe. Still, beyond this perception, they managed to adapt their practices to the new life of the river. If, for example, fishermen can no longer fish in the former meadow, now they do so near the islands, where the waters are more welcoming to many species of fish, including invasive ones, such as Chinese carp. Islands now covered in invasive plants, amorphous, cucumber and wild vines, are also visited for their splendid beaches. The paper is based on a field anthropological research conducted in a multidisciplinary team. The perspective of environmental anthropology assimilates data of geomorphology and biology of the Danube River.

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Paper 4:

Constantin Ardeleanu, New Europe College, ISEES, Bucharest, Romania

Epidemics, Epizooties and Cross-Border Concerns at the Lower Danube in the Long Nineteenth Century

The Lower Danube became, since the 19th century, a busy transportation corridor for the resources of local states (the Ottoman, Russian, Habsburg empires, Wallachia, Moldavia, later Romania, Bulgaria, Serbia). With the region hit by several waves of epidemic diseases (mainly the plague and the cholera), establishing institutions of defending state borders against such threats was only natural. This paper aims to compare and contrast how local states developed instruments and policies of combating the mobility of epizootic diseases. With the export of sheep from the Danubian principalities to the Istanbul market in Ottoman market in early 19th century or the huge trade in Serbian pig towards Habsburg territories, epizooties were often the object of intense diplomatic conflict and cooperation. Based on a variety of Romanian and international sources, this paper will also look at the transfer of knowledge, technology, and human resources in fighting epidemics and epizooties in an inter-imperial periphery.

0214-167 on Tuesday, 22.08.2023, 15:45-16:30

Restaurant Ali Baba

Cafè de l'Environnement I

Different World Session: History Café

Organiser:

Daniel Marc Segesser, University of Bern, Switzerland

Abstract:

Are you – a doctoral or postdoctoral researcher – keen to present your research in whatever aspect of environmental history and to get to know new colleagues in field? The Café de l'Environment is just the place for this. Here you can get into contact with others, present your research questions, get a short feedback to the presentation of your ideas, projects, etc. and you can give feedback to others. All this will be done in a very informal atmosphere, with coffee and something small on top at no extra cost.

All you need to bring, is your ideas, projects, questions etc. in a form that takes no longer than five minutes to present, an openness to discuss somebody else's ideas, projects and questions, and if you have friends and colleagues, who are also eager to discuss new ideas, projects or questions on environmental history. The only thing that remains is: Welcome to the Café de l'Environment.

If you are a professor or settled researcher, you are of course also welcome to the Café de l'Environment, your role will just be slightly different, as you will be asked just to give encouraging feedback to those, who are presenting their ideas, projects or questions.

15:45-16:30

Mensa/Entrance Area UniS & Unitobler

Coffee Break

0300-387 on Tuesday, 22.08.2023, 16:30-18:00

UniS – S 003

The Dark Side of the Alps: Critical Perspectives on Technology and the Environment (H)

Organiser:

Chase Galis, ETH Zurich, Switzerland

Chairs:

Chase Galis, ETH Zurich, Switzerland

Tatiana Carbonell, ETH Zurich, Switzerland

Abstract:

In 1816, Mary Shelley took a holiday with her friends to the Villa Diodati, located just north of the French Alps, where she penned the first draft of Frankenstein, or the Modern Prometheus. The guests of the house were forced to remain inside through their stay due to a sudden change in climate—characterized by cold temperatures and dark skies resulting from a volcanic eruption in present-day Indonesia. The consequences of this environmental catastrophe pushed Shelley and her friends to write horror stories throughout their stay, leading to the creation of one of gothic literature's most celebrated monsters—a man-made being, brought to life through the combination of technical and natural intervention.

This panel will mine horror and its various sub-genres to reveal critical perspectives on the relationship between technology and the environment—as in the case of Shelley, through the hybrid form of the monster, a figure bridging the man-made and the natural. The genres of horror twist standard expectations of society and reveal underlying anxieties that already structure our relationship to the world. A fundamental aspect of modern life relies on the predictability that is ensured through technological control over nature. When these relationships start to collapse, fail, or produce unexpected (e.g. monstrous) results, we are forced to reconsider their stability.

Taking the Alps as the site of analysis, this panel will explore how mountainous regions—through their extreme scale, treacherous terrain, and unpredictable weather conditions—have served to destabilize technological paradigms in literary and artistic works of horror. The representation of the Alpine environment in each case takes a historically contingent form, challenging particular aspects of modernity

and revealing hidden fears of its future. Presenters in the panel will explore these themes through three respective sub-genres of horror: the demonic, the sublime, and the uncanny.

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Paper 1:

Helen Moll, Ludwig Maximilian University Munich, Germany (V)

Demonic Industry and Spooky Capitalism: The Relationship between Environment and Technology in Ludwig Tieck's *Der Alte vom Berge*

In 1816, Mary Shelley took a holiday with her friends to the Villa Diodati, located just north of the French Alps, where she penned the first draft of Frankenstein, or the Modern Prometheus. The guests of the house were forced to remain inside through their stay due to a sudden change in climate—characterized by cold temperatures and dark skies resulting from a volcanic eruption in present-day Indonesia. The consequences of this environmental catastrophe pushed Shelley and her friends to write horror stories throughout their stay, leading to the creation of one of gothic literature's most celebrated monsters—a man-made being, brought to life through the combination of technical and natural intervention.

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Paper 2:

Maddalena Napolitani, Università dell'Insubria, Varese, Italy

Representing the Alps: Sublime Poetics, Science, and Techniques. A French case study in the second half of the 19th century.

In 1834 the geologist Elie de Beaumont published the results of some of his research in the French Alps in which he employed the Theory of Catastrophe, used by this time in geology, to explain the extent of some phenomena beyond the moment of the scientific observation (Savaton, 2019). According to Beaumont, these mountains were formed by a series of sudden uplifting that he qualifies as «violent revolutions».

While de Beaumont was exploring the Alps, a similar way to conceive nature and natural phenomena as catastrophes was figuratively expressed by landscape artists through the romantic aesthetic of the sublime. This vision of nature slowly changed during the second half of the century, marked by major progresses in the field of geology, leading to both important technical achievements and collaboration between artists and scientists, producing a renewed iconography of landscape.

The aim of this paper is to question these new Alpine representations, showing the tension between their sublime—and sometimes horrific—characteristics and a technocratic vision dominated by the artificial element and technical progress—such is the case of infrastructure's representations in journals. To explore this tension within visual representation of the Alpine milieu, we will compare scientific illustrations of books and journals with some painted works, especially those of the Savoyard painter Claude Hugard

(1816-1885). His oeuvre shows a taste for sublime aesthetics, as well as that for natural catastrophes (his region was affected with numerous floods). Yet Hugard collaborated with numerous engineers and geologists (among them de Beaumont himself), and he tried to integrate the quest for scientific objectivity and progress with the romantic poetics that he cherished.

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Paper 3:

Carla Peca, ETH Zurich, Switzerland

Heidi's Hut: Finding the Uncanny in Alpine Refuge

While Johanna Spyri chose a simple alpine hut in the Swiss mountains as the location for her 1881 story Heidi, American artists Paul McCarthy and Mike Kelley decided to recreate it a century later as a life-size chalet for their video work of the same name. Once intended as a shelter from the harsh climatic conditions of the mountain world, this function of the alpine hut has now become obsolete. Building technology has advanced since industrialization to allow perfect control of the indoor climate and comfortable habitation of the once threatening mountain environment. McCarthy and Kelley's chalet is instead an uncanny place that transforms the domestic life of the mountain idyll into a horror scenario of gluttony, violence, and abuse. As a product of Romanticism, the Swiss chalet is *per se* an artificial product, composed of various construction elements of traditional log architecture. It is thus always already uncanny, as it combines familiar and alienated elements and can never be entirely homely. Spyri stylizes the mountain world in terms of Rousseau's philosophy of education as a place of growing up close to nature, where natural habits are reinforced, and stages urban space and cultural education as a foil for contrast. McCarthy, who otherwise uses the mountain landscape of his home town, Salt Lake City, as a projection surface to attack the purity of Mormon society, takes a similar approach with the Swiss mountain world. The control mechanisms of cultured society once thought to tame the forces of nature have simultaneously taken possession of the hut dwellers, whose brutality now manifests itself in their perverse acts. The moral tendencies that Spyri and McCarthy pursue in their Heidi works can also be found today in the current criticism of the decadence of the industrialized countries that have brought about the climate crisis.

0301-257 on Tuesday, 22.08.2023, 16:30-18:00

UniS – A-022

Life beneath the waves – imagined, encountered, and exploited (2/2)

Organiser:

Matti Olavi Hannikainen, University of Helsinki, Finland

Cordula Scherer, Trinity College Dublin, Ireland

Chairs:

Matti Olavi Hannikainen, University of Helsinki, Finland

Abstract:

This session explores life beneath the waves from the darkness of deep-sea plains to the mountain streams. We encourage environmental historians and scholars from other disciplines to explore different forms of aquatic life that flourishes between the terrestrial mountains and the ocean floor. We welcome papers that address different perspectives on life beneath the waves ranging from sea-monsters that were imagined or new species that were encountered and species that have been known and exploited for centuries. We envisage the plurality of «seafood» as one conceptual starting point of this session because less-profitable species of fish in particular remain overlooked despite the fact that they comprise over 90 % of all fish species between the mountains and the sea floor.

Moreover, the session aims to take a broader approach on life beneath the waves experimentally explored as the Good, the Bad and the Ugly. This includes the often-invisible foundation of aquatic life – primary producers - such as phytoplankton, sea grass, seaweeds and kelp forests that have played a vital role in supporting and destroying (Harmful Algal Blooms) aquatic life. Human exploitation of these underwater resources has been based on human defined characteristic according to which much has been considered bad due to odour, structure and/or taste. Similarly, some species have been characterized as ugly despite being beautiful beyond the human gaze. Hence, we welcome papers that explore different forms of aquatic life that have fuelled human imagination for millennia.

We propose a main session that will consist of two separate panels. We emphasise the local and the regional case studies that constitute empirical evidence for a more far-reaching global synthesis on sea life. In addition to the traditional narratives, this session welcomes papers discussing new perspectives, methodologies, approaches, and source materials providing us with new insights into life beneath the waves.

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Paper 1:

Barney Whelan, University College Cork, Ireland

Oozy, slimy, oily, slithery...what's not to like?!

To feed a burgeoning population, seafood consumption must increase in the coming years. Popular higher trophic level fish stocks are now overfished with some populations nearing economic collapse. Lower trophic level organisms comprise an extensive resource of protein and nutrition; these are not widely consumed anymore, despite their historical popularity. A successful shift from consuming higher trophic seafood to eating lower marine organisms will include direct consumption, processed product and by conversion to higher level species aquaculture presenting multiple implications for Food Security and Sustainability.

Encouraging the utilisation of lower trophic level organisms requires an understanding of why so many regularly avoid their consumption. This paper investigates the international and Irish Fisheries and Aquaculture contexts, historical and current; it also reviews the determinants of seafood consumption and specifically the role of Disgust. For this, it draws on various disciplines such as Fisheries, History, Food Security, Marketing, Philosophy, Psychology and Dietetics to name but a few. The Food Rejection/ Choice concept includes background on the cultural, cognitive, interpersonal, physiological, economic and sensory determinants of food selection. This diversity illustrates the opportunities and challenges of multidisciplinary studies;

The research objective of the work presented, was to achieve an understanding of the negative product emotion of Disgust, concerning seafood, with a focus on the stimuli attributes. Operationally, the work aimed to improve knowledge about the determinants of seafood consumption that will support practical presentation, product development and market communications, including the potential use of Moral Disgust concerning over-fishing.

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Paper 2:

Daniel Duarte Pereira, University of Minho Guimarães, Portugal

The Architectural Scales of Seaweed – The case of *Gelidium corneum* on the Portuguese Coast

Agar is a hydrocolloid extracted from agarophytic red seaweeds that is commonly used as a gelling and thickening additive, but it is also used in microbiological research as a support for bacterial growth.

Japan was the only country producing high-quality agar for microbiological research until the mid-twentieth century. The outbreak of World War II, and the resulting restrictions on global trade, prompted western laboratories to conduct coastal campaigns in search of agarophytic seaweeds in their oceanic waters. After

discovering them, the geography of agar production has since expanded to the West, resulting in an intertwined global system between seaweed harvesters and agar producers.

This essay proposes to deconstruct this geographic network by focusing on *Gelidium corneum*, a seaweed harvested intensively on the Portuguese southern coast since 1960. We explore a hypothesis in which *Gelidium corneum* is the common thread between various geographical scales and spaces, ranging from the microscopic to the territorial, and from sea to land.

Using the case study of Cabo Espichel, Portugal, it is possible to track the relationship that the different architectural devices built by harvesters and the agar industry had with the rocky sea bed, its bathymetry, and the oceanic hydrodynamics, which affected the growth and decline of marine ecosystems and the agar economy.

Using a specific seaweed to reframe the history of the built environment reveals a complex network of relationships between microbiology, marine ecosystem history, and architecture. It also suggests a new anthropic and urban narrative in contemporary architectural discourse that includes an environmental account.

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Paper 3:
Cordula Scherer, Trinity College Dublin, Ireland

Toxic Algal Blooms: natural disasters or human-made catastrophes?

The title of my paper was triggered by my involvement in the Oder river disaster in August 2022 where over 400 tonnes of fish and molluscs were killed by the highly toxic flagellate *Prymnesium parvum*. The single-celled organism reaches 8µm in size and is not visible to the naked eye, yet its rapid growth with over 100.000 cells per millimetre of water went through the Oder like a death wave. This begs the question: Do we take phytoplankton seriously enough?

Commonly, the explosive growth in phytoplankton is harmless and happens in the spring/early summer providing an essential food source for many aquatic systems. Only 2% of algae species are harmful or toxic capable of killing fish, other aquatic animals, mammals, birds and, rarely, humans.

These toxic algae bloom events occur since records begun. The bible describes the «First Plague» of Egypt, that «turned the Nile River red» which is consistent with a red tide event. Frequently, we find anecdotal evidence of toxic algae blooms and journal articles start in 1672. Descriptions include the deaths of dogs, cattle and birds after drinking water from lakes exhibiting a «hairy efflorescence».

Rapid growth of toxic phytoplankton is a result of multiple factors, including high water temperatures, high light penetration and slow water movement/circulation. Extreme weather events can trigger such blooms like cyclones, floods or drought usually when high nutrient concentrations are present. At what point does it become a human-made catastrophe and should we monitor the invisible life below the waves more closely?

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Paper 4:
Viktor Carl-Magnus Andersson, University of Oslo, Norway

Temporal and oceanic vertigo: knowledges and perceptions of deep-sea ridges and trenches in Scandinavian and North American post-war popular science 1947-1960

This paper concerns the formation, dissemination and reception of knowledges and notions concerning deep-sea ridges, plains, and trenches during the post-war period 1947-1960. It investigates how Abyssal and Hadal pelagic regions can be historicised as areas where ideas and notions of life, ecology, history and time have been contested and (re)negotiated. I interrogate the ways in which mountainous areas of the deep seas were engaged with and represented by Scandinavian and North American marine scientists who

had a particular interest in disseminating their work into a wider societal and public conversation. The source material consists of books, articles, lectures and exhibitions authored or curated by members of deep-sea expeditions, such as Hans Pettersson, Orvar Nybelin, and Torsten Gislén of the Swedish Albatross expedition in 1947-1948, and Anton Frederik Bruun and Torbjörn Wolff of the Danish Galathea expedition in 1950-52. By looking for implicit and explicit expressions of ecological, historical, and temporal conceptualisations in the material, and by situating these synchronically and diachronically in relation to relevant contexts and traditions of thoughts, I examine conceptualisations of deep-sea biology and zoology, vulcanism, and tectonics, as well as the dynamics between rationalistic and mythical language, the balance between the strange/alien and the integration into the known oikos, and between deep time and cultural time.

0302-C24 on Tuesday, 22.08.2023, 16:30-18:00

UniS – A-122

Uses of upland waters (H)

Organiser:

ESEH Programme Committee

Chair:

Sebastian De Pretto, University of Bern, Switzerland

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Paper 1:

Ekin Kurtic, Northwestern University, USA (V)

Uplands as Landscapes of Infrastructural-Ecological Value and Future Livability

While most humanistic and social scientific studies of dammed landscapes have focused on the drastic transformations in valley floors, this paper brings together historical and ethnographic research to attend to the socio-material changes the mountainous uplands undergo in the process of large dam construction. In Turkey, proliferation of dam projects since the early-republican period resulted in a renewed attention to and concern about the erosive character of the Anatolian landscape. State foresters produced knowledge about the inextricable connection between the mountains and the valleys and stressed the importance of land use regulation and forest conservation in the uplands as necessary environmental measures for proper and longer reservoir maintenance. My archival research on the technopolitics of dams in Turkey shows that foresters have long defined dams as more-than-technical infrastructures and framed their environmental expertise as a vital force serving the project of «building a prosperous nation-state» through public works. Today these efforts materialize in the form of a watershed rehabilitation project conducted in the Çoruh River Basin, where the country's tallest dam is under construction, enacting an environmental imaginary of uplands as places of infrastructural-ecological value. Moreover, the planned submergence of the Çoruh Valley turns the places above the reservoir elevation into sites of future liveability. My ethnographic fieldwork in the basin demonstrates how the valley inhabitants – the ones who have the means to do so – envision and seek after the possibilities of building a future life «on the lands touching the sky».

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Paper 2:

Judit Gil-Farrero, Independent Scholar, Spain

The Role of Pyrenean Glacial Lakes and their Waters in Human Societies: past, present, and future

In the Pyrenees there are thousands of glacial lakes, located at an altitude of between 1,600 and 2,600 metres. Despite their physical distance from the nearest towns, they have played an important role for human societies, both in economic terms and in terms of imaginaries and perceptions.

Since the beginning of the 20th century, electricity generation has been added to the traditional uses of water linked to the primary sector (livestock, agriculture, and fishing). In the tertiary sector, these uses began with the first and occasional hikers in the 18th century. However, the uses of these lakes have expanded dramatically due to the development of tourism and the emergence of mountain and adventure sports in recent decades. Moreover, in the traditional imaginaries, lakes were key elements in the folklore of mountain societies. Since the 20th century, many of them have been under some form of protection or are part of conservation areas. Protected or not, so-called wilderness areas are seen as places with positive effects on people's physical, psychological, and emotional health. Furthermore, glacial lakes are now also revealed as a testimony of anthropogenic climate change, which has reinforced their importance as an object of scientific study.

This paper focuses on the glacial lakes of the Spanish Pyrenees. It aims to explore the evolution and the different roles of these lakes and their waters in mountain and lowland societies, from the 19th century onwards.

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Paper 3:

Axel Cerón González, Ondokuz Mayıs University, Turkey (V)

An Arcadia in the Pacific: Agribusiness in Sinaloa, Mexico, 1880-2020

The Arcadia is an environmental history of modernized commercial agriculture in the Sinaloa Pacific plain, northwestern Mexico. Furthermore, it considers a novel category for environmental historiography: the soils as frontiers. Some other environmental and agricultural histories have analysed the role of agricultural soils or fertile lands. But in Arcadia, the elements involved in constructing the agricultural and fertile conceptions are recognized. Particularly, the soils are ubiquitous to their environment. Their constructed potential use is determined by political, cultural, and economic models. In fact, the fertility of Sinaloa was not perceived until the 1880s, during the Porfiriato liberal regime.

The soils of Sinaloa shaped the spaces for the construction of channels and industries for irrigated agriculture during 1880-1940. Aside, those soils have a name: Vertisols. The power of this geographical category later oriented the distribution of technology in Sinaloa during the second half of the 20th century: 13 dams were built where nature modelled Vertisols in the plain until agribusiness got control of all the Vertisols to irrigate them.

In this way, the Sinaloa agribusiness can be illustrated by two substantial frontiers: the Vertisols and dam frontiers. Furthermore, both sustain a traditional frontier in the agricultural historiography: the irrigated agriculture frontier. For this reason, the Arcadia proposal is based on soil categorization as a historical object for its role to explain the modification, construction, and appropriation of space phenomena as well as its impact on culture, economics, politics, environment, and demography.

0303-475 on Tuesday, 22.08.2023, 16:30-18:00

UniS – A-126

Socio-economic Resilience to Historical Floods: a Eurasian Perspective

Organiser:

Nicolas Maughan, Aix-Marseille University, France

Chairs:

Maurits Ertsen, Delft University of Technology, The Netherlands

Abstract:

Global climate change has sharpened focus on the social and economic challenges associated with extreme climatic events particularly floods. In view of global warming it is predicted that floods in the future will be more intense and more frequent. In this regard, knowledge of past climatic extremes and their impact is a research priority to derive predictive points of reference for adaptation and loss reduction. A better understanding of historical climate-driven extremes, which may range from several months to decades, on societies and in the functioning and productivity of different agro-ecosystems is also beneficial for other disciplines towards improving adaptation and mitigation strategies for predicted climate change.

This panel aims to explore rapid and short-term socio-environmental consequences as well as long-term changes induced by adverse effects of historical flood events (evidence of declining impact or increasing adaptability of societies). A particular attention is given to interdisciplinary approaches linking reconstructions of specific flood episodes from historical and natural archives and consecutive significant socio-economic impacts, migration waves, uprisings, famines, etc... as well as landscape changes and agricultural transformations at a local or regional scale in Eurasian perspective.

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Paper 1:

Andrea Kiss, Vienna University of Technology, Austria

Flood resilience, mitigation and adaption in the medieval Carpathian Basin

Flood is the best-documented natural hazard in the medieval kingdoms of Hungary and Slavonia. The quantity of contemporary data, especially in the 13th-early 16th centuries, allows the identification of flood-rich periods. Institutional sources and archaeological evidence provide ample data regarding resilience, flood mitigation and adaption strategies, particularly in the lowland or lower hilly areas. While some of the key adaption strategies – such as the settling elevations nearby water bodies, the defensive building strategies against floods and high groundwater levels – are traceable already in early medieval times, the evolution of these strategies can be recognised in late medieval sources.

Supported by case studies, in the presentation the main groups of mitigation and adaption strategies, detectable in medieval evidence are analysed. Results show a notable difference between the level of village and urban flood resilience. Mitigation and adaption failures and following evolution are more detectable in urban centres and significant riverine building complexes than in the villages, even if legal documentation and archaeological evidence generally provide an equally dense data coverage. This is particularly true along the Danube where flood frequency-, mitigation- and adaption-related sources provides the most detailed examples.

Artificial floods form a specific event group: caused by advert weather conditions and human mismanagement, flash floods of artificial origin were responsible for some of the greatest known flood disasters of medieval Hungary. Because of their high legal importance, some of these events were documented in great detail and provide valuable insight to late medieval mitigation and adaption strategies and failures.

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Paper 2:

Liang Emlyn Yang, Ludwig Maximilian University Munich, Germany

Dynamics and progress of flood resilience at the historical Tea Horse Road area

Concerns are rising that the earth system may reach some critical tipping points in the coming decades. Though, growing evidence also supports the potential of positive social development that could propel transformative changes towards sustainability. As part of the ERC Starting Grant «STORIES» (Spatial-Temporal Dynamics of Flood Resilience), this study proposed a systematic analysis on unique cases of flood resilience with a historical perspective.

More specifically, the study focuses on the historical Tea Horse Road area (THR), a mountainous region of the Southeast Tibetan Plateau with well-documented history going back over 600 years. We explored the multi-spatial-temporal features of flood resilience at the THR region, which covers the spatial differences (household, community, city and region) over the past 600 years regarding the governance, technology, society, and culture perspectives. Our current results indicated that, various strong and smart social regulations (governance, institutions, plans, management, motivations, orders, donations, dedication, etc.) enabled a wise development of water conservancy projects that consequently enhanced the resilience of local communities to hydrological hazards. The project aims to further establish a theoretical understanding of the spatial-temporal scales of flood resilience and model its spatial patterns and temporal evolution in the larger Mekong basin.

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Paper 3:

Nicolas Maughan, Aix-Marseille University, France

Highlighting recurrent low-amplitude floods: a fresh look at neglected events shaping river-society relationships (Southern France, 1700-1900)

In the Mediterranean world, water plays a prominent role as a «prime mover» in the development of urban and rural spaces. Since Antiquity, the chronic lack of freshwater could be limited thanks to large hydraulic infrastructures while the flood risk management has always been a recurrent problem for both rural and urban communities. Because of brief, intense and irregularly distributed rain, amplified by a mountainous topography, stream floods often are heavy and flash with catastrophic consequences. However, often only past extreme - catastrophic and extraordinary - floods were studied because both their consequences and available archival materials they have left while many recurrent low-amplitude floods have resulted in severe damages to hydraulic and road infrastructures, in loss of agricultural soils and in conflicts between citizens and administration. Indeed, these specific floods were a central problem for communities as well as for the management of water bodies. In this context, Mediterranean France, prone to multi-year recurrent floods for centuries, appears to be a perfect place to explore these questions.

First, after presenting an overview of socio-economic role played by rivers in the Provence area during the early modern period, we will analyse, on the one hand, the frequency and intensity of low-amplitude floods of seven different urban and rural streams for three centuries and, on the other hand, their subsequent environmental impacts. Then, we will show how local societies have coped with these hydrological events together with the progressive evolution of traditional uses of water.

0304-C22 on Tuesday, 22.08.2023, 16:30-18:00

Unitobler – F 005

Managing wildlife and biodiversity

Organiser:

ESEH Programme Committee

Chair:

Claudia M Leal, Universidad de los Andes, Colombia

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Paper 1:

Julia Nordblad, Uppsala University, Sweden

A History of Biodiversity as a Political Concept: The 1986 Forum on BioDiversity and the Struggle over Liberal Environmentalism

The concept of biodiversity was coined by a group of biologists in the mid-1980s with an explicit political aim: to draw attention from the wider society to the cause of accelerating species extinction. Although the history of biodiversity as a scientific concept has been well covered its political history is less known. This paper applies perspectives from the field of conceptual history to study biodiversity as a political concept. The paper examines the event that launched the term, the 1986 National Forum on Biodiversity in Washington D.C., organized by concerned biologists backed by the U.S. National Academy of Sciences and the Smithsonian Institution. This paper advances two arguments, first that biodiversity represents a distinct form of environmentalist language different from, and in some ways opposed to, the language of sustainable development, which also emerged in the late 1980s. Sustainable development quickly reached a paradigmatic status for environmental governance and international environmental cooperation, and it framed environmental protection and economic development as compatible goals. Free trade and economic liberalization were going to halt the degradation of natural environments. The paper's second argument is that the distinguishing aspect of the biodiversity concept was its challenge to the economic liberalism of sustainable development, and more specifically of economics as a viable tool for knowing and governing the natural world. The biodiversity proponents underlined the structural incompatibilities between economic models and the processes described by biology and ecology, and thus the need for a non-economic environmentalist language.

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Paper 2:

Ariane Cornerier, Université Paris-Saclay & Université de Versailles Saint-Quentin-en-Yvelines, CHCSC, France

Environmental history of the Vercors Massif (French Southern Prealps) through a case study of a rewilding initiative

Since the 1990s, terrestrial rewilding initiatives flourish throughout Europe. Mountainous areas are especially seen as opportunity areas by rewilders due to land abandonment and their relative wilderness character. The global climate crisis, the increasing erosion of biodiversity and the governmental climate inaction are the main arguments mobilized by the defenders of rewilding. Rewilding aim to redefine the coexisting relationship with wild nature, to question environmental policies of heritage protection of nature and are vectors of new spatial and temporal divisions between humans and non-human animals.

In 2019, a French association (ASPAS) bought a 500 hectares land to create a Wildlife Reserve in the Vercors Massif. This project triggered a significant local discontent: local communities accused the rewilders of challenging their rural way of life, and above all, of risking the disappearance of cultural agro-pastoral landscapes. How this rewilding initiative sparked a controversy? What are the terms of the conflict? Environmental History methods and tools are mobilized on this specific context to understand the different narratives built by the stakeholders about this mountainous area through the reconstitution of the different states of the area, i.e. historically situated assemblages between humans and non-humans which complicate the divisions of the present.

The case study shows that the Vercors Massif is defined by a particular identity made of competitions in the exploitation of the space by different actors over time and that the rewilding initiative is experienced by local communities as a symbolic and physical dispossession.

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Paper 3:

Leore Joanne Green, University of Cambridge, United Kingdom

The People's Forest and the Entomologists' Fen: Emotions and Tensions in Entomologists' Conservation Efforts in England, 1860s-1920s

This paper looks at the role English entomologists played in the conservation of two very different habitats, and the perceptions and emotions behind their conservation efforts.

First, Epping Forest, fondly known as «the People's Forest». Perceived as common land it was nevertheless gradually enclosed by private landlords for development. Situated close to East London the forest was important as a place of rest and recreation, and in the 1860s the enclosures met with public outcry and a parliamentary and legal campaign started which ended with legislature in 1882. Working-class entomologists, many of whom resided in East London, played an active part in the campaigning. They were trying to save one of the decreasing numbers of collecting places they had at their disposal.

Second, Wicken Fen, a remnant of a vast area which had mostly been drained by mid-nineteenth century. The fens were incredibly biodiverse, especially in endemic butterflies. As entomologists became gradually aware throughout the nineteenth century that many English butterfly species were becoming extinct, and following rumours that Wicken Fen was to be drained, a group of entomologists purchased a considerable portion of the land by 1897. Later bequeathed to the National Trust it was that organisation's first nature reserve.

Through these conservation efforts I will explore the emotional connections of practitioners of science to the environment they collect in, and look at various tensions which arose, such as – class, questions of who has true expertise of the area, and quarrels over land use and access.

0305-253 on Tuesday, 22.08.2023, 16:30-18:00

Unitobler – F 013

Ecologies, economies and evasion in the landscapes of the Global (H)

Organiser:

Amanda Power, University of Oxford, United Kingdom

Chair:

Amanda Power, University of Oxford, United Kingdom

Abstract:

Since the 1970s, mafias have taken root in the Alps, particularly in certain Italian regions such as Piedmont and Aosta Valley. This presence has been increasing between the 1980s and 1990s when the first car bomb attack on a magistrate in Italy is recorded in Aosta. After those years, mafias established themselves in many other regions in the Alpine area

The research questions posed from a perspective of analysing the Alpine natural environment in connection with criminal presences are: What are the migration trajectories of mafia phenomena from historical places of residence to the Alpine area (in an extended sense)? What kinds of activities were conducted by the mafias? How much did mafias and political corruption affect the Alpine natural environment and traditional agricultural activities?

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Paper 1:

Ruth Mostern, University of Pittsburgh, USA (V)

Forts, Fields and Forests: The Political Ecology of Erosion on the Medieval Loess Plateau

Until the sixteenth century, the Loess Plateau was sparsely populated. A semi-arid region of highly erodible soil in eastern Asia, it lay at the unstable extremity of the East Asian Summer Monsoon, and as a result, it marked a shifting borderland between pastoral and agrarian modes of subsistence. Its residents were mobile and ethnically diverse. There were times that the region was firmly under the control of a single regime, and other times when it was contended between multiple regimes. Ambitious regimes that struggled for territorial authority in the Loess Plateau established settler colonies and fortifications and they intensified farming and pasturage there. The period from the mid-eighth century to the mid-twelfth century was particularly extreme, and by the end of the period, commercial forestry was significant as well. On the Loess Plateau itself, these activities caused significant erosion. Erosion on the Loess Plateau shatterzone was ultimately also the cause of flood disasters far downstream in the Yellow River alluvial plain. This topic in Zomia studies puts political ecology and the environmental consequences of war and commercial revolution at the center of an analytical framework for understanding the dynamics of change in a sparsely populated and climatically fickle region.

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Paper 2:

Michael Leadbetter, University of Oxford, United Kingdom

Wayan Jarrah Sastrawan, University of Sydney and the École française d'Extrême-Orient, France

Ecologies of Creative Transformation: The Deep Past of Southeast Asia's Highlands

The highlands of Southeast Asia are routinely presented in mainstream accounts as marginal and peripheral to lowland societies. They are considered by scholars as ungoverned frontiers that eschew state organisations and lowland cultural practices. The region's deep past, however, presents a very different image of the highlands. For over 2000 years, highlands have been connected to and have interacted with the wider world, including lowland states and overseas networks. They radically remade and experimented with their landscapes, settlements, and societies, through especially complex relationships with water, soil, and plants. Rather than being 'a world apart' from the civilised lowlands, highlands served as birthplaces and testing grounds for alternative forms of statecraft, urban settlement, irrigation, monumental landscape engineering, and resistance to colonial invasion. We demonstrate the transformative creativity of Southeast Asia's highlands by analysing a wide range of archaeological and historical evidence, including inscriptions, archives, settlement patterns, monumental architecture, and ethnographic data. Drawing on the latest discoveries and theoretical advances, we reveal the profound creativity and transformative power of highland communities over millennia. We thereby seek to contextualise the more recent developments in Southeast Asia's highland regions (capitalist intrusion and extraction, colonial disruption, the imposition of nation-state borders, and environmental degradation) within much longer historical processes. This shift of perspective may offer new insight and solutions into the complex challenges that highland Southeast Asia faces today, and nuance approaches to highland landscapes as places of alternative transformation.

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Paper 3:

Paehwan Seol, Chonnam National University, South Korea

Bandits in mountains and plains: the limits of Mongol imperial power

Bandits and their strategies of survival offer an interesting lens through which to examine the nature of imperial power and administrative systems under Mongol rule during the thirteenth and fourteenth centuries. Thieves were categorized in different ways according to their activities, which included brigandage, piracy, arson, and tomb theft. They were co-existent with other aspects of the Mongol empire, crossing into and beyond its political and legal boundaries. They existed in cities, including capitals, while

'frontiers', forests and seas provided advantageous places for bandits to hide and gather. Thieves were subject to prohibition and punishment. But it was not easy to arrest and remove them. Why did the Mongol imperial government often fail to arrest thieves? Could outlaws be readily distinguished from Mongol pastoral nomads in building their relationships with the ecosystems they inhabited? How did thieves transform the government policy and imperial socioeconomic situation? This paper considers the records generated by officials, who were often wary of arresting thieves. Challenges included recurring vacancies in official positions, the age and health of incumbents, their fear, neglect of duties, all magnified by the geographic and topographic conditions of mountains and waters. Some officials made peace with bandits, released them and colluded with them. Some government officials and local people concealed or distracted from their own crimes by blaming thieves or bandits. This may reveal the daily competition and negotiation between thieves and the Mongol government, as it negotiated power in the surrounding mountains and plains.

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Paper 4:

Julia McClure, University of Glasgow, United Kingdom

Indigenous agroecology of Mesoamerica and the decolonization of global political economy

Prior to the global expansion of colonial capitalism from the sixteenth century the world was home to diverse types of societies. These societies were underpinned by different political economies that managed resources according to particular socio-political goals and cultural contexts. For example, before European invasion, the Americas were home to a range of nomadic, semi-nomadic, and settled societies, from the nomadic «Chichimeca» of the arid plains of northern Mexico, the settled agricultural and urban societies of the Mexica, Zapotecs, Mixtecs and Zapotecs of Central and Southern Mexico and the settled and semi-nomadic groups of the tropical forest zones of the Maya region of Southern Mesoamerica. Many of these Indigenous societies had agroecological practices that facilitated sustainable subsistence and rich cultural lives, including provision of densely populated urban complexes (Nigh and Ford, 2015). While early colonists noted the wealth of many Indigenous societies, Indigenous people came to be constructed as poor, economically and ideologically. European scholars developed theories of political economy that spatialised poverty and wealth according to a cultural cartography informed by the principles of colonial capitalism. Arid regions, tropical forests, and mountains, that could not efficiently be brought into the capitalist system of production to produce surplus for extraction, were classed as poor while areas where production could be maximised were classed as rich. The consequences of this political economy are increasingly apparent. This paper explores how the histories of Indigenous agroecologies in Mesoamerica can assist the project of the decolonisation of our global political economy in crisis.

0306-C06 on Tuesday, 22.08.2023, 16:30-18:00

Unitobler – F 021

The production and distribution of electricity

Organiser:

ESEH Programme Committee

Chair:

Marianna Dudley, University of Bristol, United Kingdom

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Paper 1:

Eliška Švarná, Charles University, Czech Republic

Hydroelectric Power Plant Dlouhé stráně (1978–1996): From «A Relic of Socialist Megalomania» to «The Greatest Wonder of the Czech Republic»

In 1978, the construction of the Dlouhé stráně pumped hydroelectric energy storage began in Czechoslovakia. As the most suitable location, the mountain landscape of the Jeseníky Landscape Park (Silesia) was chosen – an artificial water reservoir with a power plant was to be built at the summit of the Dlouhé stráně mountain. The construction was suspended several times due to lacking funds. It was revived after the fall of communism (1989) and finalized in the mid-1990s. Since then, Dlouhé stráně has maintained its popularity as a tourist destination and an exceptional technical work. In 2005, the building became the winner of the "Greatest Wonder of the Czech Republic" poll.

First, using the example of Dlouhé stráně, the paper offers an alternative to the stereotypical interpretation of state socialism as a regime seemingly ignoring ecological issues, and proves that environmental issues have been articulated since the 1970s in socialist Czechoslovakia. Second, it relativizes the idea of a certain specificity of the «socialist approach» to nature. It emphasizes that the construction of Dlouhé stráně spanned two state regimes, and it was the period of renewed democracy and capitalism that enabled the successful completion of the «socialist» construction. Third, it analyses public discussions about the technical work in a protected mountain landscape, which culminated among the Czech public at the turn of the millennium, and which can be understood as a reflection of changing social values and its relationship to nature.

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Paper 2:

Mercedes Galindez, University of Cambridge, United Kingdom

Environmental protection narratives in the banking sector: the role of wind power, 1990 – 2019

From the first measurements of the Keeling Curve in the late 1950s to the Paris Agreement, climate change followed an arduous journey to assert itself as the most threatening environmental issue. As its political importance grew so did the business opportunities to find a solution to mitigate the raise in global temperatures, including utility scale wind power. The European banking sector found in this technology a concrete way to demonstrate their commitment to environmental protection and climate change mitigation whilst responding to their customers demand for green commercial opportunities. This paper focuses on the role that wind power had in European bank's environmental protection narratives.

From 1990 to 2019 several commercial banks engaged in the deployment of wind power across Europe. This paper analyses the annual and responsible business reports of BBVA and Banco Sabadell (Spain), Barclays (United Kingdom), Commerzbank (Germany), and ABN AMRO (Netherlands) to unveil how investment in wind power was used by these banks to turn their operations, including energy supply to their headquarters, investment portfolios, mostly project finance, and banking products, such as savings accounts, into environmentally friendly endeavours. This was a historical process in which the treatment of wind power by banks mirrored the development of climate change certainty and awareness across social, political, and business spectrums. What started as a risky commercial opportunity rapidly was spun into the star of banks' environmental protection narratives.

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Paper 3:

Nurcin Ileri, Forum Transregionale Studien, Germany

Technology, Labor, and the Environment: Building Istanbul's Electrical Grid from Empire to Nation-State

Towards the end of the nineteenth century, Istanbul, the Ottoman Empire's capital and commercial port city with a heterogeneous population of around 950.000 piqued the interest of international corporations as a lucrative investment opportunity. Even though some of the proposals were carefully examined in this period, the city would have to wait until the 1910s for the foundation of an urban-scale power plant and the development of a city electrical grid for public and private use. My paper focuses on the earlier stages of the Istanbul's power plant construction and electricity grid extension and elaborates on how human and nonhuman actors have shaped modern urban settings. Diverse actors, including state authorities, multinational entrepreneurs, technical experts, workers, and consumers, were mediating the effect electricity and its infrastructure had on the city's everyday life. However, the city's physical features, the power plant's location, the (in)availability of natural resources like coal or water, the acquisition of mineral sources like copper and aluminium, as well as technological artifacts all had a significant impact on the plant's operation and the expansion of the grid. The Ottoman ruling elite's or company management's plans for the city's electricity landscape were thwarted not only by political upheavals (Balkan Wars 1912–1913; First World War 1914–1918; Armistice Period 1919–1923); but also by coal shortages, hilly terrain, weak soil, a devastating flood, and other material factors. My paper aims to open up conversations about the interconnected histories of technology, the environment, international capital, and labour.

0307-363 on Tuesday, 22.08.2023, 16:30-18:00

Unitobler – F 022

Thinking Russia's history environmentally

Organiser:

Julia Lajus, Max Planck Institute for the History of Science, Berlin, Germany & Columbia University, New York, USA

Chair:

David Moon, University College London and University of York, United Kingdom

Presenters of the panel:

Catherine Evtuhov, Columbia University New York, USA

Julia Lajus, Max Planck Institute for the History of Science, Berlin, Germany & Columbia University, New York, USA

Andrei Vinogradov, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

Anna Olenenko, Khortytsia National Academy, Ukraine

Anna Mazanik, Ludwig Maximilian University, Munich, Germany

Abstract:

The participants in our roundtable are editors and authors of the forthcoming book, *Thinking Russia's History Environmentally*, in production at Berghahn and scheduled for publication in 2023. In Zagreb in 2017, we presented our book as a project; we would now like to share the completed volume with ESEH members. Historians of Russia were relative latecomers to the field of environmental history. Yet, in the past fifteen years or so, the exploration of Russian environmental history has burgeoned. Among these are a particular focus on natural resources, an attention to the environment as a factor in historical processes such as industrialization, and more recently special attention to human-animal interactions. An unusual feature of our collective study is its broad chronological range – from the seventeenth century to the present day. The book is the product of intensive international collaboration, research and travel. In a world where such opportunities have (we hope temporarily) faded into the past, we hope that the book may attest to the benefits of such cooperative adventures. A few of the questions our chapters ask:

What was Russia's role in early industrialization on the eve of the emergence of the fossil fuel economy? What role did pollution play, and what were responses, in late imperial Kazan? How did camels become a factor in the agriculture of European Russia? What was the place of animals in the creation of a public health system in Imperial Russia? How does taking environmental factors into account contribute to our framing of empire?

0308-414 on Tuesday, 22.08.2023, 16:30-18:00

Unitobler – F 023

Basel's Many Climates. Mapping and Historicizing the Swiss Climate Movement from Within

Organiser:

Lisa Cronjäger, University of Basel, Switzerland

Mirjam Hähnle, German Historical Institute London, United Kingdom

Chair:

Lisa Cronjäger, University of Basel, Switzerland

Mirjam Hähnle, German Historical Institute London, United Kingdom

Presenters of the Different World Session: The Historian in the Mirror:

Barbara Ellenberger, KlimaKontor Basel, Switzerland

Frida Kohlmann, Collective Climate Justice, Basel, Switzerland

Michal Oskedra, Climatestrike Basel, Switzerland

Abstract:

What is the responsibility of historians in times of climate crisis? Who should be heard in this history, who should write it?

The organizers of the roundtable assume that a historical look at the genesis of the socio-ecological crises should give voice to those who have been calling for a new engagement with these crises for some years now. To this end, we want to bring diverse climate movements of a Swiss city into conversation with historians: How should the past, present and future of the movement, thus the future environmental history of the last five years, be written?

For the ESEH roundtable, we want to invite representatives of four different fractions of the climate movement in the city of Basel: the cantonal popular initiative for Climate Justice (Basel 2030), Climatestrike (Swiss «Fridays for Future»), the Collective Climate Justice, and KlimaKontor Basel. Each group has different historical strategies in fighting against the climate crisis –parliamentary work, forming a movement of young people, civil disobedience, or artistic debates.

In the first part of the roundtable, the representatives talk about what they understand by the «Swiss climate movement» and how they situate themselves and their group in it (mapping). Furthermore, we invite participants to take stock of their activities in recent years – in other words, to contribute to a process of self-historicization. Based on this, we then want to open the discussion to the audience and ask what historians can contribute to a «better world» in the confrontation with the climate crisis.

0309-228 on Tuesday, 22.08.2023, 16:30-18:00

Unitobler – F-105

Early-Career Environmental Historians for a Sustainable Academia (H)

Organiser:

Elizabeth Hameeteman, Environmental History Now, Germany

Chair:

Elizabeth Hameeteman, Environmental History Now, Germany

Samuel Grinsell, University College London, United Kingdom

Presenters of the roundtable:

Aspen Brown, University of Wyoming, USA

Bava Dharani, University of Sussex, United Kingdom

Marianne Dhenin, Leibniz Institute of European History, Germany (V)

Deniz Gündoğan İbrışım, Sabancı University, Turkey

Sebastian Lundsteen, University of Stavanger, Norway

Jayson Porter, Brown University, USA

Abstract:

What has history to do with the climate and biodiversity crisis? How should historical practice change in light of these crises? How can we walk the talk of sustainability on a daily basis in our working environments? How can we interpret the concept of sustainability within the academic sphere and widen its scope? How can we build more sustainable careers?

In short, how can we practice sustainable history?

For this hybrid session based on their ongoing blog series on «Sustainable Academia», the ESEH's Next Generation Action Team (NEXTGATE) and Historians for Future bring together graduate students and early career scholars who will reflect on the conditions of early-career environmental historians in Europe and beyond, introduce visions for the field, and suggest concrete action in order to build more inclusive and supportive academic environments.

0310-197 on Tuesday, 22.08.2023, 16:30-18:00

Unitobler – F-113

Organized Crime, mafias and political corruption as high-risk factors for alpine natural and agricultural environment (H)

Organiser:

Roberto Leggero, Università della Svizzera italiana USI, Switzerland

Chair:

Daniele Valisena, Université de Liège, Belgium

Abstract:

Since the 1970s, mafias have taken root in the Alps, particularly in certain Italian regions such as Piedmont and Aosta Valley. This presence has been increasing between the 1980s and 1990s when the first car bomb attack on a magistrate in Italy is recorded in Aosta. After those years, mafias established themselves in many other regions in the Alpine area

The research questions posed from a perspective of analysing the Alpine natural environment in connection with criminal presences are: What are the migration trajectories of mafia phenomena from historical places of residence to the Alpine area (in an extended sense)? What kinds of activities were conducted by the mafias? How much did mafias and political corruption affect the Alpine natural environment and traditional agricultural activities?

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Paper 1:

Annamaria Astrologo, Università della Svizzera italiana USI, Switzerland

The migration of mafias from traditional territories. Reasons and reflections on mafia expansion

Since the 1970s, mafias have taken root in the Alps, particularly in certain Italian regions such as Piedmont and Aosta Valley. This presence has been increasing between the 1980s and 1990s when the first car bomb attack on a magistrate in Italy is recorded in Aosta. After those years, mafias established themselves in many other regions in the Alpine area

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Paper 2:

Thomas Aureliani, Università degli Studi di Milano, Italy (V)

Extractivism, mafias, and communities: the 'ndrangheta and the Trentino porphyry quarries

Since the 1970s, mafias have taken root in the Alps, particularly in certain Italian regions such as Piedmont and Aosta Valley. This presence has been increasing between the 1980s and 1990s when the first car bomb attack on a magistrate in Italy is recorded in Aosta. After those years, mafias established themselves in many other regions in the Alpine area

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Paper 3:

Roberto Leggero, Università della Svizzera italiana USI, Switzerland

Political Corruption and Organized Crime in the Aosta Valley. Building Speculation and the Environment in the Pila basin (late 1970s, 20th cent.)

Since the 1970s, mafias have taken root in the Alps, particularly in certain Italian regions such as Piedmont and Aosta Valley. This presence has been increasing between the 1980s and 1990s when the first car bomb attack on a magistrate in Italy is recorded in Aosta. After those years, mafias established themselves in many other regions in the Alpine area

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historical places of residence to the Alpine area (in an extended sense)? What kinds of activities were conducted by the mafias? How much did mafias and political corruption affect the Alpine natural environment and traditional agricultural activities?

0311-489 on Tuesday, 22.08.2023, 16:30-18:00

Unitobler – F-121

Climate and Society in Europe. The last thousand years

Different World Session: Book Lounge

Organiser:

Christian Pfister, University Bern, Switzerland

Abstract:

For the first time, this book allows an overview of the seasonal development of weather and climate over the last 1000 years and its significance for population growth. This is mainly based on data from archives of society, such as reports in chronicles, diaries and administrative files. Until around 1900, consistently cold winters were contrasted by mostly warm summers. Population growth was sustained by periods of warm summers, namely in the 13th and 16th centuries, while plague epidemics in the 14th century and late sixteenth century climatic fluctuations caused setbacks. From the late 17th century, people freed themselves from the plague, and from the late 18th century from dependence on weather and climate. This was achieved by new crops (potatoes, corn) and improved forms of cultivation before the onset of the transportation revolution. After the cold maximum in the early 19th century, a gradual warming began under the influence of coal-based industrialization. From the late 1950s onward, the glut of Middle Eastern cheap oil contributed to the unique economic growth spurt of the 1960s, but at the price of rapid global warming from 1989. The discussion of the enhanced greenhouse effect reflects the change from the positive assessment of CO₂ in the 1890s to the moderately critical assessment in the 1950s to the first startling warnings around 1980. Finally, future risks are highlighted using extreme examples from the last thousand years.

0312-394 on Tuesday, 22.08.2023, 16:30-18:00

Unitobler – F-122

From Ridges to Riches – Subsea Mountains and Plains as Places of Prospecting. Giving the (Sea) Floor to Environmental History

Organiser:

Sabine Höhler, KTH Royal Institute of Technology Stockholm, Sweden

Chair:

Sabine Höhler, KTH Royal Institute of Technology Stockholm, Sweden

Presenters of the Roundtable:

Tirza Meyer, KTH Royal Institute of Technology Stockholm, Sweden & University of Oslo, Oslo School of Environmental Humanities (OSEH)

Susanna Lidström, KTH Royal Institute of Technology Stockholm, Sweden & University of Oslo, Norway

Ellen Marie Krefting, University of Oslo, Norway

Sam Robinson, University of Southampton, United Kingdom
Ole Sparenberg, KIT Karlsruhe Institute of Technology, Germany

Abstract:

Humans have overcome not only mountain ranges but also the oceans which increasingly served as a route for the traffic and trade between the continents. Yet, for centuries, apart from fishing, the oceans remained a flatland until a subsea world of mountains and plains emerged in the nineteenth century when the first deep-sea expeditions mapped hitherto unknown ocean ridges, trenches, and abyssal plains. This submarine landscape became of increasing material interest in the twentieth century, suggesting access to a wealth of resources way beyond fish and nutrients, oil and ore. Maps of the deep-sea terrain gave way to technologies of industrial-scale resource extraction and waste deposition. The oceans appeared limitless in their capacity to provide food and resources as well as to absorb pollutants and greenhouse gas emissions.

This roundtable explores the historical versatility of the subsea landscape of mountains and plains through a broadly conceived 'prospecting' perspective: technologies of deep-sea charting, sounding, dredging, trawling, mining, engineering, DNA-mapping and dumping: Which imaginaries and materialities emerged from the deep, and which socio-ecological and economic infrastructures supported the prospective and extractive paradigms? By illuminating different subsea 'mountainous societies', the roundtable programmatically envisions the deep sea as a place that is just as susceptible to natural and historical (anthropogenic) change as is the land. The deep sea matters as a theme of environmental history through imaginaries of abundance; infrastructures of appropriation; human and non-human living spaces; questions of sovereignty and legal regulation; and the mediation, politics and governance of ocean wealth.

0313 on Tuesday, 22.08.2023, 16:30-18:00

Unitobler – F-123

ISCAR roundtable «Past, present and future of mountain research networks»

Organiser:

ISCAR – International Scientific Committee on Research in the Alps

Chair:

Stefanie Gubler, Swiss Academy of Sciences (SCNAT) Bern, Switzerland

Presenters of the Roundtable:

Manuela Brunner, ETH Zurich & WSL Birmensdorf, Switzerland

Cristina Del Biaggio, Laboratoire Pacte, Université Grenoble Alpes, France

Roland Psenner, EURAC Research Bolzano, Italy

Thomas Scheurer, long-time ISCAR Secretary, Switzerland

Abstract:

In 1999, the convention partners from Austria, Germany, France, Italy, Slovenia and Switzerland signed the ISCAR Convention with the main objectives of promoting alpine-wide and interdisciplinary cooperation in the field of Alpine research; transferring research results into practice and to the public and, above all, promoting science-policy dialogue. In 2000, the Alpine Conference recognized ISCAR as an official observer of the Alpine Convention. One major objective of ISCAR is the organization of the ForumAlpinum. ForumAlpinum is a scientific conference promoting international research cooperation on topics of relevance across the entire Alpine arc. It serves as an interface between the scientific community, the general public and policy makers, and provides an opportunity for dialogue between stakeholders. As an observer of the Alpine Convention, ISCAR is also co-organizer of the AlpWeek, an international event on mountain protection and sustainable development.

This roundtable discussion panel will ask for success factors in the establishment of a science-policy dialogue, with a focus on the development of Alpine regions. What do we need to establish a successful science-policy dialogue, and how can science foster sustainable development in remote areas? Further, we address the importance, the potentials and the challenges researchers face to organise themselves in research networks such as ISCAR, to be visible and relevant to policy makers, to the media, and to stakeholders of various kinds. How can science-policy networks learn from their past activities to be fit for the future? How can they ensure the sustainability of their work, especially in the face of changes in the networks, e.g., due to a generational shift?

0314 on Tuesday, 22.08.2023, 18:00-19:00

Unitobler – F-122

E&H meeting

0315 on Tuesday, 22.08.2023, 18:00-19:00

UniS – A 015

ICEHO meeting

0316 on Tuesday, 22.08.2023, 18:00-19:00

UniS – A 017

Outgoing CRR

Tuesday, 22.08.2023, 19:30-22:30

Rathaushalle

Opening Reception

Wednesday, 23 August 2023

Wednesday, 23.08.2023, 7:45-8:45

Café Bar Sattler, Mittelstrasse 15a

Breakfast of the RUCHE, French network of environmental historians

Organiser:

Charles-François Mathis, Université Paris 1 Panthéon-Sorbonne, France

0400-C21 on Wednesday, 23.08.2023, 9:00-10:30

UniS – S 003

Uncertain environmental knowledges: religion, heresy, imagination (H)

Organiser:

ESEH Programme Committee

Chair:

Jon Mathieu, University of Lucerne, Switzerland

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Paper 1:

Martin Gabriel, University of Klagenfurt, Austria (V)

Of Lightning Gods and Silver – The Andes in the Spanish Colonial Empire

During the era of Spanish colonial rule, the Andes were among the most important regions of the empire. Silver mining was the backbone of Southern American colonial economy, but in the Andes region, also everyday goods like grain were produced, and on the other hand, especially silver mining was closely related to other economies like the raising of cattle in the plains of Argentina - tens of thousands of animals were driven to the mining centres every year.

While European observers often commented on indigenous «superstitions» regarding mountains (that were seen as home of deities or demons), European perspectives were also strongly influenced by issues like the idea that working underground would lead to moral decay. Thus, there was no clear separation between a «modern»/«rational» European sphere and a «traditional»/«irrational» Amerindian sphere when it came to the characteristics of the Andean mountains. Mountains were (and are) the keystone of the Andes' cultural understanding. The worship of mountains as deities or of deities on mountaintops as well as in mountain caves might give the impression of «pre-modernity», but was closely related to specifics we now know to be factual - such as the importance of mountains for rain and, in further steps, for fertility, agriculture or demographic stability. From this point of view, it seems important to combine scholarly approaches of economic, environmental, cultural, and religious history (as well ethnology and historical anthropology) to better understand the central role of mountainous areas in colonial South America.

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Paper 2:

Michael W Evans, University of Melbourne, Australia (V)

Telluric Disturbances: Imagining an environment of peril in colonial Australia

Despite occupying the oldest, flattest and driest inhabited continent, nineteenth century European settler-colonists of Australia feared disastrous earthquakes, volcanic eruptions and the possibility that the land mass would subside into its surrounding oceans. They lived in an environment of peril. European historians have recently examined how representations of nature-induced disasters become cultural markers of national identity, a tool for imagining a nation. There has also been considerable work done on how media representations of disasters shape their cultural relevance. But little has been done on the reverse processes by which representations of the environment shape expectations of disasters. Building on this work, in this paper I examine how European settler-colonial encounters with the flat plains and low volcanic mountains of south-eastern Australia generated representations of an environment of peril. Through published chronologies, popular science lectures, and newspaper reports I examine how this generated fear of disasters, how it helped settler-colonists imagine a nation, how it also served to erase by absence the continuing existence of Indigenous Australians, and how it eventually reversed its formulation to position Australia as immune to disaster, as the youngest nation on the oldest continent.

This project, by exploring how representations of the Australian environment as a place of uncertainty in the nineteenth century, can contribute to a better understanding of how representations of disaster and environment not only contribute to the imagining of a nation, but how they are themselves also imagined within the webs of meaning that encompass that imagined nation.

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Paper 3:

Inês Amorim, University of Porto, Portugal

From the valley to the mountain – religious experiences, climate, and health

Mountains and valleys are two embraced territorial realities. The mountain protects the valley, and from its slopes, rivers and streams flow, making the valleys fertile for agriculture. This description is the «idea» of an «Eden» (Paradise), the image of the benefits of the mountain in a farming space. In a Portuguese landscape, traditionally identified with the Atlantic/Mediterranean position and with an average altitude of 269 meters, the risk of floods comes from the sea, not from the mountains.

This proposal aims to present a case study about a Portuguese mountain - «Serra do Caramulo», with 1075 meters of altitude, in the centre of Portugal. We intend to reread the local topography, considering social and ecological interactions, and disclosing mountains as objects for reflection. We intend to question the use of the mountain in a chain of causes and effects, articulating sensible and scientific knowledge. By analysing religious manifestations since the 17th century - the rogations or Feasts of the Crosses (organized by the peasants from different places of the valley to the top of the mountain, praying for the «good weather»), it is possible to evaluate times of droughts in the long term. On the other hand, it is also possible to analyse how this mountain was highlighted in the maps for scientific and political reasons, both connected with the «good air», that is, environmental benefits to health, recognized at the beginning of the 20th century, with the construction of the largest sanatorium in the Iberian Peninsula.

0401-490 on Wednesday, 23.08.2023, 9:00-10:30

UniS – A-022

Temporalities of Nature: Rethinking «Natural» History in the Anthropocene (H)

Organiser:

Nicky Marie Rehnberg, University of California, Santa Barbara, USA

Chair:

Alice Would, University of Bristol, United Kingdom

Abstract:

Climate and environment shape humans' conceptions and experiences of time. In the nineteenth century, the more natural seasonal rhythms of agricultural work clashed with the empty-homogeneous time of industrial labor. Today, the discovery of human induced climate change haunts how many conceive of the future. In contrast to homogenous temporal conceptions like the Anthropocene, this panel pluralizes the temporal relationships between humans and the natural world. It examines how records of the Nile flood in Egypt, California Redwood and Sequoia tree rings, and geo-palaeontology have shaped diverse human experiences and conceptions of time. A supposedly primordial form of flood-based agriculture in Egypt has long epitomized the human struggle with the environment. A year before the completion of the Aswan Dam, art and film explored the last Nile flood that entered Egypt as a moment of historical rupture. Redwoods and Sequoias have been key sources to the science of dendrochronology. In the early twentieth century, this science shaped imaginaries of a noble past untouched by industrial modernism and non-white immigration in the U.S. and Europe and continue to do so in natural history museums and parks. Geo-paleontological data records times of crisis in the past and present through which we can better understand the Anthropocene. These natural records reveal humanity's loss of equilibrium and transformation to disaster taxon, who face existential anxieties and ethical dichotomies. This panel's papers reveal the interconnections between temporalities of nature, the natural sciences, colonialism, and indigenous displacement.

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Paper 1:

Anthony Greco, University of California, Santa Barbara, USA (V)

History and Hydrology: The Nile Flood

For millennia, the annual flooding of the Nile and the agriculture it irrigated has been an incubator for theorizing the productive relationship humans form with the natural world. Egypt's unique geography and hydrology enabled the formation of enduring institutions of hydraulic measurement which produced the longest man-made natural histories on earth. Beginning in the eighteenth century, interest in these natural histories grew. Newly trained Ottoman engineers looked to these measurements in their efforts to expand the river's productive capacities. European natural philosophers saw studying the Nile flood as a way to launch their careers within their respective scientific societies. This paper explores these diverse projects and reveals how natural histories of the Nile flood produced diverse temporal imaginaries directed at the past and future. The Nile was the site of contest between biblical versus secular chronologies, rival engineering visions over the future of Egypt's water supplies, and high modernist development versus anthropological nostalgia for a supposedly vanishing human relation to nature.

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Paper 2:

Nicky Marie Rehnberg, University of California, Santa Barbara, USA

Time and Trees: Redwood and Sequoia Rings

The fossil record shows that Coast Redwoods (*Sequoia sempervirens*) and Giant Sequoias (*Sequoiadendron gigantea*) have existed since the Jurassic period, covering the northwestern quadrant of what is now the North American continent. Both species can live for over 2,500 years and can grow over 100 meters tall, making them millennia-spanning archives through their highly legible tree rings—increasingly valuable in scientific research. The practice of using tree rings is over two thousand years old, but dendrochronology, the dating and study of tree rings, took root in the natural sciences in the eighteenth century. Since then, tree rings have been used to reconstruct historical regional climates, study insect infestations, and predict natural disasters. This long view into history is incredibly useful and dangerous, depending on the data's interpreter. In the nineteenth and early twentieth centuries, dendrochronologists such as Ellsworth Huntington used Redwood and Sequoia rings to support moralized environmental determinism and ultimately racialized views of nature. But crosscuts of both species are also readily found in natural history

museums globally, where the institutions interpret time through the rings, noting culturally significant events on the tree. This paper considers how Redwood and Sequoia rings have been used and abused to illustrate changes over time, creating natural historical imaginaries for scientific practitioners and Global Northern publics, impacting the understanding of the past, present, and future.

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Paper 3:

Massimo Bernardi, MUSE – Science Museum, Trento

A Deep Perspective on the Anthropocene

A deep time perspective can reform the way we conceive the Anthropocene. Geo-palaeontological data record times of crisis, both in the past and in the present. The concept of mass extinction is a useful conceptualization of the Anthropocene with three broad stakes for human temporality. Loss of equilibrium – The climatic equilibrium of the Holocene shaped a circular perception of time which followed the course of seasons. The disruption of the Holocene stability forces us to a non-circular conception of time in which we struggle to find reassuring references. Disaster taxon – comparing the durations of past mass extinctions with the Anthropocene crisis, we observe that our existence as specialized super predator is coming to an end turning ourselves to a «disaster taxon», i.e. a species adapted to live in depleted ecosystems. This imposes a new perception of human place and role in the history of life. Suspension – the human mind needs certain destination horizons. Will planetary biodiversity collapse or recover? Will glaciers disappear or will they persist? The certain horizon, the definitive answer to these questions, does not however depend on humanity's time but on the planet's, forcing us into a state of suspension that we are unable to metabolize. Dichotomies – Anthropocene-era conflicts between different values and ethical principles with regard to the (ontological) status of our planet are shifting the classical «humanity-against-nature» dichotomy to a new «humanities-against-(other)humanities» narrative. Does the Anthropocene constitute the ultimate impossibility of sustaining a non-anthropocentric perspective on the history of the planet?

0402-451 on Wednesday, 23.08.2023, 9:00-10:30

UniS – A-122

Art and the Anthropocene – the beauty and difficulty of transdisciplinary collaborations (H)

Organiser:

Linda Kaljundi, Tallinn University & Estonian Academy of Arts, Estonia

Chair:

Linda Kaljundi, Tallinn University & Estonian Academy of Arts, Estonia

Presenters of the Roundtable:

Linda Kaljundi, Tallinn University & Estonian Academy of Arts, Estonia

Kristina Norman, Independent Artistic Researcher, Estonia (V)

Ulrike Plath, Tallinn University, Estonia

Abstract:

The last decade has witnessed an almost global boom of transdisciplinary exhibitions on and around the Anthropocene, which are more often than not based on collaborations between artists, humanist researchers, life and environmental scientists, activists, and often take place at equally diverse locations ranging from museums of art, natural history, technology, etc. to different post-landscapes, such as abandoned industrial sites or wastelands. The institutional scope of such initiatives can also range from

major exhibition and research centres of the global north to different grassroots or activist projects. No matter how different, such projects share an increasingly topical challenge - how to not produce just another Anthropocene exhibition? This roundtable invites its participants and audience alike to think along the following questions: How to make creative collaborations between researchers and artists really work? What are the productive ways of finding common research questions and materials to work with? How to build good and sustainable co-working practices? How to build up a functioning shared vocabulary that would go beyond name- and keyword dropping? Can one combine artistic and academic research? We invite everyone in the room to share their good as well as bad experiences, and to discuss what are the best strategies that would enable us to think critically about the boom of Anthropocene shows and still maintain enthusiasm towards different projects leading? The panel includes the screening of films by Kristina Norman from the trilogy *Orchidelirium* (2023).

0403-C04 on Wednesday, 23.08.2023, 9:00-10:30

UniS – A-126

Mountain tourism in Czechia and Poland

Organiser:

ESEH Programme Committee

Chair:

Martin Schmid, BOKU University of Natural Resources and Life Sciences Vienna, Austria

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Paper 1:

Piotr Kubkowski, University of Warsaw, Poland

Tatra Mountains vs. Polish Jura. Knowledge & affects at the turn of the 19th and 20th centuries

At the end of the 19th century, the Tatra Mountains became undoubtedly the most important landscape of Poland divided by the partitioning empires. In the 1870s the elites of Warsaw, Lviv and Kraków established the Tatra Society (Towarzystwo Tatrzańskie) – one of the largest and most influential cultural associations in this part of Europe, a club that dealt with the promotion of individual mountain feats and organized tourism, the protection of endangered species of fauna and flora, and above all, the popularization of natural and regional knowledge. They promoted the views of the "Polish" Tatra Mountains and contributed to the rapid development of Zakopane.

At the very beginning of the 20th century, the Polish Jura – an upland full of medieval castles – became the symbolic birthplace of another association: Polish Country Lore Society (Polskie Towarzystwo Krajoznawcze). Also in this case, the experience of the highland landscape combined the myth (of Poland's ancient glory) with the imperative of popularizing historical, ethnographic, and natural knowledge about the country. The members of both societies were both travelers and scientists: historians, anthropologists and naturalists – very influential in Polish society.

In my paper I will analyze and interpret how mountain regions were «conquered» and assimilated into Polish imaginary in the late 19th and early 20th centuries. For this purpose, we will look at the activities of geologists, botanists, zoologists and proto-ecologists gathered in the aforementioned associations.

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Paper 2:

Tomas Burda, University of Hradec Králové, Czech Republic

Jiří Martínek, Historický ústav AV ČR, v. v. i., Praha, Czech Republic

From Bohemia towards the peaks of the Alps

Bohemia and Moravia are not countries that have their own high mountains, but mountain tourism has gained great popularity in them, and admiration for mountain massifs is common in society (Austria is still the most common winter destination for Czech tourists). This has been the case since at least the 19th century - after all, a number of important personalities who were connected with the mountains came from Czech lands, such as Friedrich Simony (born in Hrochův Týnec in eastern Bohemia), Johann Stüdl (born in Prague), Julius Payer (from Teplice) or Matthias Zdarsky (born in South Moravia).

Historically, however, the approach (and especially the regional direction) of the two nations that lived in the Czech lands differed considerably. While the Czech Germans were heading to the Alps, where a number of huts connected to branches of mountain societies in the Czech lands were established - Reichenberger Hütte, (Neue) Prager Hütte, Warnsdorfer Hütte or even Teplitzer Hütte -, alpinists and mountain admirers of the Czech language and nationality tended to the linguistically closer area of today's Slovenia, both to the Julian Alps and to the Kamnik-Savinja Alps, where the Češka koča (Czech cottage) still stands today. Our contribution will try to document the motivations of both national groups and the differences between them, as well as the influence of the initial phase of mountain tourism on lifestyle and environment, which laid the foundation for today's sustainable tourism.

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Paper 3:

Michal Durco, Slovak Academy of Sciences, Slovak Republic

Opposition against the tourism infrastructure in the High Tatras 1919-1989

The High Tatras have been the most visited tourist location in Slovakia for more than one hundred years. Ever since the 19th century, its crystal-clear lakes, lush forests and unpolluted air have been highlighted by travellers and hikers. As a result, the High Tatras became known as climatic spas and gradually began to develop tourism. However, building tourist infrastructure had a direct impact on the previously untouched natural environment. In the 20th century, numerous new cottages, hotels, guesthouses, railways, automobile-friendly roads, camp sites, cable cars, ski slopes, and sports grounds were built here. These were often world-class technological innovations, such as the cable car to the Lomnický Peak, or the Alweg monorail, a project which never materialised. With regards to infrastructure, the positive effects on the development of tourism in the region and its economic benefits are always stressed. But little is said about the opposition. At the same time, tourist infrastructure has always been subject to criticism, especially among tourists and conservationists. The development of tourist infrastructure was not a success story only. In this article, we therefore examine the High Tatras as a space where the conflict between nature, man and technology takes place. Realized and unrealized tourist infrastructure projects from the period of Czechoslovakia (1919 – 1989), including the period of the Slovak Republic (1939 – 1945) are essential for us. Our research question is who formed the opposition, what were their motivations and how the form of the opposition itself changed on a long-term scale.

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Paper 4:

Stanislav Holubec, Czech Academy of Sciences, Czech Republic

Incorporation Giant Mountains to Czechoslovakia and to Poland 1945-1950

Giant mountains, the biggest mountain range in Europe between Alps and Scandinavia was inhabited by German population up to the end of WWII. After May 1945 the locals were expelled, southern part of Mountains returned to Czechoslovakia and northern Part was given to Poland. The paper will discuss how authorities of the new states settled here and how they started to renew the mountains as most touristic

region of Bohemia and Silesia? It will also compare the experiences of modernity and environmental issues reflected by numerous visitors at that time: Poles admiring the level of modernization, but criticizing kitsch and commercialization in contrast to traditional Polish Tatra mountains (Carpathians). Czech visitors expressing the shock by the environmental devastation during the years of Nazi rule and expecting modernization of tourism. The paper will show how quickly the dispute between the environmentalists and supporters of mass tourism appeared but remained unresolved after 1948 due to the coming cold war and heavy industrialization (closing Polish mountain to individual tourists, opening the uranium mines, abandonment of ski resort projects and projects of National parks). Finally, the paper will examine the narratives of expelled Germans who had a chance to visit the lost homeland. As a result, three largely incompatible experiences and narratives on the same mountains existed after 1945 and only slowly approached during the next decades.

0404-C08 on Wednesday, 23.08.2023, 9:00-10:30

Unitobler – F 005

Managing nature (H)

Organiser:

ESEH Programme Committee

Chair:

Jakob Starlander, University of Bern, Switzerland

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Paper 1:

Kata Tóth, University of Vienna, Austria

Mountains in Common, Mountains in Conflict. Natural Resource Management in the Southern and Eastern Carpathians in the 15th-17th centuries

Most historical studies to date consider the Southern and Eastern Carpathians as a political, military and cultural frontier between the Kingdom of Hungary as well as the Principalities of Moldavia and Wallachia. However, Late Medieval and Early Modern charters, letters, trial records and village statutes regarded that the contemporaries perceived the mountains also as a natural environment that provided the lowland with pastures, woodland, game and fish. Even though several fine studies focused on the usage of these resources in the 18th-20th centuries, research on earlier periods is largely neglected. This study aims to reconstruct pre-modern natural resource management in the Southern and Eastern Carpathians. Applying the methods of the histoire croisée, the mountains are studied in a transnational context, while highlighting the entanglements between highland and lowland, as well as between humans and nature. The analysis of the sources demonstrates that village communities and monasteries gradually developed and codified economic and ecologic strategies concerning their properties in the mountains. The owners agreed a scheduling for the grazing season, limited forest clearances and punished people disrespecting their rules. Except for the increased literacy, the exponential growth of relevant documentation from the second half of the 16th century clearly reflects the rising number of competing actors in the mountains and thus the growing scarcity of natural resources, which prompted contemporaries not only to regulate the exploitation of the mountains, but also to reconsider their relationship with the environment.

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Paper 2:

Pedro Mota Tavares, Institute of Contemporary History & NOVA School of Social Sciences and Humanities, Portugal (V)

Use and management of natural resources: mountains and plains in Couto de Ervededo, Trás-os-Montes (1758-1853)

Our presentation analyses the historical use of natural resources in a region with mountains and nearby plains. We aim to understand how shared resources were managed in Couto de Ervededo, located in the region of Trás-os-Montes and near the border between Portugal and Spain. The area is attractive because it has enormous natural wealth. Here we can also study the environmental history of the mountain in its connection with the surrounding plains. This small scale allows us to focus the analysis on the policies adopted at the governmental level and their concrete reception and application locally.

The period chosen for this study is particularly eventful. It presents different political contexts: the Absolutist Monarchy in the second half of the 18th century, Liberalism in the first decades of the 19th century, and finally, the expansion of the municipality of Ervededo between 1833 and 1853. During this period, our main objective is to combine the analysis of political and legal actions with an environmental perspective.

From a methodological point of view, this study reviews historical descriptions of local common land and irrigation systems. Then it examines local documents related to these practices, which have an apparent environmental dimension. To better understand them from a historical perspective, the environmental context is further analyzed within the relation between these mountains and their surrounding plains.

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Paper 3:

Ragnhildur Hemmert Sigurdardottir, Independent Scholar, Iceland

300 Years of Ecosystem Management in the Highland Lake Mývatn Region of North-eastern Iceland

The Lake Mývatn region (Mývatnssveit) in the North-eastern highlands of Iceland has been populated continuously by farming communities since the arrival of Viking Age settlers in the late ninth century. Despite having Iceland's shortest growing season and having suffered multiple natural disturbances, such as periods of harsh climate, volcanic eruptions, and soil erosion, the community thrived in a way that it affected the creation of modern Iceland in the 19th century. Mývatn's residents have sustained themselves through the centuries by managing the natural resources of the lake itself and by managing its extensive wetlands for outfield hay. Until the late 1960's the outfield hay gathered within the wetlands was the single most important resource for Mývatn's farmers, creating a fertile ground for the invention of modern sheep breeding in Iceland, dated back to a single event in 1842. According to historical documents on the management of these wetlands from 1700 to present day indicate that erosion forces were a constant threat to the existence of these wetlands, the management of which needed to constantly be adapted and the conservation of which was considered the most difficult annual task by the farmers. These challenges are reflected in the community's traditional ecological knowledge told throughout the centuries by the myth of the troll woman Kráka, who cursed the farmers with this enormous task. The wealth created by sheep farming in the past is the today's population source of struggle with low income threatening both the region's cultural and natural heritage.

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Paper 4:

Julia Mariko Jacoby, University of Duisburg-Essen, Germany

Borders and Compromise: Mountain Disputes in Early Modern Japan

In early modern Japan, mountains were a border space where a multitude of different interests crossed, collided, and coexisted. In contrast to arable land in the plains, which was measured and allotted for tax reasons, mountains were left vague and shifted in uses. They not only acted as borders between villages or other entities, but also accommodated forest commons, mines, and sacred areas. As a consequence, a

multitude of actors – villagers, temples, local domains, and the Shogunate – had intertwining interests that needed to be negotiated. The demands posed on mountains changed with environmental transformations and production of knowledge, such as the large-scale clearing of new arable land in the 17th century and the spread of regenerative forestry in the 18th century. In this paper, so-called «mountain disputes» (sanron) in Japan during the Tokugawa period (1603-1868) are analysed to reveal the entanglements between resources, social structures, and legal practices. The dispute settlements show how the extraction of resources was regulated between the actors, how different types of resources were weighed against each other, what mechanisms were implemented to include or exclude certain actors from accessing resources, and finally, how borders were both drawn and blurred to mitigate resource conflicts.

0405-500 on Wednesday, 23.08.2023, 9:00-10:30

Unitobler – F 013

ESEH Communication Forum: Postcards and Online Presence

Organisers:

Roberta Biasillo, Utrecht University, The Netherlands

Gilberto Mazzoli, European University Institute, Florence, Italy

Jonatan Palmblad, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

Abstract:

The Society is looking for your creativity to boost its online presence and its internal and external communication! If you would like to combine environmental history, storytelling, community-building, and outreach, make sure not to miss this session. We also invite those who are interested in learning about outreach and creative communication in digital times. In this session, you will be able to write your individual or multi-authored «Postcard for Unstable Times» (more info:

www.instagram.com/eseh_postcards), produce materials for our website and social media with our webmaster, and propose and discuss ideas about the ESEH newsletter and notepads with our board members. The session is intended for ESEH members and members-to-be as an open forum for brainstorming about our internal and external communication. Everyone is welcome!

0406-208 on Wednesday, 23.08.2023, 9:00-10:30

Unitobler – F 021

Repurposing Altered Mountainscapes in the Japanese Archipelago

Organiser:

Fynn Holm, University of Tübingen, Germany

Chair:

Martin Dusinberre, University of Zurich, Switzerland

Abstract:

Over 70% of the Japanese Archipelago is mountainous, while the country is home to over 100 active volcanoes. For millennia, humans on the archipelago have lived in intimate connection with these landscapes and made use of their unique topographical and climatic features by exploiting their natural resources. This panel investigates how alterations in the landscapes have led to a reevaluation and repurposing of mountains over the early modern and modern periods. Some of these alterations are

anthropogenic in origin: transitions to new energy regimes, shifting patterns of resource use, economic or demographic intensification, or transformed cultural or religious attitudes. But other alterations are driven by geological forces or by climate change. This panel explores these themes through four case studies. Joanna Linzer explores how early modern iron miners in Chūgoku used hydraulic power to shift dirt, flatten slopes and reroute waterways. Fynn Holm shows how Buddhist monks in Kamikōchi built hiking paths for pilgrims praying for mountain gods to alleviate the effects of the Little Ice Age. Jonas Rüegg traces the decades-long efforts to recolonize the island of Aogashima after it erupted in 1785. And Paul Kreitman traces the triangular relationship between humans, albatrosses and Izu-Torishima, another island that erupted in 1902 and 1939. Together, these papers will discuss the economic and ecological challenges and consequences of adapting to altered mountainous landscapes in the context of the country's (proto-)industrialization.

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Paper 1:

Paul Kreitman, Columbia University, New York, USA

Human and Avian Colonialities on a Volcanic Island: The Case of Izu-Torishima

This paper explores the triangular relationship between people and birds and a volcano that juts out from the Pacific Ocean. For hundreds of years Steller's albatrosses have returned to nest on the island of Izu-Torishima, a tiny volcanic island midway between mainland Japan and the Ogasawara Islands. In the late 19 century Izu-Torishima was colonised by Japanese settlers who earned a living slaughtering albatrosses and selling their feathers - first for export to Parisian hat-makers, then later to stuff futons. Ultimately it was the island itself that saved the birds from extinction - by erupting, first in 1902 and again in 1939, and in doing so forcing the wholesale evacuation of the human settlement. Since the end of World War II Japanese ornithologists and government officials have sought to transform Izu-Torishima into a nature reserve, «symbolically withholding the power to dominate» (Cronon, 1995) in order to accrue symbolic, cultural and diplomatic capital. Most recently this has involved an effort to establish new albatross colonies on other desert islands, lest the birds' original breeding sites are covered in lava. Izu-Torishima, with its geologically unstable oceanic-alpine terrain, provides an ideal site to explore ruptures, continuities and parallels between human and avian colonialities. It also serves as a meta-case study that lets us reflect on how scientists and historians narrativise human and non-human agency for ideological purposes.

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Paper 2:

Fynn Holm, University of Tübingen, Germany

Repurposing the Valley of the Gods: The Little Ice Age and Religious Mountaineering in a Japanese Mountain Valley, 1800-1850

Kamikōchi is a famous high mountain valley in the Northern Japanese Alps. Prior to its «discovery» by English mountaineers at the end of the nineteenth century, the valley has often been regarded as an «untouched» Japanese alpine wilderness. However, as I argue in this paper, in the late early modern period (1600-1868), the valley experienced for a short time a boost in popularity due to religious mountaineering, which left ecological ramifications that can be felt until today. As I show on the example of local petitions, domanial documents, and autobiographical records, the harsh climate of the Little Ice Age (1300-1850) strengthened religious connotations of Kamikōchi as the seat of the mountain gods, and local communities ascended to the valley to pray for favourable weather. In the 1820s, Buddhist monks “opened” up paths to the nearby mountain tops for pilgrims and inadvertently facilitated economic growth in the region through religious proto-tourism. However, when the Tenpō famine (1833-1837) threatened the livelihood of the local communities, they claimed that religious climbing had angered the gods and religious mountaineering was forbidden. The climatic downturn in the decade also led to the flooding and destruction of the recently opened mountain road and recent reclamation projects were halted as newly planted crops withered due to the shorter vegetation period.

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Paper 3:

Jonas Rüegg, University of Zurich, Switzerland

Post-Humanity Crisis on the Isle of Green: Disaster and Recovery After the 1785 explosion of Japan's Aogashima Island

When the earth trembles without warning, the «natural» disasters that ensue are never entirely natural. The 1875 explosion of Aogashima, an island located some 300 km south of the Japanese main islands, was a disaster that unfolded along the fault lines of social control, political fragmentation, and the whims of tectonic activity. This contribution examines the slow-moving crisis of yearlong eruptions and the ultimate displacement of an entire local community, as well as decades-long attempts at re-colonization of an arid volcanic isle. Based on official correspondence between the disaster's onset and the marginalized refugee community's official return to Aogashima five decades later, I trace down the ideals and systems of knowledge that informed the emergence of public and private relief systems, and projects to make an arid island arable. Striking at the height of the disastrous Tenmei Famine (1782–87) and carrying through to the crises of the Tenpō era (1830–44), Aogashima's devastation and re-colonization offer a local perspective on the evolution of a protective relationship between state, subjects and an increasingly commercialized economy over the decades leading up to Asia's first industrial revolution.

0407-224 on Wednesday, 23.08.2023, 9:00-10:30

Unitobler – F 022

Mountain critters and creatures – conflicts and coexistence

Organiser:

Claudia M Leal, Universidad de los Andes, Colombia

Chair:

Libby Robin, Australian National University, Canberra, Australia

Abstract:

This panel explores histories of human-animal relationships by addressing some species who live or work in mountains. We focus on land mammals (carnivore, herbivore, omnivore), via three wild and one domesticated in Canada, Colombia, Brazil and South Africa, with a shared focus on the twentieth century. The papers address historical cooperation and conflicts between humans and animals –and indeed humans and humans– that have had very different outcomes for the species involved. Two of the papers explicitly deal with science, but expose contrasts between conservation versus experimentation. All the papers address the symbolic aspect of animals from every-day quotidian interactions, practical conservation methods, cosmological imaginings, or even national state symbolism. Finally, each paper explores an aspect of historical co-existence, however ill-fortuned or encouraging, between two species: human and other animal.

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Presenter 1:

Monica Vasile, Maastricht University, The Netherlands

Marmot decline on Vancouver Island, a history of science and conservation

The 'critically endangered' marmots living on the mountain tops of Vancouver Island almost became extinct in the 1990s. It took humans nearly ten years to resolve that they were declining and to understand why. Eventually, scientists discovered that the cause of the marmots' decline was anthropogenic: extraction

of timber and construction of forestry roads changed the relationship between marmots and their predators - wolves and cougars. Logged land deceived marmots; when they dispersed, youngsters settled in clearcuts, which looked to be equivalent to alpine meadows. But there, they became easy prey: moving fast along the newly cut roads, predators had effortless access to marmot colonies in clearcuts. Scientists estimated the rate of predation was unsustainable. The tiny island population spiralled down the extinction path, and by the end of the 1990s, wild living marmots numbered less than fifty. But it was not the end of the game. Humans captured a part of the remaining population, transported them to Toronto and Calgary zoo for captive breeding, and then released the marmots back into the alpine habitat. In this presentation, I explore the story of the Vancouver Island marmots, a story of an intense human-animal relationship, unfolding across the second half of the twentieth century. This case explores a series of broader questions: How do humans come to understand animal lifeways and species decline? How do they act to repair damage and what can humans do in the face of extinction?

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Presenter 2:

Regina Horta Duarte, Universidade Federal de Minas Gerais, Brazil

The wandering wolf: conflict and coexistence in South American mountains and plains

In 1982, the priest from a Church in the Caraça Mountains, Brazil, noticed that the garbage was being turned over every night. He found the culprit to be a maned wolf (*Chrysocyon brachyurus*) and began leaving food for the animal. In the years that followed, wolves began climbing the church stairs every night to be fed, attracting religious pilgrims and eco-tourists. Various wild animals also came, from tapirs to hawks, feral felines to canids. The Caraça Mountains became a protected area in 1994, and local wildlife conservation programs gained momentum.

The «Guará» wolf, as it is popularly known, lives in diverse biomes in South America, especially tropical forests and the Cerrado, wandering through mountains and plains. He is a seed disperser, consuming several kinds of fruits. Monogamous pairs defend a shared territory of around 30 km², although the individuals rarely meet outside mating. With the advance of agriculture and urbanisation, the increasing encounters between maned wolves and humans have been mostly tragic. They suffer farmers' persecution, are affected by diseases typical of domestic dogs, and are often run over by cars.

My presentation will explore the relationships between wolves and humans, as well as wild and domestic animals. We will focus on the historical contexts of force, power, submission, and alliance between live beings who live in the mountains and plains where the Guarás roam.

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Presenter 3:

Sandra Swart, Stellenbosch University, South Africa

Apartheid's Baboons: how the state weaponised animal bodies

In 1997, the Apartheid-era covert biological warfare program was finally exposed after the CIA warned the new democratically-elected government about the ex-head of the clandestine operation, Wouter Basson's new career as a drug dealer. Upon his arrest, they stumbled upon classified files just lying in his car – these are archival gold for reconstructing how animals were used in government laboratories in the dying days of a white supremacist regime. At the Truth and Reconciliation Commission, Basson's covert project appeared a cross between a «Nazi plot and a James Bond movie», facing murder charges, unethical research, embezzling and drug-trafficking. Yet, often the only people picketing outside his trial were those against experiments on baboons – or the «thing from the mountain», as baboons are sometimes dubbed to avoid saying their name.

Baboon bodies were pressed into the service of the state – in crowd control and to kill/ intimidate Apartheid opposition, with a eugenic impetus in experiments towards anti-fertility and anti-virility vaccines

for African people. Finally, they used a baboon foetus to enchant Bishop Desmond Tutu, anti-Apartheid campaigner. This paper demonstrates not only the brutality but the banality of the Apartheid state. Brutality – to human and animal – is clear but also shows how most experiments on baboons were «ordinary» (if sub-standard) science predicated on contemporary primate-proxy models. It reveals how the state exploited human-animal relationships, crushing the shifting shades of meaning of baboons in African cosmology. It is a story of not only weaponizing animal bodies, but weaponizing a body of beliefs about animals.

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Presenter 4:

Claudia Leal, Universidad de los Andes, Colombia

A tribute to the mule

Fundamental across time and continents, mules, whose global numbers have been steadily declining over the last seven decades, seem to have largely fallen through the cracks of history. This paper seeks to contribute to reverse this trend of oblivion by making the case that this strong, noble, and reliable animal should replace the condor in Colombia's national emblem. Since Independence, mules went up and down the trails that traversed the three Andean ranges that served as home for over 85% of the national population. They carried the coffee sacks upon which the country's modernization depended, plus all sorts of cargo, and shaped the landscape with their stride and the pastures developed to feed them. They also served as stepping stone for those who wanted to build some capital of their own. As they partnered with men who specialized in dealing with them, they contributed to create a celebrated national type: the arriero or muleteer. In the second half of the 20th century, when roads replaced trails, trucks and «tractomules» replaced mule trains. These animals then gained importance in the lowlands, where they have contributed to the settling process that has turned jungles into grass plains. The proposal that this paper backs aims to recognize the mule as symbol of a mountainous country and contribute to highlight its historic role from Mexico to Chile, the region where this animal still holds some of its previous significance. However, this tribute should echo in the US, England and Spain, India and China.

0409-C05 on Wednesday, 23.08.2023, 9:00-10:30

Unitobler – F-105

Weather and Climates between Adaptation and Modification

Organiser:

ESEH Programme Committee

Chair:

Nicolas Maughan, Aix-Marseille University, France

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Paper 1:

Deirdre Daphne Moore, European University Institute, Florence, Italy

The best Climate in the World for the Management of Insects

During the late 18th century, the British East India Company with the encouragement of Joseph Banks, president of the Royal Society, formed a scheme to take over the Spanish Empire's cochineal insect dye monopoly based in the highlands of what is currently Mexico. They intended to grow the cochineal insects in Bengal and the eastern coast of India near Madras. The Company believed that the cochineal industry of New Spain would be destroyed by British competition from India within a few years. In addition, the

Company believed that: «the Natives seem if possible, better suited by their Customs and mode of Life for the Cultivation of such an article than even those of New Spain where the whole now centers». People and climate were linked in their minds, and they declared that the climate of India «sufficiently resembles that of America».

Extreme ignorance of insects, plants, people and climates doomed the venture from its conception. In Mexico, cochineal was often grown at altitudes thousands of feet above sea level in the Mexican highlands of Oaxaca. Despite being at similar latitudes, Oaxaca and Madras were profoundly different climatically. One was a temperate highland area of exceptional biodiversity, while the other, in India, was a coastal plain that had already been deforested by the late 18th century and turned into a coastal desert. Banks and the Company had little or no experience with the types of temperate zones that occur in areas of altitude at tropical latitudes.

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Paper 2:

Robrecht Declercq, Ghent University, Belgium

Rain on the High Plains. Hydroelectricity, water metabolisms and artificial cloud seeding in the mining region of Katanga (1950-1960).

This paper is devoted to the history of artificial rain-making on the high plains of Katanga. The high plains of Katanga were heavily dependent upon rain. Shortages of rain during the brief rain season caused serious problems in the energy-hungry copper mines of Katanga, that relied upon hydro-electricity. In the 1950s, the colonial mining industry experimented with a solution that became increasingly but only very briefly attractive for colonial actors: the making of rain. The technologies and science of cloud-seeding started to circulate after 1945, and seemed to pose an attractive solution to the colonial problems in terms of agriculture and energy. This paper reconstructs the usage, underlying science and technologies, in cloud-seeding techniques that were applied on the high-plains of Katanga as a way to better understand geoengineering in late colonial contexts. The aim of the paper is to understand high imperialistic techno-optimism in geo-engineering to solve problems related to colonial water metabolisms, by focusing on the case study of weather manipulation on the high plains of Katanga. While little is known on the subject, the paper reconstructs a network of geoengineering consulting companies, mining interests and colonial experts that hoped to implement technologies of cloud-seeding on a large scale in Africa. The paper also highlights the way in which extractive industries drastically affect local water metabolisms, and how geoengineering fitted in a long-term pattern of resource squandering in relation to extractivism.

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Paper 3:

Stefan Grab, University of the Witwatersrand, South Africa

A 200-year history of southern African snowfall over mountains and plains

Unlike for many European mountain regions, meteorological snow-measuring stations are absent in southern Africa. To this end, records of past snowfall events have been collected through documentary-based sources for southern African mountain and surrounding lower elevation regions. This paper presents the first outcomes of this project, with the aim to establish spatial-temporal variability and change in snowfall over the past ~200 years. In addition, the work provides detail on past severe snowfall events and associated consequences – specific examples being for 1853, 1886, 1902, 1939 and 1953. Data sources used include: 1) many national and local historical newspapers, some of which date back to the early 19th century; 2) early travel logs; 3) missionary letters and reports; 4) personal diaries; 5) Annual Colonial Reports and 6) the Cape Blue Books, amongst others. Satellite based snow records cover the last ~22 years. Outcomes show substantial spatial variability in snowfall occurrence and magnitude over time. While snowfall occurrence in lower elevation regions have significantly declined over time, this is not the case for highest mountain regions. Severe (and at times catastrophic) snowfall events were most common during the 19th century (late 1840s and 1850s in particular) and became progressively less common through the

20th and 21st centuries for both mountain and adjoining lower elevation regions. The severe snow-related disasters of the past are, as yet, unknown to the 21st century.

0410-365 on Wednesday, 23.08.2023, 9:00-10:30

Unitobler – F-113

Regions and Crises: Environmental History in tumultuous times (H)

Different World Session: The Historian in the Mirror

Organiser:

Andrea Gaynor, University of Western Australia, Perth, Australia

Chairs:

Ulrike Plath, Tallinn University, Estonia

Andrea Gaynor, University of Western Australia, Perth, Australia (V)

Abstract:

The 21st century has been characterised as a time of polycrisis: multiple, separate crises occurring simultaneously, feeding back into and amplifying each other. Many of these polycrises are global by nature, but this does not mean that we are all affected by them equally. The accumulation of crises might lead us to different understandings of what are the leading challenges of our time. As environmental historians and activists we have a strong shared understanding of global environmental crisis, but we face different crisis narratives around us. While political parties of all ideological shades are dealing with environmental crises in one way or another, the biggest divergence in perceiving crises is perhaps intergenerational. Behind this large debate, we are sometimes irritated by perspectives from other regions that we cannot understand. Should we take regional differences more seriously in considering global crises? How does regionality influence us as environmental historians? And how might regional perspectives illuminate our understanding of the compounding effects of polycrises?

In this reflective roundtable and interactive discussion we want to reflect on the perception of crises and the way how we are handling them in the different regions of the ESEH - within academia and in the public sphere. In doing so we want to strengthen our capacity to understand both regionality and crisis. During the course of the discussion we will collectively determine what, if any, outcome we wish to see from the session, for example an article, an (online) action or event, or something else altogether!

0411-226 on Wednesday, 23.08.2023, 9:00-10:30

Unitobler – F-121

Jewish Environmental History: Research Agendas and Possibilities for an Emerging Field

Organiser:

Netta Cohen, University of Oxford, United Kingdom

Chair:

Dominik Huenniger, University of Hamburg, Germany

Presenters of the Roundtable:

Netta Cohen, University of Oxford, United Kingdom

Efrat Gilad, University of Bern, Switzerland
Jonathan Schorsch, University of Potsdam, Germany

Abstract:

Environmental history or the study of human interactions with nature over time, has officially emerged as a subdiscipline during the 1980s and has ever since engaged with various other theoretical frameworks and historical subfields. Throughout the last decades, environmental historians have investigated human perceptions and practices concerning the natural environment via various political, cultural and material methodological frameworks. Jewish history has not yet gained sufficient attention within this context.

The historiography of European Jews, which in recent decades accepted the spatial turn in the humanities, has so far mainly dealt with aspects of Jewish urban life, albeit without specifically considering environmental aspects. In addition, the Jewish relationship to nature was usually addressed in relation to Zionist images of nature and landscape in Israel/Palestine. Nevertheless, scholars in this field have not yet systematically engaged with the critical and theoretical contemporary literature on environmental history and its key subjects.

In our roundtable, we will discuss the role of Jewish and Zionist history within environmental history and examine in what ways it is different or similar to other case studies of other minority groups or nations. By doing so we intend to stress the transnational, global and comparative aspects of Jewish history. In addition, alongside cultural environmental aspects, we wish to also emphasise some of the material aspects of Jewish environmental history while presenting attitudes and approaches to specific natural elements such as air, climate, water, soil, flora and fauna.

0412-410 on Wednesday, 23.08.2023, 9:00-10:30

Unitobler – F-122

Environmental dimensions of ruination. Neglected sites and spaces (H)

Organiser:

Małgorzata Praczyk, Adam Mickiewicz University Poznań, Poland

Chair:

Alexandre Elsig, EPFL Lausanne, Switzerland

Abstract:

In our panel, we'll look at the different urban and post-industrial sites, located in Poland, from an environmental perspective in the long distant period of about 75 years. One of the cases, the former Nazi factory Politz, after being dismantled in parts by the Soviet Army and partly taken away to the Soviet Union, became a neglected area that slowly came into ruination and in consequence, happened to grow into a thriving natural site that transformed into a kind of natural reserve. The second one – the former Jewish cemetery, fell into the process of ruination after being left alone after the 2nd world war in the cityscape of Jewish Breslau / Wroclaw. The third example refers to the post-industrial heritage of the Silesian mines and plants that were closed at the end of the communist period and afterward. All these case studies are based in contemporary Poland but refer to the former German heritage of the Silesian hills, Pomeranian plains, and the Upper Silesian city of Wroclaw. They refer to the different aspects of the difficult past of the Nazi period or communist times and show how historical negligence of remains can or could be transformed into a flourishing natural environment that can enable going beyond the dissonant human histories.

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Paper 1:

Małgorzata Praczyk, Adam Mickiewicz University Poznań, Poland

Environmental dimension of postindustrial Nazi factory of Politz/Police

In my presentation, I will analyse the post-industrial heritage of the III Reich, which was located in Poland, mostly on the hidden terrains of forests and other difficultly accessible, natural sites. I propose to take a closer look at the case of the former Nazi factory Politz / Police and the history of its post-war existence. This example reveals an interesting problem concerning the process that took place there in the long distant period of over 75 years. After being dismantled in parts by the Soviet Army and partly taken away by the Soviet Army to the Soviet Union, it became a neglected area that slowly came into ruination and in consequence, happened to grow into a thriving natural site that transformed into a kind of natural reserve. At the beginning of 21st century, it was inscribed in the list of European Union Nature 2000 sites. Its original reason for existence was rather forgotten. In the last decades, it had become the place where its past has slowly been going through the process of recovery, along with the process of revitalization of the site, which has become attractive in terms of its environmental conditions.

The given research problem poses many important questions concerning ways of dealing with the dissonant heritage and «contaminated landscape» issues as well as the question of identity work related to the environmental perspective that somehow goes beyond the memory work paradigm, traditionally linked to the atrocities of the 2nd world war.

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Paper 2:

Marta Tomczok, University of Silesia in Katowice, Poland

Paweł Tomczok, University of Silesia in Katowice, Poland

(Post)industrial negligence in Upper Silesia and Dąbrowa Basin

According to F. Junger, technology is based on perfection - accuracy, precision, and cleanliness of polished machines belong to the essence of technology. But their use of technical machines is inherently associated with dirt, dust, and environmental destruction. The industry, then, exists in a tension between pure perfection and dirty neglect. This opposition is shifting to post-industrial spaces. Many of them become the basis of neglected and abandoned environments. However, others are given the care that helps preserve old objects and shape a new natural environment.

In the paper, we would like to discuss examples of post-industrial spaces of Upper Silesia and Dąbrowa Basin, which are represented by both sides of the opposition. These will be the neglected areas of the Będzin district, where the Grodziec cement plant and the coal mine operated. Both plants closed more than 40 and more than 20 years ago, respectively. The ruins of the cement plant were overgrown with new vegetation, while the mine buildings were mostly demolished, and a forest has grown in their place. Oppositions to these neglected spaces are examples of the reclamation of the former Orzegów coking plant, which was closed in the 1940s. The area was neglected for forty years, but in 2021 it was renovated and cleaned. A playground, a place to rest, and a memorial site for an industrial facility were created there.

We would like to present the advantages of «neglecting» post-industrial environments around this opposition, as well as the doubts related to re-use of these sites and their reintroduction into the human economy.

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Paper 3:

Kamilla Biskupska, University of Wrocław, Poland (V)

Greener as the foundation of the «regained» urban identity. The case of Wrocław, Poland

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0413-215 on Wednesday, 23.08.2023, 9:00-10:30

Unitobler – F-123

Creative Research Methods (H)

Organiser:

Ben Anderson, Keele University, Newcastle-under-Lyme, United Kingdom

Chair:

Ben Anderson, Keele University, Newcastle-under-Lyme, United Kingdom

Presenters of the Roundtable:

Ben Anderson, Keele University, Newcastle-under-Lyme, United Kingdom

Ceri Morgan, Keele University, Newcastle-under-Lyme, United Kingdom (V)

Linda Ross, Keele University, Newcastle-under-Lyme, United Kingdom

Abstract:

Over the last decade, creative research methods (understood as the use of socially-engaged creative practice in research) have become a standard part of large elements of the broader environmental humanities and, indeed, environmental science projects from modelling landscapes to research into environmental health. As such, this roundtable will explore the potential for such methods in environmental history research. Drawing on the experience of a group of scholars collectively working on how such methods might be used in the context of landscapes of de-industrialisation, we aim to first, introduce the principles and concept of creative research methods, and second, create a forum in our roundtable for sharing best practice, discussing ideas and examples.

This interdisciplinary approach unites historians, authors, geographers, artists, film-makers and heritage professionals in communicating environmental history to a wider public. Notably, this is a dialogue, with communities retaining permanent stakes in the landscape, memory, culture and heritage of de-industrialising sites. What results are co-produced outputs which, although predicated on change over time, are firmly future-focused. This dynamic roundtable will demonstrate the value of applying socially-engaged creative practice to environmental history, emphasising the importance of collaboration in an

increasingly relevant field. It will open up discussion, with an interactive session dedicated to learning from each other.

10:30-11:15

Mensa/Entrance Area UniS & Unitobler

Coffee Break

Poster Session on Wednesday, 23.08.2023, 10:30-11:15

Mensa/Hallway UniS

Poster Session I

Poster 1:

Xinyue Li, University of Manchester, United Kingdom

Fashionable Numbers: Altitude as Science and Embellishment in Mountain Travelogues in Modern China

This paper aims to explore what changed in knowledge about mountain height in modern China and its driving forces from social and individual perspectives. Altitude in travel writings was not a habitual use. In modern Chinese mountain travelogues, it replaced rhetoric and developed into a necessary attribute to understanding mountain features.

After the mid-nineteenth century, the national crisis and the threat of colonialism forced the Chinese to learn western science. In this tide, knowledge about elevation and air pressure penetrated daily life along with the spread of modern education and mass media. Therefore, visitors consciously measured or recorded numerical height in travelogues. Precise figures in non-scientific texts revealed that elevation was recognized as common sense to know a mountain.

On the other hand, altitude numbers in travelogues caused barriers to reading and were reduced to decoration. It was a mimic of «scientific (reasonable)» examples that were constructed by western science in people's eyes but had limited practical use. Writing down these numbers, visitors showed their approval for «Saving China by Science» and believed they contributed to it. Also, since numbers were seen as a recognizable symbol of science and progress, these writers indicated themselves as educators with sufficient scientific literacy over the undeveloped society.

Through analysing the everyday use of altitude knowledge, this paper argues that a belief that numerical description, precision and measurement helped to build a powerful country spread over China after the mid-nineteenth century. And this belief led society to develop in this way.

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Poster 2:

Alexandra Raeva, ANO Arctic Design School, Russian Federation

Andrei Vinogradov, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

The princess of thaw. Human dimensions of climate change in the Altai Highlands (1993-2021)

This poster is not made from charts and photos, but from drawings and texts of the participants of the first-ever expedition (August 2021) aimed to investigate the human dimensions of climate change in the Siberian Altai. The Altai Highlands is a picturesque region inhabited mostly by Turkic peoples and popular among Russian tourists. Due to shallow winter temperatures, the Altai Highlands is equated with the territories of the far north and covered by permafrost. The climate is changing particularly rapidly and noticeably here. This is reflected in the changing architecture and the way of life of the locals: the melting permafrost is absorbing the villages, forcing its inhabitants to leave their ancestral pastures, and has recently caused the spread of the bubonic plague. The main purpose of the poster is to show how different categories of local people perceive these changes. Contradicting views of scientists, officials and indigenous peoples go back to the image of the Ukok Princess, an ancient mummy discovered there by archaeologists in 1993. The exhumation of the Princess became a conventional reference point: for the natives, it was the starting point of the collapse of the USSR and changes in the weather.

The rejection of photographs in favour of artistic images is the main feature of the poster. Art allows us to see what is happening not through the eyes of historians or anthropologists, but through those of local residents, for whom the mountain spirits and the Ukok Princess are as real as melting permafrost and climate change.

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Poster 3:

Cécile Bruyet, University of Antwerp, Belgium

Food from somewhere to someone's plate: urban households' food networks and climate shocks in late medieval Antwerp

How to feed a city was already asked by many historians but how were citizens fed and how did their individual strategies and networks influence the organisation of food flows? With a bottom-up strategy, I aim to finetune our knowledge on urban households' food networks via non-market supplies such as in-kind leases or urban farming taking Antwerp as a case-study. The lease contracts kept in the town's Schepenregisters have recently been indexed and are now available for a long-term study. To approach household's food strategies, I look at the long-term changes in the leases, focusing on location, soils and foodstuffs parameters, as well as evaluate the impact of critical moments of food shortage i.a. the climate-induced harvest failures of the 1430s within the long-term development of the town-countryside relationship. I ask why did urban townsmen opt for in-kind leases instead of cash, which role played risk, sustainability and local environmental knowledge in their relationship with rural food producers, and how did private decisions and networks influence the overall town-countryside relationship? The case of Antwerp –a rare example of urban growth in the fifteenth century– allows to include the impact of rapidly changing land-use patterns as well as migration in the setting of the town-countryside relationship. Insights in Antwerp's alternative food strategies will enrich our knowledge of medieval food history, while bringing forward the significance of knowing where present food grows, nowhere or somewhere, in an era of growing megacities and increased exposure of urban food supplies to climate extremes.

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Poster 4:

Petra J.E.M. Van Dam, Vrije Universiteit Amsterdam, The Netherlands

Bob Pierik, Vrije Universiteit Amsterdam, The Netherlands (V)

Who drinks which water? Plurality, Locality and Environmental (In)justice in Dutch Cities, 1500-1850

For the Netherlands, the history of drinking water is virtually unknown before the advent of piped water, starting around 1850. In this poster we present some first results of the research project «Coping with drought. An environmental history of drinking water and climate adaptation in the Netherlands, 1500-1850», Dutch Research Council, nr. 406.18.HW.015. This project investigates societal resilience to drought in coping with shortages of drinking water. In the Netherlands, in the Early Modern Period, the access to drinking water

was highly flexible and adaptable. People procured water from multiple sources like groundwater, rainwater, and surface water. For this they applied a sophisticated and complex micro drinking water infrastructure, including cisterns under and behind houses, and under public streets and squares, and even water transported to the towns by boat. Such infrastructures differed per region and even per town, depending on the specific characteristics of the soil, that often contained silty groundwater, and other aspects of the local hydrology. The benefits of the drinking water systems were not shared equally. Also over time, new demands developed regarding higher standards of comfort. Research questions include how the infrastructures were distributed in towns, how access was organized, in particular how lower income groups had access to drinking water, but also how norms and values regarding the quality of drinking water changed over time. Finally, how resilient was the system in periods of drought?

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Poster 5:

Ulrich Koppitz, Medical History Library Düsseldorf, Germany

Mountains and health in medical journals (Germany, 1870s-1918)

«The most efficient remedy ending on -ine is: The Engadine!» This pun is bequeathed in the autobiography of one of the most influential Prussian health officials, Adolf Gottstein (1857-1941), a social hygienist who enjoyed holidays in the Alps himself and published that contemporary measurements of blood improvement in higher altitudes were flawed, however.

Healing by nature has always had a double meaning: Inner nature, behaviour or self-healing powers of the patient on the one hand, external environmental factors on the other. Natural healers and conditional hygiene were based on the first whereas bacteriology, experimental and social hygiene tended rather to the latter. This dichotomy will serve as one of the categories under examination, others include characteristics of mountain exposure such as season and altitude, gender and age, and specific diseases. Transport, living conditions, and health characteristics of the local population might add a counterpart, especially in comparison to spas and seaside resorts. Especially sanatoria, not only for lung disease treatment, highlighted the use of lower or higher mountainous regions for health purposes.

Core sources of the analysis will be autobiographies of selected doctors and natural healers on the one hand, on the other hand statistical analyses of all (review) articles concerning mountains and health published in the balneological yearbook versus the central transdisciplinary public health review periodical for Germany (Jahrbuch für Balneologie & Centralblatt für Allgemeine Gesundheitspflege).

0500-499 on Wednesday, 23.08.2023, 11:15-12:45

UniS – S 003 | digital broadcast: Unitobler – F 021, F 022

Plenary Roundtable: Environmental History and Public Policy

Organiser:

EnvHist4P

Plenary chairs:

Adam Izdebski, Max Planck Institute of Geoanthropology, Jena, Germany

Cecilia Flocco, Leibniz Institute DSMZ – German Collection of Microorganisms and Cell Cultures, Germany

Presenters of the Roundtable:

Raphael Bucher, Federal Office for the Environment FOEN, Switzerland

Frances Colon, Centre for American Progress, Energy and Environment & The President's Council of Advisors on Science and Technology, USA

Pedro Conceição, Director of the Human Development Report Office, United Nations Development

Programme, USA

Chloe Hill, European Geosciences Union, Germany

Karin Ingold, Chair of Policy Analysis and Environmental Governance (PEGO) and Vice-President of the Oeschger Centre for Climate Change Research (OCCR), University of Bern, Switzerland

Abstract:

With the climate and biodiversity crisis, and the ongoing pandemic, there has been increasing interest on the part of public policy actors across the globe to draw on environmental science in responding to the emerging threats and in implementing the green transformation. This growing interest, and the current global crisis, is also a call to arms for environmental historians. However, like most of the humanities, our community's engagement with public policy making has been very limited and we lack both the experience and visibility needed to become partners in the process of policy development. The aim of the plenary discussion and of the workshop series that will follow it in the course of the ESEH 2023 is to provide a strong impetus for the environmental history community to engage with public policy in Europe and beyond.

Plenary Structure:

The plenary session is conceived as a meeting platform for environmental historians and policy stakeholders. It will be the forum for environmental historians to showcase their work and engage with the feedback from politicians and policy-makers, and to foster new, more practically oriented debate within our community. The plenary will last 90 minutes and will consist of three parts:

1) Lightning talks by selected environmental historians:

Davide Orsini, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

Energy and climate crises: the eternal return of nuclear power and the question of containment

Simone Müller, University of Augsburg, Germany

Toxic Commons. Why the Chemical IPCC needs the Humanities

Karla Garcia, University of Bielefeld, Germany

Rights of Nature

Amanda Power, University of Oxford, United Kingdom

Why historians are essential to public policy-making for climate adaptation

Joschka Meier, University of Bern, Switzerland

Skiing, Switzerland and Sustainability: Learning from the past to adapt to the future

2) Feedback discussion with the plenary speakers

3) Open debate between the public and the speakers

12:45-14:15

Mensa UniS & Unitobler

Lunch

Time Matters in the Anthropocene 1: Time Conceptualized

Organiser:

Erik Isberg, KTH Royal Institute of Technology Stockholm, Sweden

Chair:

Ada Arendt, University of Oslo, Norway

Abstract:

Time matters in the Anthropocene. Across disciplines, scholars are exploring the human impact on planetary processes, framed in a geological time scale, and thinking about the complex way in which time and temporality has been conceptualized and experienced. Whereas environmental humanities scholars have been working on the role that time and temporality play in, for example, extinction studies, historians have primarily been interested in what a focus on time means in theoretical terms. Time, like space, however is far from abstract. Its workings play a fundamental role in the way environments are shaped by scientific media and method, moderated through technology, infrastructure and art, and experienced and embodied. This panel sets out to explore the role that time plays in the formulation of ocean floor environments, taxidermic practices, extinction, manorial economies, geological speculations and environmental surveying and exploration. The panel aims to bridge the gap between theoretical work on time in the theory of history on the one hand, and empirical work on the production of environmental knowledge in environmental history on the other.

As the last decade's deliberations on the Anthropocene have shown, questions of how time is configured, in an era of rapid planetary change, are central to scholars across disciplinary boundaries. In this panel, we seek to explore how environmental history can critically intervene in these discussions by providing historical texture to abstract questions.

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Paper 1:

Erik Isberg, KTH Royal Institute of Technology Stockholm, Sweden

Oceanic Times: Temporality and Environmental Knowledge during the International Decade of Ocean Exploration (1971-1980)

In this paper, I seek to explore how the ocean sciences have produced and conceptualized time in the postwar era. I specifically focus on the scientific activities during the International Decade of Ocean Exploration (IDOE), an UN initiative to mobilize resources towards ocean science, and how these activities were concerned with negotiating and synchronizing time. A significant part of the IDOE concerned the need to understand geochemical and geophysical ocean dynamics, in order to enable accurate environmental prediction on a planetary scale. Finding ways to reconcile economic and agricultural forecasts with climatic and oceanic pasts and futures emerged as a key issue for the scientists of the IDOE.

The modern history of the ocean sciences is, as Lino Camprubi puts it, «a history of an increasing political, technological and epistemological integration of the world oceans into the world ocean». This integration, I argue, was also about temporality. Understanding how the ocean, as an integrated planetary system, operated on multiple temporal levels emerged as an increasingly important aspect of the ocean sciences. As humanities scholars are now turning towards the ocean, an increased attention to how ocean temporalities have been configured through scientific practice can open up, I believe, productive research questions. The «Anthropocene Ocean» did not arise out of nowhere. Placing time and temporality at the center of analysis can make visible how the production of oceanic pasts have come to shape our political present.

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Paper 2:

Leonoor Zuiderveen Borgesius, University of Oslo, Norway

Environmental History on the Grid, the Temporalities of Colonial Mapping in Suriname, 1896-1910

This paper studies maps as time tools in the environmental history of colonial spaces. It looks at the way in which the cultural technique of the grid, that is part of the optical repertoire that maps rely on, was used to shape parts of the landscapes in the former Dutch Caribbean colony of Suriname. Media theorist Bernard Siegert argues that the grid enables the map, and by extension the spaces and landscapes it puts forth, to function as a projection screen. It enables the manifestation of what is there, what is not there, and the design of a political or economic future imaginary that will be there.

The paper explores this use of maps and grids in three ways. First, it studies the usage of grids and maps in expedition reports of scientific explorations along the big rivers of Suriname between 1900 and 1908. Its technical affordances enabled the detailed environmental imagination of underground gold deposits. Maps were planning tools in the creation of a future of extractivism and economic exploitation of Suriname's resources and people. Secondly, they were instrumental in the issuing of mining- and especially railroad concessions by the Dutch colonial state between 1896 and 1910. By locking resource extractions into place for a set particular period of time, often based on speculation about future resource finds, they functioned as future contracts and economic scenario builders. In doing so, the paper aims to connect environmental history approaches to the histories of colonial exploitation and economic histories of capitalist time.

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Paper 3:

Ingar Stene, University of Oslo, Norway

Morals and Temporalities in Early Modern Geology

In this paper I explore three early modern works on geology, looking at how their authors dealt with the separation of what we today would call the biological and the geological, and how they developed, or failed to develop, temporal and moral schemes in order to both overcome the challenges of entanglement, or to capitalize on the opportunities it presented.

During the years 1657-1677, three very different works on geology were printed in Europe, all by authors living in or coming from Scandinavia. While these works had very different scopes, and ambitions, they all had to wrestle with the deeply entangled early modern concepts of geology, life science and theology. In short, they struggled to synchronise and integrate long geological processes, with the shorter cycles of observable life and human history, within the limits of a biblical timeline of 6000 years. But rather than succumbing to these difficulties, the early modern authors found strategies to face them not simply as problems, but also as opportunities. The prospect of time being etched into the strata of the earth offered a rich opportunity to craft new histories that reflected on the geological stratification of time, morality and history. As such, the emerging field of early modern geology was no stranger to the moral and historical implications of their studies.

In the Anthropocene we are once again becoming familiar with the early modern language of moral, temporal, and historical entanglements between the geological and the biological. If we are experiencing a continuity of, and a return to, ways of viewing the cosmos that blend these realms, how might this alter the way we conceptualize our own present? What might we learn from past endeavours into the muddled realms of geology, biology, temporality and morality?

Paper 4:

Emil Flatø, University of Oslo, Norway

«Jet Set» Science: Climate Change and Davosian Science-Politics

In 1996, the late Bruno Latour gave the keynote at a symposium on Jean Piaget in the Swiss city of Neuchâtel. He declared that «[e]pistemology is a professional hazard of first-class, air-conditioned train travel.» He contrasted the comfortable travel for the cosmopolitan academic, with a fictional character macheting her way through the rainforest. The point was that the more laborious route required that the traveller related to the socioecological complexity she encountered while the privileged experience of well-functioning infrastructures went by so quickly that the traveller was none the wiser.

In this paper, based on my work on the postwar encounter between climate science and futures studies, I will argue that the late 20th century saw the construction of a networked geography of pleasant, remote, and yet well-connected locations where interdisciplinary elites forged new understandings of shared global «problems», and long-term planning. The organizers of these conventions in alpine marvels like Bellagio and Davos, on the Stockholm archipelago or the Colorado mountains chose comfortable settings at a remove from the social richness of a city or sites that bore material witness to the ecological costs of industrialization.

Looking at this geography of knowledge production highlights deep compatibilities between the push for global integrated modelling of the climate system, and the dream, in cybernetic management science, of building comprehensive, computer-aided information systems for decision-making elites. It also raises a challenging question: What could be seen about socioenvironmental problems in privileged, protected and picturesque locations?

0601-136 on Wednesday, 23.08.2023, 14:15-15:45

UniS – A-022

Infrastructural Maintenance as a Tool for Environmental and Socio-economic Sustainability in the relationship between Alpine and Lowland Territories (Medieval Age-18th Century) (H)

Organiser:

Roberto Leggero, Università della Svizzera italiana, Switzerland

Chair:

Simona Boscani Leoni, University of Lausanne, Switzerland

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Paper 1:

Blythe Alice Raviola, University of Cambridge, United Kingdom (V)

Culture of maintenance along the river: mapping the Ticino in 18th century between political borders and environmental perspectives.

During the XVII century, the border between the Duchy of Savoy and the Duchy of Milan was deeply interested in the definition of boundaries and rights. The river Ticino, a tributary of the main river Po, was one of the most important watercourses for both the dominations, being used as an environmental resource and a political line. The paper aims to stress the culture of maintenance of the river during the XVIII century when the Kingdom of Sardinia was born and started to better define and fix the limit with the new Habsburgs State of Milan: woods, roads, canals, institutional and informal practices were involved

into the process, as cartography - among other sources - let us know. Particular light is shed thanks to the important series of maps drawn by the hydraulic engineer Giovan Battista Boldrini.

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Paper 2:

Cristian Vinazzani, Università di Milano, Italy

Along the Ticino river road: merchants and goods through the Alps in the 18th century.

In the 18th century, the Ticino River was a fundamental route for goods and people. Over its course, a lot of products were transported and smuggled. Ticino is the emissary of Lake Maggiore, which was known as an important trading floor, as Marina Cavallera and Alice Raviola have noted, and its connection to the Po River and Naviglio Grande was the primary link between Swiss and German territories and the plains of the state of Milan.

One of the earliest testimonies to its commercial relevance was provided by Friar Paolo Moriggia in 1602, who wrote about the role of Ticino as a link between Lake Maggiore and Milan. Because of the position of this region, currently known as Regio Insubrica, and the numerous commercial routes that passed through it, a lot of merchants found their fortune.

The link between the mountainous area and the plains can be studied to understand what goods were transferred and how they were transported; evidence shows that goods traveled from the plains to the mountains as well, and this movement involved people and workers in both directions.

The environment has played a huge role in this route, not only because rivers like Ticino are heavily influenced by changes in the environmental conditions, such as floods and droughts which can change or block communication, but also because it will be interesting to explore how human activities related to commerce have transformed the river and its ecosystem.

In conclusion, it seems useful to study how this route has changed the perception of mountains and their distance from the plains. Using GIS technology all these studies can find a new interpretation and new way to display results.

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Paper 3:

Magnus Ressel, Goethe-University of Frankfurt am Main, Germany

Street-building and street maintenance on a transalpine artery: The «Untere Straße» between Lindau and Milano in the 18th century.

The «Untere Straße» between Chur and Chiavenna with the Splügen as the decisive pass section was one of the main axes of transalpine long-distance trade from the late 15th to the late 19th century. Upper Swabia was connected with Lombardy via this artery, and the «Untere Straße» thus ultimately led from Central Europe to the Mediterranean. In the toll accounts of the 18th century, we find here colonial products as well as silk, fruits, spices, or cotton and industrial products from Great Britain. This road was thus of primordial importance for the Free State of Grisons and thus constantly in the focus of its ruling elite. The political entity of Grisons certainly did not invest its politicians with much authority but still showed impressive supra-local organizational capabilities when it came to the necessity of maintaining such an essential road.

Looking at the maintenance of the road will provide us insights into the organizational structures of the most democratic territorial «state» of Early Modern Europe. Nature was a particularly important factor on this road. Floods in the Rhine Valley and avalanches at the Splügen Pass were just as dangerous as the narrow crossings at the notorious «Via Mala», the «bad way» at a crucial section of the road. The inhabitants along the route developed complex techniques not only to maintain the road in a rugged natural environment but to preserve it as a competitive axis for international transit trade.

Medieval and Early Modern Disasters

Organiser:

ESEH Programme Committee

Chair:

Heli Huhtamaa, University of Bern, Switzerland

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Paper 1:

Marcel Keller, University of Bern, Switzerland

A refined genetic history of the second plague pandemic in Europe

The second plague pandemic in Europe, starting with the Black Death in the 14th century and lasting until the 18th century, is one of the most notorious and best studied pandemics in human history. Since the advent of paleo-genetics, the number of published ancient genomes of *Yersinia pestis* – the causative agent of plague – has risen to over 70 for the period of the Second Pandemic. However, most of the published genomes lack precise dating, hampering their association with documented outbreaks and diminishing their value for understanding plague dynamics. Here, we present eleven newly reconstructed *Y. pestis* genomes from eight archaeological sites in England, Estonia, the Netherlands, Switzerland, and western Russia spanning from the Black Death in 1349 until the Plague of the Great Northern War in 1710, offering insights into the geographic spread of individual lineages and the persistent presence of plague in the Eastern Baltic region. In addition, we introduce a novel approach for combining phylogenetic information, radiocarbon dating and contextual data to establish a refined genetic history and chronology of the Second Pandemic. By feeding in further information and more genomic data in the future, this methodology could allow full integration with paleo-climatic and paleo-environmental data, and improved phylodynamic modelling to better understand the underlying factors for the initial spread, regular resurgence and eventual disappearance of the Second Pandemic in Europe.

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Paper 2:

Philip Slavin, University of Stirling, United Kingdom

Tracing Spatio-Temporal Contours of Late-Medieval Plague Waves, c.1356-1465

The question of the existence of a European plague reservoir has been a topic of a scientific and scholarly debate and controversy for a few years now. Both scientists and historians have put forth different views

and interpretations, often based on epidemiological models and fragmentary evidence, both in favour and against the existence of such reservoir. Most recently, the topic returned to the forefront of plague-themed scientific controversy (Bramanti et al. 2021; Slavin 2021; Green 2022; Slavin 2022).

The proposed paper, bringing together the available textual and phylogenetic evidence, from all over West Eurasia and North Africa, will aim to show empirically the presence of a medium-term plague reservoir in Central Europe which, in addition to the pestis secunda of 1356-64, would send subsequent waves radiating all over for the next hundred or so years. The paper will establish the timing of each wave, and the contours and mechanisms of its spread, correlating these against paleo-climatic data from around its putative reservoirs and paths it took. The paper will conclude, on the basis of the available evidence, that this medium-term reservoir, most likely thriving in common vole burrows, was responsible for post-Black Death waves, and that it was not until the later 15th century that we hear about recurrent introduction of plague from outside of Europe. A hypothesis will be offered regarding the decline and eventual disappearance of the same reservoir.

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Paper 3:

David McCallam, University of Sheffield, United Kingdom

Contagion: The Marseille Plague of 1720-1722 and Bacterial Subjectivity

At its peak in late August 1720, the bubonic plague epidemic in Marseille killed 1,000 people a day and ultimately took the lives of nearly half the city's 100,000 inhabitants. Residents of different social orders thus saw their relationship to each other and to the environment of the city shift in novel and disturbing ways. As the city was locked down to prevent (unsuccessfully) the further spread of the disease, its residents were obliged to interact physically with plague victims, both in life and death. Yet, as eyewitnesses, such as Jean-Baptiste Bertrand, make clear, human contact and compassion were reduced to a minimum, with the plague dissolving social bonds, atomizing individuals, in a sort of «degree zero» of social interactions. In this situation, individual and collective subjectivity was constantly renegotiated. What is more, as recent environmental humanities research into the «viral subject» has contended, a sense of subjectivity may be further decentred when one's choices and acts are determined in part by non-human agents such as a bacillus, fleas, lice, rats or other potentially infected animals. This interrogation of early modern subjectivity thus recognizes that, specifically in the built environment of an international port city, humans do not exclusively occupy a form of life but, rather, a nexus of lifeforms. The principal question posed then is: «who» or «what» thinks, feels and acts when subjects are exposed to the plague in early eighteenth-century Marseille?

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Paper 4:

Niklaus Emanuel Bartlome, University of Bern, Switzerland

Wine, vacherin and volcanoes: Impacts of the 17th century large volcanic eruptions

It is today undisputed that the volcanic eruption of Tambora in 1815 caused a year without summer in Central and Western Europe, which led to crop failures, inflation, disease and famine. However, little attention has been paid to the long-distance effects of the great volcanic eruptions in the 17th century on agriculture and society in early modern Switzerland.

Using a regional example, the present study attempts to examine the climatological and socio-economic effects of those eruptions and the coping strategies that were developed as a result. For several centuries, the Hôpital des Bourgeois de Fribourg meticulously recorded every year all their harvests of crop, wine and dairy products - such as the famous Vacherin cheese - and the number of cattle slaughtered. Thanks to these direct or indirect climate proxy data and new climate reconstructions, possible climatological effects will be recorded.

As an institution, the Hôpital des Bourgeois de Fribourg possesses, in addition to these account books, an archive with an extended corpus of sources documenting the history of this institution. This novel archive

material, such as the memorabilia, the manuaux and the regulations, allow us to draw conclusions about the socio-economic impact of the climate crises of the 17th century and the responses of this important social and economic institution. In other words, we will among other things see how volcanoes affected Fribourg's viticulture in the plains and their Vacherin production in the mountains.

0604-444 on Wednesday, 23.08.2023, 14:15-15:45

Unitobler – F-005

Agriculture and Expansion in the First Era of Globalization: Race, Capital, and Diplomacy in European Empires, 1880-1920

Organiser:

Gilberto Mazzoli, European University Institute, Florence, Italy

Chair:

Georg Fischer, Aarhus University, Denmark

Abstract:

This panel includes four papers focusing on the intersection between agriculture, race, and colonialism across three European imperial contexts – Germany, Britain, and Italy. Together, the papers interrogate how agriculture and climate science became central to European officials' understanding of their colonial projects. Across all four papers, the intention is to centre scientists, professional agriculturalists, and colonial administrators to explore how they viewed not only the land and environment, but also how they perceived the original inhabitants, workers, and other individuals who inhabited these spaces. The papers are rooted in place and focus on the British settler colonies, Italian migrants in the United States, and German climate scientists; as such, the papers bring together different European perspectives united by their emphasis on the interplay between agriculture and colonial expansion.

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Paper 1:

Alice Louise Gorton, Columbia University, New York, USA

«Infinite» Exploitation: Grain and the Rise of Capitalist Agriculture in Canada and Australia

This essay builds out existing historiographies on food politics in the British empire by exploring how the expropriation of Indigenous peoples and the incorporation of their lands into global agricultural supply chains affected the social dynamics of land use and ownership on the ground in Canada and Australia in the period from 1870 to 1914. Examining how British demand for grain drove territorial expansion in these “frontier societies,” the paper centres on wheat fields, viewing them not as “vacant” expanses awaiting cultivation, as past studies have, but rather as active sites of conflict over land and resources among state and colonial officials, settlers, and Indigenous groups in the Canadian prairies and South Australia. The paper explores these sites of settler colonial contest using governmental records from the Department of Agriculture and Immigration in Canada and the Department of Land in Australia, as well as Colonial Office records in Britain. In addition, it draws on settler newspapers such as the Manitoba Free Press and the South Australian Gazette to look at how settler colonists' ideas about the “limitlessness” of natural resources – particularly soil and land in this period – informed the development of capitalist farming on the ground and, later, these countries' entry into the global market for staple food sources, especially grain.

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Paper 2:

Sara Müller, Georg August University Göttingen, Germany

Counting Coconut Trees: German Scientific Expeditions at the Sepik River in Papua-New-Guinea

The Kaiser-August-River-Expedition (1912-1913) is best known for its wide collection of ethnological objects from the river Sepik located in the north of today's Papua-New-Guinea. These objects are stored and exhibited in German museums and collections and are part of discussions in science and society. Less is known about the other collections that were gathered during this scientific expedition like mineral, zoological, and botanical specimens. The purpose of gathering information on the agricultural structure of the Sepik River, the collection of natural products and mineral deposits was to exploit the resources of the Sepik region for the German economy. Like the ethnographic objects, these collections are stored in German museums and research institutions like the Botanical Garden or the Natural History Museum in Berlin. The paper wants to ask which agricultural interests' German scientific institutions, the German colonial government and private companies had in the Sepik Region. Which roles played the Sepik River in the German colonial project? How did local knowledge and the employment of local experts help with the research? And which role did the specimens and scientific results play in the home institutions? Based on some examples from the wide collections of lists of counting's and specimens' plants, meteorological measuring's and 69 mammals, 2,118 birds, 3,61 reptiles and amphibian, 30 fishes, 32,699 insects and 3,000 other spineless animals of the Kaiser-August-River-Expedition, this paper wants to highlight the role these collections played within the German colonial project.

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Paper 3:

Gilberto Mazzoli, European University Institute, Florence, Italy

Climates of Migration: science, race, and agricultural diplomacies between Italy and the United States. 1880-1912.

At the turn of the 20th century the Italian and US governments aimed to create agricultural colonies with Italian migrants. They agreed that the most favourable outcome would be to direct new migrants and relocate urban migrants to rural colonies. Rural colonies represented the material ground where US and Italian aspirations on migration policies meet. To tailor migrants and national interests, diplomats, politicians, agrarian experts and enthusiasts developed a new ground for international collaboration that can be labelled as agricultural diplomacy. Whilst the science emerged to prove the potential of the southern US states as colonies, more was needed to cement the idea that this was the place to go. Within this paper I would like to explore the interplay of science, politics, and race with the environment. Firstly, science played a significant role in colonization projects: it involved many Italian institutions like the Italian Agricultural Colonial Institute, the Italian Colonial Institute, and the Italian Geographic Society. To do so, I analyse the role played by scientists and professional agriculturists in this peculiar form of diplomacy, to unveil their perceptions and ideas of the new climates and environments they approached and to show how they read, understood, translated, and also exploited them. Secondly, I deepen how diplomats, authorities and landowners, together with scientists and agronomists, dealt with migratory issues and migrants' and workers' bodies. This Italian agricultural colonization would be put in the context of the complexity of US racial relations in order to show how colonization would have increased the white population in the South.

0605-336 on Wednesday, 23.08.2023, 14:15-15:45

Unitobler – F 013

Humans and the Environment in the Russian Far East: From Microbial to Planetary

Organiser:

Anna Mazanik, German Historical Institute, Germany

Chair:

David Moon, University of York, United Kingdom

Abstract:

In the last several years environmental history of the Russian Far East and North Pacific emerged as a new and growing field in Russian studies. The panel presents ongoing research projects in this field, focusing specifically on the Soviet and post-Soviet eras up to the present time. In this period the Russian Far East experienced first a rapid population and industrial growth, joining the global trends of the Great Acceleration. However, that growth, quite differently from the neighbouring countries of Asia Pacific, was then followed by a dramatic de-industrialization, population decline and decarbonization. The latter trend has reversed again since the late 1990s, as new big fossil fuel extraction sites went into operation and the car density rose spectacularly in parts of the Russian Far East. In our panel we will discuss how human relations with their environments, from microbial to planetary, evolved as the region lived through these transformations, how they were affected by the rise and collapse of the Soviet system, by the Second World War and the (end of the) Cold War as well as changing political and ecological concerns and what these regional developments mean for our global future in the Anthropocene.

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Paper 1:

Anna Mazanik, German Historical Institute, Germany

Bloodsuckers: War, Disease Environments, and Soviet Medicine in the Pacific Borderlands, 1930-1950

The paper discusses Soviet experience with two endemic diseases of the Pacific region--tick-borne encephalitis and mosquito-borne Japanese encephalitis. It investigates Soviet efforts to understand and control those two dangerous «nature's infections» in the context of the Second World War and the early Cold War. Following the identification of the tick-borne encephalitis and Japanese encephalitis viruses and vectors in the late 1930s, these diseases emerged as major health hazards for the Soviet military and industrial colonization of the Far East, the region that maintained strategic importance on the background of military conflict with Japan and Soviet support for the communist regimes in Korea and China. Examining scientific expeditions to study these diseases in Soviet Primorie and Manchuria as well as civilian and military health programs against them, this paper will show how the encounters with zoonotic encephalitis in the Pacific have changed the fields of disease ecology, virology, and environmental health and how the efforts to control these diseases have transformed the environments shared by humans, mosquitoes, ticks, and other living beings.

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Paper 2:

Benjamin Beuerle, Centre Marc Bloch, Germany

Pilot Region Sakhalin – The Climate Experiment

For most of the time, climate change has not ranked very high on the agenda of Russian decisionmakers, nor in the attention of the Russian public. However, in 2020-2021 substantial changes were observable. Climate change mitigation was the subject of a considerable number of debates and initiatives. The most

striking example is the case of Sakhalin. Beginning in 2020, this Far Eastern island and oblast' has been singled out as a Russian pilot region for various climate policies – with the aim to achieve carbon-neutrality as early as 2025! The pilot region status and the prospected policies, including a cap- and trade system, were the subject of controversial debates in the State Duma before being confirmed by a federal law that was signed by the president early in March 2022. Despite all odds and strong objections, the pilot project on Sakhalin started officially in September 2022. The present paper sets out to study press reports, parliamentary debates and public announcements about what has frequently been called the Climate Experiment in order to analyse its origins and motivations behind it, the role of various actors for its coming into being as well as concrete measures foreseen on the way to climate-neutrality. As will be argued, though the 2025 neutrality goal is hardly credible, indeed the fate of the Sakhalin experiment is of considerable importance for Russian climate policy prospects as a whole.

0606-164 on Wednesday, 23.08.2023, 14:15-15:45

Unitobler – F 021

Mountains, Forests and the Emergence of European Timber Markets in the Nineteenth and Twentieth Centuries

Organiser:

Martin Bemmann, University of Freiburg, Germany

Chair:

Lena Krause, University of Freiburg, Germany

Discussant:

Martin Bemmann, University of Freiburg, Germany

Abstract:

In Europe, trans-regional timber trade began centuries ago. However, industrialisation changed its pattern considerably: it enlarged existing markets, established new ones and integrated wood supplying and consuming regions of almost all parts of the continent in one multi-layered economic space. Simply put, northern, east-central and south-eastern Europe supplied the industrial centres in north-western, central and southern Europe.

Canals and railways were most important for this process. This is especially true for the exploitation of mountainous forests in relatively remote areas like the Carpathians or the Balkan Peninsula. The emergence of modern international timber trade therefore seems to mirror paradigmatically how technology helped to overcome the natural boundaries of resource utilisation.

This is not entirely true, however. Mountains, rivers and seas significantly shaped the structures of markets for wood products wide into the second half of the twentieth century. Contemporaries distinguished a southern and a northern area with differing prices, commercial practices and market structures. Also, until the 1960s, extra-European wood products played only minor roles on the continent's markets due to geographical, biological and climatic reasons.

By focussing on the Carpathians, Bosnia and the Italian Alps, this panel aims at exploring these processes which linked remote, mountainous forest areas with industrialised centres in «the plains». It discusses the differing motives for the capital-intensive exploration and asks for the economic, social and environmental consequences it had in the different regions. In addition, the contributors assess to what extent the specific geographies, climates and – coming with them – biological characteristics of woods co-shaped the emerging market structures.

Paper 1:

Jawad Daheur, CNRS Centre National de la Recherche Scientifique, France

Up to the Heights! The Integration of Austria-Hungary's Mountain Forests into the European Timber Markets (late 19th-beginning of the 20th century)

For centuries, alpine forests have been exploited in Central Europe. However, it was not until the arrival of the railway in the last third of the 19th century, that these areas began to be radically impacted by the industrialization. The Habsburg Empire formed a compact, riparian heartland bounded on most sides by mountains: the Alps in the west; the Carpathians in the east and north-east; the Sudetes in the north-west; and the Dinaric Alps in the south, close to the Adriatic Sea. Under the influence of the growing demand for timber in the plains, the forests covering most of these mountainous areas began to be exploited in a large-scale and capital-intensive manner. Based on an original and comprehensive spatial analysis of railway development across the Habsburg Empire, as well as different case studies using diverse archival and published materials, this presentation attempts to describe the sociotechnical systems that enabled the incorporation of these mountainous territories into the European timber markets. Particular attention will be given to the private and public actors involved in the conquest of the Carpathian forests, the technologies they used and the resulting interactions with the natural environment.

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Paper 2:

Giacomo Bonan, University of Turin, Italy

Industrialisation or deindustrialisation? The Alpine timber sector at the turn of the 19th century

Until the second half of the 19th century, the timber trade was a strategic sector within the integrated economic model that characterised the Alpine world. At the institutional level, the Alpine communities, which often boasted property titles over the woodlands, obtained the financial resources to meet their main expenses from the sale of timber and the granting of cutting licenses. In addition, the timber sector provided employment opportunities for the local population in the cutting and logging activities as well as in the sawmills. Finally, the riverine timber trade was the main factor of integration between the Alps and the neighbouring urban areas of the plain. The technological advances made during industrialisation, particularly the development of the railway network, profoundly changed the geography of timber flows and caused the decline of the activities related to the exploitation of the Alpine forests. The levelling of transport costs made it much more convenient to exploit the more extensive forests of central and eastern Europe, which until then had been little used because of their distance from urban centres and waterways. The paper analyses this process as an example of rural deindustrialisation that resulted also in material changes in the management of woodlands and in their legal status with a strong impact on the social practices and lifestyles of the rural communities.

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Paper 3:

Iva Lucic, Uppsala University, Sweden

Plains and Mountains Across Regimes: Glocal Timber Export in Bosnia and Herzegovina During the Transition Between Imperial and Post-Imperial Governance 1910-1930

With a special view on timber exploitation of the Krivaja valley around Zavidovići, the paper discusses the local dynamics of the global timber export in Bosnia-Herzegovina between the 1910s and 1930s. In this period, Bosnia and Herzegovina underwent major socio-economic and ecological changes from having been an extractive periphery of the Habsburg Empire to become one of interwar Yugoslavia. Special attention is given to three separate but inter-related aspects:

Firstly, the impact of regime change and the transition from Habsburg imperial governance to post-imperial state building on Bosnia's timber exports. During Habsburg's imperial governance Bosnia became a timber provider for the central lands of Austria-Hungary, Germany and Italy but also for destinations such as India and North Africa. Due to Habsburg's low-price policy of Bosnian timber the region became internationally known as the Bosnian Danger. During the interwar period, forestry remained one of the most important industrial sectors whereas Interwar Yugoslavia ascended to the world's seventh largest timber exporter.

Secondly, the period assessed marked major infrastructural projects of building new railway lines that made forests in remote areas and at higher altitudes accessible for export-oriented timber commerce. At the same time, they connected the region with its major export destinations. The dynamics of the successive transition of exploitative actions from plains to mountains as a consequence of railway projects are discussed as well as their transforming effects which turned remote woods areas into "productive areas" for commerce-based timber markets.

Thirdly, the paper explores the ways in which the political transition from empire to post-imperial states impacted the geographical vectors of economic action of the region's timber export.

0608-322 on Wednesday, 23.08.2023, 14:15-15:45

Unitobler – F-023

Melting Glaciers and changing climates: Histories of knowledge production on ice, 1920s-1990s

Organiser:

Katja Doose, University of Fribourg, Switzerland

Chair:

Christine Bichsel, University of Fribourg, Switzerland

Abstract:

Glaciers are an iconic attribute of high mountains and the polar regions. At the same time, their retreat has become a symbol of climate change, turning them into an «endangered species». Today, the study of glaciers and the study of climate are closely linked and taken for granted. However, this has not always been the case. The interrelation is the result of fundamental scientific, social and political changes that began during the end of the 19th and took mainly place during the 20th century. Our panel analyses the history of this relationship between glacier and climate knowledge by asking how understandings of melting glaciers formed into knowledge on climatic changes. With a focus on the period of the 1920s-1950s, it discusses how the generation of knowledge about ice influenced climate science and vice versa. The presentations include various different levels of this knowledge transfer: on the geographical level (the knowledge transfer between the mountains and the Arctic plains) on an epistemic level (between glaciology and climate science), a societal level (between politics, economics and science), and between the different scales of ice ranging from studying snowflakes, ice layers, icebergs, to large ice sheets. The panel offers case studies from different geographical perspectives, such as the Soviet Union, Greenland, Japan or Switzerland.

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Paper 1:

Sverker Sörlin, KTH Royal Institute of Technology Stockholm, Sweden

State changes on the margin: Transferring snow to ice

«Ice is central to climate, geology and life. Understanding its behaviour is essential for predicting the future of our planet.» Thus wrote Swiss scientist Thorsten Bartels-Rausch in *Nature* 2013 («Ten things we need to know about ice and snow»), summarizing state-of-the-art surface chemistry of ice and snow. The focus of climate change science has since the middle of the twentieth century, been largely on the effects of growing quantities on greenhouse gases in the atmosphere, a major effect of which is the melting of glaciers and ice fields. However, also at play in the large-scale equation of human-climate relations is the micro-behaviour of cryosphere elements. How they melt and how they form, may depending on their properties on the molecular scale affect the rates of change in the cryosphere, which in turn will have feedback effects on melting at large, both locally and on the planetary scale. In this paper, I will study the interest in transitions from snow to ice, and how these transitions became an issue of glacial formation, retreat and ultimately of climate change. Against the background of the several theories of snow-ice state change that appeared as interest in glaciers started to grow in the 19th and 20th centuries, I will then focus on the Japanese physicist Ukichiro Nakaya, who is accredited with creating the first snowflake in the Low Temperature Laboratory, Hokkaido, Japan, 1936. During the Cold War, Nakaya turned his interest to glaciers, illustrating with his career the general shift away from snow to ice as the remote, strategic element for both Arctic warfare and for understanding climate change through temporal change indicators such as ice-cores and sea ice.

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Paper 2:

Mark Carey, University of Oregon, Eugene, USA

From Greenland Mountains to Vertical Ocean «Plains»: How Iceberg Drift Shaped the History of Climate Knowledge

Everyone knows an iceberg sank the *Titanic*, but very few recognize the substantial role icebergs have played in the history of climate knowledge. Icebergs originating on Greenland mountains have drifted all over the North Atlantic Ocean «plains». This paper explains three key episodes of iceberg influence on climate knowledge: (1) the way iceberg surveillance to protect transatlantic shipping lanes generated understanding of ocean currents and vertical ocean layers, which were key to understanding climate dynamics; (2) the discovery, while looking for a seafloor site to dump nuclear waste, that massive armadas of icebergs had transported mountaintop rocks and sediment from the Arctic to Portugal during what climate scientists came to label paleoclimatic Heinrich Events; (3) the realization that icebergs affect global climate and sea levels, with bergs influencing ocean salinity and temperature as well as rates of Greenland Ice Sheet melting. These three topics illuminate a history of knowledge transfer. For one, iceberg drift across thousands of kilometres (linking mountains and plains) drove development of ice and climate knowledge. Knowledge also transferred from business and geopolitical sectors in the ocean to oceanographic and climatic science. Importantly, the paper reconceptualizes "plains" as including the ocean, which helps decentre land-focused orientations of environmental history. The analysis also shows, and argues for, vertical conceptualizations of mountains and plains. After all, icebergs drift horizontally through space, but they collided with human political-economic-scientific projects at different vertical levels: the seafloor, temperature layers in the ocean, sea surface, coast, mountaintops, and atmospheric levels.

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Paper 3:

Katja Doose, University of Fribourg, Switzerland

Melting ice and mounting harvests. Knowledge production on glacier retreat in the Soviet Union during the IGY 1958-58

Out of today's viewpoint, the first issue of the Soviet journal «Materials of glaciological research» from 1961 reads like the beginning of an environmental apocalypse in the form of melting glaciers. One report after the other mentioned glacier retreat or ice degradation in the Pamir, the Tian Shan, the Caucasus and

of course, in the Arctic and Antarctic. The data for the glacier observation during those years was generated during the International Geophysical Year 1957-58, a programme that served to measure the world and to produce large amounts of data. But the collective observations of glacier retreat at the time did not seem to alarm scientists. To many these changes were all part of natural fluctuations. It thus poses the question of the role of the IGY in turning glaciers into an «endangered species» (Carey 2007). In my paper, I will explore, first, how and why this knowledge was generated in the Soviet Union within the IGY. While research on Antarctica and the Arctic made sense from a military point of view, researching mountainous glaciers was less obvious. Second, I am interested in understanding how and if the observations on the retreats were associated with climatic changes and how scientific institutions responded to these new glacier dynamics. I argue that, following the long tradition of thought on the stability of climate, glaciologists in the Soviet Union used the observations of retreating glaciers in the 1960s foremost to understand the glacier run-off for electricity production and irrigation, to ensure water supplies. The paper will shed light on the history of glaciers and their long way to becoming icons of climate change.

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Paper 4:

Dania Achermann, University of Wuppertal, Germany

There and back again: Scientific knowledge transfer between the Swiss Alps and the Arctic glaciers

Out of today's viewpoint, the first issue of the Soviet journal «Materials of glaciological research» from 1961 reads like the beginning of an environmental apocalypse in the form of melting glaciers. One report after the other mentioned glacier retreat or ice degradation in the Pamir, the Tian Shan, the Caucasus and of course, in the Arctic and Antarctic. The data for the glacier observation during those years was generated during the International Geophysical Year 1957-58, a programme that served to measure the world and to produce large amounts of data. But the collective observations of glacier retreat at the time did not seem to alarm scientists. To many these changes were all part of natural fluctuations. It thus poses the question of the role of the IGY in turning glaciers into an «endangered species» (Carey 2007). In my paper, I will explore, first, how and why this knowledge was generated in the Soviet Union within the IGY. While research on Antarctica and the Arctic made sense from a military point of view, researching mountainous glaciers was less obvious. Second, I am interested in understanding how and if the observations on the retreats were associated with climatic changes and how scientific institutions responded to these new glacier dynamics. I argue that, following the long tradition of thought on the stability of climate, glaciologists in the Soviet Union used the observations of retreating glaciers in the 1960s foremost to understand the glacier run-off for electricity production and irrigation, to ensure water supplies. The paper will shed light on the history of glaciers and their long way to becoming icons of climate change.

0609-C27 on Wednesday, 23.08.2023, 14:15-15:45

Unitobler – F-105

Nations, States, and the Politics of Nature (H)

Organiser:

ESEH Programme Committee

Chair:

Wilko Graf von Hardenberg, Humboldt University Berlin, Germany

Paper 1:

Noémi Ujházy, University of Nottingham, United Kingdom (V)

Michael Heffernan, University of Nottingham, United Kingdom

Mapping Soils in the Early 20th Century: National Projects and International Ideals

The development of soil science in the opening decades of the 20th century provides a revealing case study in the tensions between nationalism and internationalism in the history of science. The internationalization of soil science, promoted at a series of international conferences inaugurated in Budapest in 1909, reflected an apolitical commitment to universal scientific principles that was consistently challenged by deepening geopolitical tensions between rival nation states and empires. This paper considers the contested politics of soil science in this period, with particular reference to the national and international mapping projects devised and debated at these international soil science conferences. Most soil mapping projects were funded by national scientific institutions and reflected overtly nationalist politics of agricultural development and state-building, especially after World War One. Many of the delegates at the international soil science conferences sought to overcome these national differences and harmonise the methodologies of soil classification and mapping, with mixed results. In this spirit, the International Society of Soil Science (ISSS), established in Rome in 1924, launched a European Collaborative Soil Map, overseen by Hermann Stremme (1879-1961), a German soil scientist based in the 'free' League of Nations city of Danzig (Gdańsk) who was also responsible for detailed soil map of Nazi Germany.

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Paper 2:

Julia Marinaccio, University of Bergen, Norway

Surveying Forests in Mountains and Planes: State Spatialization in the Early Years of the People's Republic of China

China has a long history of forest documentation and assessment, with Chinese bureaucrats and scientists at the forefront of this endeavour. But forest surveys are both a functional bureaucratic practice of natural resource management and a representational practice in the symbolic and cultural reproduction of power. This chapter focuses on forest surveys in the early 1950s after the founding of the People's Republic of China. It argues that more than in any other historical period, forest surveys were critical for state spatialization, thus in the construction of the newly founded state as a concrete, overarching, spatially encompassing reality. Two research questions shall be tackled here in specific: Firstly, how (by what procedures and techniques) did forest surveys make the state's verticality and encompassment real and tangible? Secondly, what role did trained foresters play in conceptualizing this new vertical and encompassing state? The analysis demonstrates that forest surveys located the nascent PRC within a «widening series of circles» whose beginning were forests and whose end was the system of socialist nation-states. Trained foresters actively helped produce the state's spatial and scalar image but were also objects of the very same spatial and scalar image.

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Paper 3:

George L. Vlachos, National Hellenic Research Foundation, Greece

Reclaiming National Soil: A macroscopic view into the Interwar land reclamations of southern Macedonia

This is an aspiring project that brings under its scrutiny three land reclamations carried out in southern Macedonia from 1925 to 1940. More than being works of hydraulic engineering, these reclamations became part of a greater social engineering scheme promoted by the Greek state. Apart from rendering southern Macedonia the breadbasket of Greece, an equally likely motive or an equally desired outcome was the disruption of the social and ethnic coherence of the populations that resided in the province to nullify claims from antagonistic Balkan states in this infamously unstable region. Following the

unsuccessful agricultural modernization efforts of the Greek state in southern Macedonia. Greek governments, from 1925 onward, proceeded into a series of major public works that were meant to facilitate the incorporation of the province. Even more importantly, the sense of urgency regarding the land reclamation was accelerated due to the population exchange between Greece and Turkey that was signed in 1923, according to which hundreds of thousands of Orthodox refugees were to be resettled in southern Macedonia. Three such works radically transformed both the social and environmental landscape of southern Macedonia, each of which will be analysed separately: the land reclamation of the Giannitsa Lake (1925-1936), the reclamation of Ahinos Lake, (1928-1937) and finally the draining of the Phillipoi Marshes (1931-1936). On aggregate, they contributed more than 2.000.000km² of arable land as well as newly-found social tranquillity.

0610-349 on Wednesday, 23.08.2023, 14:15-15:45

Unitobler – F-113

Limbic capitalism, environments and the modern world, c. 1750 to c. 1925 (H)

Organiser:

James Mills, University of Strathclyde, United Kingdom

Chair:

William Gervase Clarence-Smith, SOAS University of London, United Kingdom (V)

Abstract:

Does «limbic capitalism» have an environmental history? This panel will explore David Courtwright's ideas, that the taste of recent and contemporary societies for psychoactive substances has driven capitalism and modernity, in the contexts of ecologies and environments. Questions include; What have been the impacts and consequences for ecologies and environments of meeting the demand driven by these tastes? Have ecologies and environments enabled those living within them to evade efforts by outside groups to control or regulate those commodities? Is there a relationship between the boom and bust of trading systems in psychoactive goods and environmental factors or precarities? How far have the capacities or properties of ecologies shaped products and affected tastes for these goods? In tackling such questions the panel promises fresh engagements with David Courtwright's ideas, and new perspectives on the environmental histories of regions around the world where mood-altering commodities have been produced. The panel will draw on case studies from Central Africa, South Asia, Korea, Taiwan and Japan, and the discussion will provide the opportunity to make links and comparisons between these places, and beyond.

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Paper 1:

Judith Vitale, University of Zurich, Switzerland

The economy and ecology of poppies in early modern and modern Japan

When we think of medicinal plants, we often imagine wild plants or plants from the kitchen garden. This overlooks the fact that medicinal plants were not exempt from integration into mass commodity chains. In the late nineteenth and early twentieth centuries, the expansion of the pharmaceutical sector encouraged the cultivation of medicinal plants, such as chrysanthemums, safflower, and opium poppies. The Japanese archipelago, with its wide climatic range, soil characteristics, and mountainous geography that precluded large-scale agriculture but provided skilled, cheap labour in poor rural areas offered ideal conditions for the cultivation of medicinal plants. This paper explores the early history of opium poppy in Japan, its rise to a mass consumer product and its prohibition under occupation authorities after the Second World War. It thereby considers the economic and ecological consequences of the cultivation of poppy on local

environments and whether the perception of opium as a dangerous but lucrative drug in the early twentieth century influenced the life of producing small holders in Japan.

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Paper 2:

Chris Duvall, University of New Mexico, Albuquerque, USA

Cannabis, trypanosomiasis, and the ecologies of capitalism in nineteenth-century Central Africa

African trypanosomiasis, or sleeping sickness, flared in western Central Africa near the end of the transatlantic slave trade (1830s-1840s), and again in the early years of formal colonialism (1890s-1900s). These epidemics were consequences of the social-ecological disruption produced by expanding global capitalism. An overlooked aspect of the historical medical literature is the idea that cannabis drug use causes trypanosomiasis. This idea, which was common knowledge in western Central Africa between 1860-1910, arose from two conditions. First, the expanding biogeography of the trypanosome pathogen paralleled the range expansion of psychoactive cannabis, other weedy plants, and pestilent insects. This transatlantic range expansion tracked slave-shipping routes within and from Central Africa. Second, the parallel biogeographies existed because cannabis drug use, like sleeping sickness, was symptomatic of social-ecological disruption. Cannabis was a subsistence pharmaceutical for workers in exploitative labor regimes, who faced greatly elevated disease risks due to poor diet, inadequate shelter, and lack of autonomy. In this role, cannabis had ambivalent political-economic effects. It served the interests of employers by enhancing workers' performance, yet also served the interests of workers by facilitating resistance to authority. Over time, colonial authorities increasingly noted the latter effect and blamed cannabis for labour problems ranging from insubordination to sickness. Colonial authorities particularly drew the specious conclusion that cannabis smoking caused trypanosomiasis; this notion was a key impetus for initial drug-control laws in the region. The environmental history of cannabis validates current epidemiological theory that drug use is more a product of social structure than of individual behaviour.

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Paper 3:

Jaewoong Jeon, New York University, USA

Sweet Returns: Sugar Capitalism and its Ecological Impacts in East Asia, c. 1894 to c. 1975

An addictive commodity powered Japanese imperialism: sugar. A cheap source of calories and a novel experience for many East Asian consumers, sugar became a lucrative product. The growth of trade in sugar in East Asia was enabled by, and paid for, Japanese imperial expansion. But what was the impact of this period of rapid expansion on colonised environments? By the late 1930s sugar plantations covered almost 170,000 hectares, a fifth of Taiwan's farmland. Cane was grown in a range of ecologies, from Linkou in the north to Hengchuan at the southern tip, on the east coast as well as throughout the western lowlands. But efforts to establish sugar cultivation were almost entirely abandoned in Korea by the 1920s. This paper traces the links between Japanese colonialism, capitalism, and East Asian commerce in sugar, and begins to recover the environmental history that lies behind it. It also considers the post-colonial legacies of sugar in Taiwan and Korea where production remained an important source of capital well into the post-colonial period.

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Paper 4:

James Mills, University of Strathclyde, United Kingdom

South Asia's Lost Cocaine? Coca leaf and colonial environments in India and Ceylon (Sri Lanka), c. 1870 to 1894

Doctors and officials in Britain's South Asian colonies were quick to spot the potential of cocaine. Carl Koller's influential experiments with the substance in Vienna were first reported in print in October 1884 and yet by December it was already being used in medical practice in Indore. Further experiments with it followed early in 1885, and by the end of the year druggists across the country were supplying the growing local market for the drug. As the 1880s proceeded it was put to an increasing range of uses, within colonial hospitals and clinics but also beyond their boundaries. Almost as quick to respond to the appearance of cocaine in south Asia were British officials and others involved in the colonial economy. This paper explores their efforts to establish the coca plant as a crop and to establish a processing capability to produce South Asian cocaine for the global market. Previous explanations have tended to focus on the competing strains of the coca plant and the environmental difficulties of establishing them in local ecologies. However, this paper examines the more complex forces driving the decisions that meant that the British colonisers lost their early advantage and failed to commit to cocaine production, leaving the path open for the better-known Dutch operation in Java.

0611-318 on Wednesday, 23.08.2023, 14:15-15:45

Unitobler – F-121

Going Digital? Environmental History 2.0 – approaches, tools, and challenges

Different World Session: History Café

Organiser:

Ute Hasenöhrl, University of Innsbruck, Austria

Chair:

Odinn Melsted, Maastricht University, The Netherlands

Abstract:

In recent years, historians have increasingly «gone digital», presenting their research and findings through digital media, such as blogs or virtual exhibitions, exploring - and sometimes also creating - digitized sources, reconstructing the internet as a source and an archive of itself, utilizing digital tools and methods (from automated transcription and annotations/tagging, to GIS mapping, linguistic and network analysis, cliometrics, or digital storytelling), and employing the digital world for teaching and public outreach. The corona pandemic has accelerated this process, forcing historians to look for alternatives in times of closed archives and classrooms. As a result, some have literally turned into «programming historians», aiming at taking historiography one step further, to create something different than could be made using solely analog tools. Others have remained skeptical, both of the memory politics behind choices of digitization (and their often highly selective accessibility) and the obscure character of many (commercial) products as digital «black boxes» that turn their users into mere consumers of digital content.

Utilizing the collaborative and interactive «World Café» setting, this panel invites conference participants to share their experiences and discuss key issues of (environmental) history «going digital» at several rotating small tables: which challenges and potentials does the shift towards the digital realm pose for history in general, and for environmental history in particular? Which tools and methods are especially useful for historical research? (How) should we transfer and transform our e-learning experiences into the post-Covid world? And, last but not least: where do we go from here?

0612-247 on Wednesday, 23.08.2023, 14:15-15:45

Unitobler – F-122

The Catch – An Environmental History of Medieval European Fisheries (by Richard Hoffmann)

Organiser:

Gertrud Haidvogl, BOKU University of Natural Resources and Life Sciences Vienna, Austria

Chairs:

Gertrud Haidvogl, BOKU University of Natural Resources and Life Sciences Vienna, Austria

Verena Winiwarter, Austrian Academy of Sciences, Austria

Presenters of the Roundtable:

Inês Amorim, University of Porto, Portugal

Ellen Arnold, University of Stavanger, Norway

Bo Poulsen, Aalborg University, Denmark

Michael Zeheter, University of Trier, Germany

How were local fish stocks and specific fishing practices linked in different regions of medieval Europe? How did high medieval demographic and economic expansion affect fisheries, fish consumption and fish markets, and ultimately local fish and their habitats? And what parallels can be drawn between medieval and contemporary fish shortage. Can we learn from medieval practices about solution strategies for the present?

«The Catch. An Environmental History of European Medieval Fisheries», the latest oeuvre by Richard Hoffmann answers these questions and many more. Richard Hoffmann is certainly THE expert on European fisheries in the Middle Ages. His knowledge is based on an extensive body of historical sources from medieval institutions in much of Europe. He combines these with archaeological and archeozoological, and a great many scientific data from the paleo-sciences to climate and ecology. The comprehensive examination of this material over a long period of his scholarly career enables Richard Hoffmann to write a profound environmental history of medieval European fisheries in the best sense of the word. Fisheries are not only embedded in the social and economic context, but also in the natural sphere in which the actual object of the 'catch' - the various fish and fish species - live and thrive.

In this roundtable, Ellen Arnold, Inês Amorim, Bo Poulsen, and Mathias Zeheter will discuss this seminal book from their respective professional perspective.

0613-495 on Wednesday, 23.08.2023, 14:15-15:45

Unitobler – F-123

Introduction to Science for Policy: European perspectives

Organiser:

EnvHist4P

Chairs:

Adam Izdebski, Max Planck Institute of Geoanthropology, Germany

Cecilia Flocco, Leibniz Institute DSMZ – German Collection of Microorganisms and Cell Cultures, Germany

Presenters Workshop:

Chloe Hill, European Geosciences Union, Germany

Raphael Bucher, Federal Office for the Environment FOEN, Switzerland

During the workshop, ESEH members will have further opportunity to meet and discuss with the plenary panelists Chloe Hill and Raphael Bucher. Each of them will present a short presentation on engaging with policy and political institutions in the European context - at the EU and governmental level - followed by Q&As

0614 on Wednesday, 23.08.2023, 14:15-18:00

Swiss Alpine Museum

Mini workshop in the Swiss Alpine Museum: Exhibiting mountains

Organiser:

Swiss Alpine Museum, Switzerland

Chair:

Beat Hächler, Swiss Alpine Museum, Switzerland

Abstract:

The Swiss Alpine Museum stands in the middle of the present. Its topics are wide-ranging and close to the public: identity, mobility, spatial development, tourism, climate change, the Alps between tradition and innovation. The Alpine Museum makes difficult things understandable. It points out, questions, contradicts, touches, irritates and provokes. It also makes slow changes visible and directs the view forward. The focus is always on the acting human being. The Swiss Alpine Museum is a platform for dialogue and orientation. Its historical collection (mountain photography, cartography, alpinism) is part of this task.

The Swiss Alpine Museum is committed to a diversity of voices and integrates them into its projects. It works together with experts from various social fields and combines cultural and natural science disciplines to create a holistic view. It understands the Alpine region across borders from Slovenia to France and thinks globally when it comes to the relationship between people and the mountains. A network of local museums in the Swiss Alpine region also benefits from its know-how.

The Swiss Alpine Museum appeals to a broad public with its range of events and educational activities and invites them to participate actively: As everyday experts, visitors' opinions are sought. The presentation of the Alpine Museum's topics is up to date. This earned the museum a nomination for the European Museum Prize in 2013 and the «Prix Expo» of the Swiss Academy of Natural Sciences in 2017. In 2023, the exhibition «Let's Talk about Mountains. A filmic Approach to North Korea» was shortlisted as «International Exhibition of the Year» in the British Museums and Heritage Awards.

The mini workshop invites the participants to get to know the multifarious topics and approaches of the Swiss Alpine Museum. In the first part, the scientific staff gives an insight in the concept of selected exhibitions in the past. In the second part, a visit of the current exhibitions will look behind the scenes and focus on the making of and the didactic concept.

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Paper 1:

Barbara Keller, Swiss Alpine Museum, Switzerland

«Our water» («Wasser unser») – An Exhibition on the Past, Present and Future of Water in the Alps (2016-2018)

Water is energy, life, a daily constant, an asset. Water is simply there – it shapes and determines our existence. We have a fixed idea in our heads of Switzerland as the «Alpine reservoir» of Europe, but this is

threatened by recurrent sweltering summers and snowless winters. Societal development and climate change are also factors that will affect the availability of our water.

«Our Water» ventures a look into the future while making the link between research and fiction. Starting from the current scientific standpoint, four contemporary authors have come up with six models for our future existence with water. The one theme they all share: people talking about their everyday lives in the year 2051. We hear them speak about a control chip for monitoring personal water usage, for example, and a mega ski resort high in the mountains. By playfully exploring what might just happen, "Our Water" calls into question our present-day relationship to water.

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Paper 2:

Beat Hächler, Swiss Alpine Museum, Switzerland

Let's Talk about Mountains. A Filmic Approach to North Korea

What comes to your mind when you hear «North Korea»? – A film team from the Swiss Alpine Museum toured the mountainous Korean peninsula during the brief thaw in relations between the two Koreas (2018/19). The team climbed summits with trekking groups, visited school classes, watched artists at work, travelled to farms in the hilly provinces and stopped off at North Korea's largest ski resort.

The micro-stories captured on film tell of an everyday existence that you won't see on the TV news. Forty interviews give a voice to people who are at risk of disappearing behind the political system and our own images of them. Some of these encounters are spontaneous, while others were pre-arranged. Although touching in nature, they also challenge us to question the meaning of what they show if we want to look below the surface. The exhibition will be accompanied by a magazine which explores the content of the film images in greater detail and categorizes them.

«Let's Talk about Mountains» invites visitors to take a closer look. But what exactly is the meaning of the things they see? The accompanying magazine places the moving images in context and presents the locations of the exhibition in a lavishly illustrated essay. Featuring contributions from international authors on issues such as history, North Korean schools, art, and freedom.

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Paper 3:

Rebecca Etter, Swiss Alpine Museum, Switzerland

Lost and Found Memories Office, № 1: Skiing – Bring Life to our Collection! (2020-2021)

In 2019, the Swiss Alpine Museum launched a call to all skiing enthusiasts: Whether you're a slope hog, a fair-weather skier or a couch potato, whether you dusted off the gold medal or the consolation prize at ski camp: Visit us in the lost property for memories, discover the stories behind the things and help us fill in the gaps. In the new exhibition space, ski objects and stories from visitors take centre stage.

The «Lost and Found Memories Office» puts the Swiss Alpine Museum's collection in the spotlight. But no collection is perfect: to fill our most important gaps, the museum needs its clients. So, the museum was looking for your material and wanted to know what visitors experienced with it in the mountains. Since an initial appeal in December 2019, over 250 people have handed in personal ski material with a story to the lost property office.

Much of the lost property content is available online today: On the lost property website (in German), you can browse through photographs and stories or search specifically by geographical and chronological categories or by topics such as adventure, freeride, backstage, accident, ski camp. With the Lost and Found for Memories, an additional exhibition space in the Swiss Alpine Museum has been opened. The themes change regularly and are explored in greater depth with events.

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Guided Tour:

Nathalie Lütscher, Barbara Keller, Rebecca Etter, Swiss Alpine Museum, Switzerland

A visit of the current exhibitions «Heimat. Tracing the Story of Mitholz» (a project linking the Swiss Alpine Museum and the people in place) and «Lost and Found Memories Office, № 2 Women on the Mountain» (a citizen science project)

To many people, the meaning of Heimat only becomes clear when they lose it. Since 25 February 2020, the residents of the village of Mitholz in the Bernese Oberland have run the gamut of emotions from helplessness to optimism: that was the date when they were told they would have to leave their village in 2030 for ten years to make way for a clean-up operation in the munitions depot. After World War II, there was a catastrophic explosion in the depot that destroyed most of the houses in the village and claimed the lives of nine people. While munitions were scattered around the entire village, a large amount remains in the shaft – and is still live.

The people of Mitholz and the Swiss Alpine Museum have come together to explore the meaning of Heimat and to address the uncertain times that lie ahead. It is a story that can be traced from the night of the explosion in 1947 right through to the future. The exhibition achieves this in various ways: providing visitors with information, engaging their senses, and immersing them in installations. It leads people to the Mitholz Archive, which appeals to all the senses, and takes them into a walk-in music installation, the «Farewell Choir». In addition to presenting individual perspectives, the exhibition deals with the measurable and controllable technical processes planned for the clear-up operation. The «evaluation of variants» for dealing with the munitions has been reworked and illustrated so that it can be explored interactively: Clear away the munitions, cover them up, create a flood, or trigger an explosion? Some very big questions come into focus in Mitholz: How do memories affect who we are? As individuals, as a society? What risks do we want to take? What does Heimat mean? Visitors to the exhibition will be asked these questions directly, and one thing becomes abundantly clear: Mitholz concerns us all.

«Lost and Found for Memories, № 2: Women on the Mountains» is the second exhibition of this kind. The general public is invited to contribute with objects, memories and anything else related to the topic. It contributes to the often neglected field of gender/women's history and mountaineering both on a competitive and popular sport level. Women have always climbed mountains with the same enthusiasm, virtuosity and fearlessness as men. However, for a long time this went largely unnoticed and women's accounts were hardly documented. The «Lost and Found Memories Office» wants to change this: Since December 2021, the participatory project focuses on around forty «Women on the Mountain» from the Alpine Museum's collection. Additionally, it aims to offer a platform for the mountain memories of today's female alpinists and climbers, be it in the form of a travelogue or a summit selfie – we are interested in what women experience, think and achieve in the mountains.

0615-494 on Wednesday, 23.08.2023, 15:45-16:30

Restaurant Ali Baba

Cafè de l'Environnement II

Different World Session: History Café

Organiser:

Daniel Marc Segesser, University of Bern, Switzerland

Abstract:

Are you – a doctoral or postdoctoral researcher – keen to present your research in whatever aspect of

environmental history and to get to know new colleagues in field? The Café de l'Environment is just the place for this. Here you can get into contact with others, present your research questions, get a short feedback to the presentation of your ideas, projects, etc. and you can give feedback to others. All this will be done in a very informal atmosphere, with coffee and something small on top at no extra cost.

All you need to bring, is your ideas, projects, questions etc. in a form that takes no longer than five minutes to present, an openness to discuss somebody else's ideas, projects and questions, and if you have friends and colleagues, who are also eager to discuss new ideas, projects or questions on environmental history. The only thing that remains is: Welcome to the Café de l'Environment.

If you are a professor or settled researcher, you are of course also welcome to the Café de l'Environment, your role will just be slightly different, as you will be asked just to give encouraging feedback to those, who are presenting their ideas, projects or questions.

15:45-16:30

Mensa/Entrance Area UniS & Unitobler

Coffee Break

City Trip on Wednesday, 23.08.2023, 16:00-18:00

City Trip C

The water supply and sewage system of Bern in pre-modern times

Guide:

Armand Baeriswyl, Archaeological Service of the Canton of Bern, Switzerland

A guided tour of the famous figurative fountains and the sewage system of the city of Bern in the pre-modern era.

0700-427 on Wednesday, 23.08.2023, 16:30-18:00

UniS – S 003

Time Matters in the Anthropocene 2: Time Embodied

Organiser:

Leonoor Zuiderveen Borgesius, University of Oslo, Norway

Chair:

Leonoor Zuiderveen Borgesius, University of Oslo, Norway

Abstract:

Across disciplines, scholars are exploring the human impact on planetary processes, framed in a geological time scale, and thinking about the complex way in which time and temporality has been conceptualized and experienced. Whereas environmental humanities scholars have been working on the role that time and temporality play in, for example, extinction studies, historians have primarily been interested in what a

focus on time means in theoretical terms. Time, like space, however, is far from abstract. Its workings play a fundamental role in the way environments are shaped by scientific media and method, moderated through technology, infrastructure and art, experienced and embodied. The two panels we are proposing set out to explore the role that time plays in the formulation of ocean floor environments, taxidermic practices, extinction, manorial economies, geological speculations and environmental surveying and exploration. The panel aims to bridge the gap between theoretical work on time in the theory of history on the one hand, and empirical work on the production of environmental knowledge in environmental history on the other.

As the last decade's deliberations on the Anthropocene have shown, questions of how time is configured, in an era of rapid planetary change, are central to scholars across disciplinary boundaries. In these panels, we seek to explore how environmental history can critically intervene in these discussions by providing historical texture to abstract questions.

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Paper 1:

Alice Would, University of Bristol, United Kingdom

The Present of the Past: Craft, Time and the Creation of Animal Specimens

In this paper, I suggest how engagement with an idea of embodied time has much to offer to environmental historians. Using the case study of the creation of taxidermy specimens in the long nineteenth century, in a British colonial context, I argue that attention to the «active present» as experienced through craft is revealing of the significant role temporalities play in constructing the past and present.

In the nineteenth and early twentieth centuries, taxidermy was undertaken in an attempt to suspend or 'freeze' animal remains through a meeting of human hand, tacit knowledge, chemical preservatives and tools. It was part of the wider history of exploitation and environmental extraction. Animal lives (and lifetimes) were ended through museum collection, as part of the wider colonial mission to secure bits of nature – an effort that contributed to the sixth mass extinction event.

Nevertheless, the «afterlives» of these creatures continued, and their bodies were still frequently drawn into dynamic temporal processes, including craft. Using British museum records and taxidermy handbooks (1814-1920), I will suggest how taxidermy was a time of intensive activity – an «active present». It is always difficult to imagine the present of the past, and, as Matthew Champion has suggested, historians often «colonize» the past with «fantasies of static time». However, if we are to understand our current troubled times, it is critical that environmental historians conceptualise and think about time as it was experienced. I suggest that grounding these ideas in the material changes to both human and more-than-human bodies can help us to grapple with the significance of time.

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Paper 2:

Ada Arendt, University of Oslo, Norway

Temporality of a fish pond

How did the temporalities of an early modern Silesian manorial estate look like? What interdependencies and power relations does the management of a fishpond reveal? Do practices of care generate a specific temporality? In my paper, I propose a reconstruction of a multidimensional, more-than-human temporal architecture of one «household», a rural oikos, where a network of actors worked together to ensure food security and a fragile state of sustainable micro economy. Using almanac annotations of an estate administrator, local land plot maps, a very popular agronomic reference book (Haur 1693) and two treaties on the management of fishponds (Strumieński 1573; Strojnowski 1609), I will discuss a case study of a late 17th century estate at the Polish-Silesian borderlands, where fishponds served as the key synchronisers for a complex assemblage of more-than-human actors, determining a polyphonic, cyclical temporality of caring agencies.

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Paper 3:

Milo Newman, University of Bristol, United Kingdom

Auk eggs and incubation: Creatively marking time amidst the temporalities of extinction

«'and whan the King louped doon aff the shelve into the sea, there's whare he shotten him,' [he exclaimed] pointing exultantly to the water, about four boat-lengths off the cliff and the entrance of the nearest cave».

This extract from the journal of Scottish ornithologist John Alexander Harvie-Brown describes not an instance of sea-based regicide, but the death of the last great auk in Orkney in 1813. The great auk—a large, puffin-like flightless seabird—is now extinct. Its disappearance acts as an early outlier of the host of anthropogenically-driven extinctions that mark the 'Anthropocene' as an age of increasing loneliness (Wilson, 2013).

Research in extinction studies highlights how such exterminating processes unravel «sequences of generational time» (Bastian, 2017, p.151; van Dooren, 2014; Rose, 2012). In Orkney now, 209 years after the auks' disappearance, this collapse of generational time is continuing as many seabird populations fall away into catastrophic decline. Those birds that still return on their annual migrations now often no-longer choose to breed due to the effort involved in rearing chicks. These populations remain as ghosts (van Dooren, 2017), waiting out a seemingly inevitable local extinction amidst the ruins of a collapsing ecological niche.

This paper presents a piece of creative, practice-based research responding to these refrains of past and present extinction, place, and disrupted intergenerational becoming. Presenting the egg as a lively vessel linking one generation of avian life to the next, I extend the sensory (and sensitive) architecture of the human-being into the patient durations of incubation through artistic process, exploring the textures of loss amidst the temporalities of extinction.

0701-131 on Wednesday, 23.08.2023, 16:30-18:00

UniS – A 022

How Clean Is White Coal? Historical Perspectives on the Alpine Damscape, 1918-1950 (H)

Organiser:

Sebastian De Pretto, University of Bern, Switzerland

Chair:

Patrick Kupper, University of Innsbruck, Austria

Abstract:

Hydroelectricity has profoundly changed the Alpine territory since the end of the 19th century. Run-of-river power plants and reservoirs first gave rise to industrial sites in remote Alpine valleys, before far-reaching distribution networks transported electricity over long distances connecting the economic metropolises of the plains to peripheral mountain regions. These newly built infrastructures not only connected the Alps to perialpine production sites and consumer markets but also changed the natural habitat of the people living in the catchment areas. Where reservoirs did not flood entire inhabited valleys, the diverted or impounded streams often affected agricultural commons, water resource management and riverine biodiversity. The three papers in this panel examine the multi-faceted history of Alpine reservoir construction, combining

environmental with technological, social, and cultural history approaches. The session highlights how the Alpine biosphere developed into a productive damscape through industrial hydroelectric power between 1918 and 1950 and what this process brought to the people living there. In which historical circumstances did this energy transformation unfold and what technologies and infrastructures got connected to the new reservoirs? How did the displacement of Alpine communities caused by hydropower development proceed in terms of power politics, and who was given decision-making authority and agency within a particular legal system? Who documented this process through which media, and how did the resulting records generate local-bound memory cultures? Our aim is to explore such questions and discuss them within the broader context of environmental history.

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Paper 1:

Marc Landry, University of New Orleans, USA (V)

Exploiting Nature's Gifts: Rail Electrification and the Damming of Alpine Lakes in the First Austrian Republic

Environmental historians have long offered analyses of hydroelectric dam-building and the impacts of reservoirs. Less well understood is the phenomenon of converting existing «natural» lakes into power reservoirs. Tracing the history of hydropower development in the Alps reveals that up until the mid-1920s, Europeans overwhelmingly opted to take advantage of existing lakes to create hydraulic storage. In this paper I seek to explore this phenomenon in the context of the First Austrian Republic. From 1918 until the Great Depression, the new state completed an ambitious program of electrifying its state-owned railways. Much of the energy for this undertaking came from the transformation of Alpine lakes into energy storage reservoirs. Based upon files from contemporary energy trade journals, and the Wasser- und Elektrizitätswirtschaftsam in Vienna, I will analyse the connection between lakes and electrified trains. I will also investigate the peculiarities of the discourse surrounding the exploitation of these existing bodies of water. In answering these questions, I hope to shed light on a historical episode where a state many considered to be unviable accomplished a considerable technological and economic feat. Understanding how transport in Austria was «decarbonized» might also be instructive in current debates.

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Paper 2:

Sebastian De Pretto, University of Bern, Switzerland

Flooded Peripheries: Dam Induced Resettlements in Switzerland and Italy between the two World Wars

After 1920, countries along the Alpine arch without sufficient coal nor oil increased their energy reserves with hydropower on an unprecedented scale. The First World War had proven the fragility of the international energy trade and thus their need for an independent resource supply. To increase domestic hydropower capacities, the rivers and impounded natural lakes were no longer sufficient, prompting state-owned and private-sector energy consortia to build the first big storage lakes with gravity dams. Such artificial basins emerged not only in uncultivated mountain valleys, but also flooded inhabited land and, therefore, led to evictions and displacements of entire villages. Based on two case studies from Italy and Switzerland, the paper shows how resettlements during the interwar years unfolded socio-politically and how actors such as state authorities, transnational energy companies and single villages partook more or less freely in constructing the Alpine damscape. Regarding Switzerland, the paper examines the construction of the Sihl-See that displaced the inhabitants of the Sihl plateau for the electrification of the Swiss Federal Railways between 1932 and 1937. On Italy, the paper discusses the Lago di Morasco in the province of Verbano-Cusio-Ossola, which the Milanese energy company Edison also built in the 1930s, flooding the hamlet of Muraschg. The sources include project documents on reservoir construction and resettlements, concession protocols and contracts, as well as regional newspaper articles.

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Paper 3:

Anna Koch, University College London, United Kingdom

A Symbol of Modernization, a Reminder of Loss: Photographic Representations of Graun and the Reschensee

In 1950 the South Tyrolean village of Graun (Curon) was flooded to create a water reservoir and dam to provide Northern Italy with electricity. Only the church's belltower remained visible, sticking out of the artificially created lake. The flooding of the village was amply documented by locals, the local press, Italian news and the Montecatini concern. While the images depict the same event, they tell distinct stories about what happened in Graun. The photographs taken on behalf of the Montecatini concern show the construction of a dam of monumental size, celebrating an engineering achievement, the modernization of the region and human ability to control nature with technology. The photographs taken by villagers and those published in the local press tell a different story, highlighting the destruction and loss of home.

Yet time as well as efforts to represent the place and its story to outsiders turned the symbol of loss and destruction into a place of fascination and interest. Mysterious, magical depictions of the belltower standing in the lake dominate most recent representations of Graun. Locating the flooding of Graun both within a larger transnational context of expanding hydroelectricity and within the specific political context of the South Tyrolean borderland region, this paper examines the distinct representations of the flooded village and the lake – as emblems of loss, symbols of modernization, and tourist attractions.

0702-268 on Wednesday, 23.08.2023, 16:30-18:00

UniS – A-122

Teaching the History of Climate Change in the Twenty-First Century

Organiser:

Devin Smart, West Virginia University, Morgantown, USA

Chair:

Debjani Bhattacharyya, University of Zurich, Switzerland

Abstract:

What role does the discipline of history have in educating university students about the challenge of climate change in the twenty-first century? What can the history classroom contribute to a pedagogical terrain that is today more regularly covered by climatologists, geographers, and political scientists? Finally, what are the different approaches instructors can take to teaching the history of climate change?

Presenters on this panel will provide answers to these questions based on their experience as teachers and historians. Indeed, given that climate change mitigation is as much a political and moral challenge, as opposed to a narrowly technical one, this panel argues that the humanistic tools of history are essential to educating current and future generations about how to confront the climate crisis. However, today, few history departments take an active role in the university curricula that students rely on to learn about climate change. This panel, though, provides concrete examples of the way this topic can become part of the coursework and degrees that history departments offer by drawing on the strengths of the discipline and incorporating interdisciplinary perspectives from the natural sciences, political economy, literature, and other relevant frameworks. Ultimately, the goal is for the three papers to serve as a starting point for a wider conversation about the pedagogy of climate change between the panelists and the audience of fellow historians, inspiring action to make history a greater part of how this subject is taught in university settings.

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Paper 1:

Devin Smart, West Virginia University, Morgantown, USA

Climate Change and the Global Environmental History of Capitalism: Designing a Syllabus on the Anthropocene

This paper explores how the environmental history of global capitalism, focusing especially on extractive industries, is one way to organize a course on the history of climate change. It allows students to understand how the relationship between the economy and the natural world changed during and since the Industrial Revolution. The approach also encourages them to face clearly the contradictions generated by the exponential economic growth that has come with industrialization. On the one hand, students learn how the harnessing of fossil fuels through the mechanization of production and transportation has led to unprecedented increases in both wealth and living standards since 1800. Conversely, they also see how each incremental uptick in economic activity required a concomitant increase in the extraction of natural resources for fuel and raw materials. Moreover, drawing on environmental justice concepts such as «sacrifice zones», the course stresses how the benefits of this growth and the consequences of corresponding environmental degradation have been distributed unevenly both within and between societies and world regions. For students, this reveals a logic of extraction, production, and consumption that is at the core of modern economic life. From there, they can better understand the origins of climate change, produced by a global political economy of exponential economic expansion, and extraction, powered by carbon-emitting fossil fuels. This history sets the stage for the final third of the course that considers the present and future of climate change, and what economic and energy transformations are necessary for significant mitigation to occur.

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Paper 2:

Robert Roushail, University of Iowa, Iowa City, USA

Identity, Empire, and Climate Change in the Classroom

Keenly aware of the unfolding climate crisis, American undergraduate students are eager to engage with historical narratives that frame this predicament within larger histories of political and social inequality. On the first day of teaching an advanced undergraduate course on Global Environmental History at the University of Iowa, one student expressed to me, the instructor, their desire to approach the subject through an «anti-colonial lens». Meaning, I would learn that they hoped the course would attend to how contemporary debates over the roots of climate change emerge from histories of inequality, power, and difference. This was met with enthusiastic affirmations from their classmates, most of whom have demonstrated a familiarity with critical anti-imperial approaches to interpreting history, although not stated as such. Surely unbeknownst to them, this comment engaged a scholarly debate over how to scale empire within debates over the beginnings of the «Anthropocene».

This presentation aims to investigate how analytical approaches pioneered by critical historians of empire that have foregrounded imperial formulations of race and gender can be translated into contemporary classroom approaches to climate change. From the scaffolding of a syllabus to the selection of primary and secondary sources, to the use of novels, poems, and songs, this presentation attempts to show how environmental history can contribute to on-going conversations regarding race, gender, and the production of social difference on a global scale.

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Paper 3:

Joseph D. Martin, Durham University, United Kingdom

Teaching the History of Climate Change through Science Fiction

Since 2013, I have been teaching a course entitled «Engineering Armageddon: Visions of Scientific Apocalypse», which traces cultural anxieties rooted in scientific and technological change through novels, setting them in their scientific and social contexts. Climate anxiety is a central theme, from the frozen arctic in Mary Shelley's Frankenstein to the social ills accompanying climate change in Octavia Butler's Parable of the Sower and Margaret Atwood's Oryx and Crake. Discussing these texts in context emphasises the numerous connections between climate and other aspects of human life and provides the basis for discussions of the relationship between climate change and questions of scientific responsibility, notions of progress, and attitudes toward the natural world.

This talk will reflect on fiction as a tool for instilling historical awareness of climate change, and, more broadly, of human attitudes toward nature. I will suggest that the discussion of fictional worlds, and the factors that determine how contemporary audiences make sense of them, can be a flexible tool for discussing climate change in our non-fictional world, in part because they permit an oblique approach to topics that can be fraught, difficult, and emotionally charged. I will also discuss the trends and changes in student reactions to visions of climate apocalypse that I have observed over a decade of teaching the course.

0704-C12 on Wednesday, 23.08.2023, 16:30-18:00

Unitobler – F 005

Contradictions of North American natures

Organiser:

ESEH Programme Committee

Chair:

Thomas Michael Lekan, University of South Carolina, Columbia SC, USA

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Paper 1:

Brenden W. Rensink, Charles Redd Center for Western Studies, Brigham Young University, Provo UT, USA

The Storied Past, Fraught Present, and Uncertain Future of Wilderness Experience in the Mountains and Deserts of the American West

Much as the Alps-related «alpine» has become synonymous with «mountainous», large swaths of the American West have become associated in the minds of residents and outsiders as synonymous with rugged and remote mountain landscapes. Highly mythologized for centuries, people from surrounding plains or other far-off non-mountainous regions have imagined the mountains and deserts of the American West as landscapes where they can engage in unique experiences, potentially unattainable elsewhere. It has drawn individuals seeking adventure, solitude, personal discovery, fame for daring new feats, and so forth. Those engaged in these activities have done so in various forms, from activities related to commerce and trade, to tourism and recreation.

This paper will trace a number of unique types of «wilderness» experiences for which people have travelled to remote and rugged Western landscapes and answer not only what they came for, but why they chose these particular locales. This is especially pertinent when considering those who travelled from afar and from regions that had their own mountain landscapes. What was unique about the American West? These histories and analysis will be leveraged to comment on the current state of Western «wilderness», and potential futures it holds for those still seeking it for these unique experiences. If individuals looked past Plains and towards Western American mountains for wilderness experiences in centuries past, have the staggering economic development, demographic growth, tourism booms, and changing climate

diminished the region's draw? Can Western American mountains or deserts still provide these historic experiences?

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Paper 2:

Rebecca Retzlaff, Auburn University, USA

The Impact of Past Park Segregation on Park Space Today: The Case of Alabama

The research question addressed in this paper is: How did segregation of state parks in Alabama during the Jim Crow era until the end of the civil rights movement affect eventual development of state parks in the state?

Development of the Alabama state parks began in 1927, when the Alabama Legislature passed the State Land Act, creating the Bureau of Parks and Recreation. In 1930, the Bureau purchased the land for Mt. Cheaha State Park, the tallest point in the state. In just a few years, the bureau established eleven more parks. All of the parks were whites-only, like all other public facilities in the state.

In 1952, the Bureau purchased land for Joe Wheeler State Park for African Americans. In 1957 the Alabama legislature appropriated funds for two new state parks for African Americans, but it later reallocated the funds elsewhere and the parks were never created. Until the end of legal segregation in the 1960s, Alabama had just one state park for African Americans.

Segregated state park development occurred when most of today's largest parks were created. Today, the legacy of segregation in the state has left uneven park space, with most of the state parks located on the east side of the state. The parks in the Black Belt, the area historically home to the largest and most historically marginalized African American populations in Alabama, still have very few parks today.

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Paper 3:

Maude Flamand-Hubert, Université Laval, Canada

Bounding Freedom: Land Surveying in Lower Canada

Surveying — administrative and symbolic act of possession of the territory — is a founding theme of American environmental history (Cronon, 1983). In Lower Canada (current province of Quebec, Canada) surveying played a significant role in the 19th century, because it also marked the transition between two land administration regimes, between the seigneurial regime of French inspiration and the cantonal system of English inspiration. Surveying is an act that is both material, by taking objectifying data from the world, and cultural, by the motives underlying its intentions. Not only does it mark and divide the land, but it also establishes new forms of relationship to nature through the descriptions of vegetation and topography that are made by surveyors, travelling through mountains and valleys. The study of these notebooks, in relation to the transition of the legal regime under way in Lower Canada, offers an unprecedented look at the negotiations at work between the different Western regimes of apprehension and normalization of nature. Its implementation in a context where customs of the French Old Regime and British and American liberal ideas meet, giving shape to original cohabitations. This contact with the territory, which combines exploration with appropriation, will give shape to discourses that will take lasting roots in collective representations and imaginary. Particularly, surveying transformed the notion of freedom, associated with large spaces, it became confined to a few privatized acres. The demarcation of the land more specifically redefines mobility practices, both for human and non-human populations living on the territory.

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Paper 4:

Vincent Geoffrey Bijman, Maastricht University, The Netherlands

The Sea Lamprey invasion in the Great Lakes, 1940s-1960s: On the science, management, and media representation of an invasive species in a polluted aquatic ecosystem

During the 1920s, a Sea Lamprey (*Petromyzon marinus*) was for the first time observed in the waters of Lake Erie, part of the Great Lakes. It was traditionally a coastal predatory fish, that due to various canal extensions was able to move upstream and was regarded to have caused the destruction of the already pressured fishery economy. The dispersal of the Sea Lamprey drew a response from a coalition of scientists and civil servants from both the United States and Canada, who tried to understand the complex Sea Lamprey life cycle and invented technological solutions to control the invasion, such as weir trapping and poisoning. The Sea Lamprey became entangled in international postwar invasive species discourse and was represented as an intrusive 'other' that endangered the existing economy and the natural balance of the Great Lakes. This paper draws from various primary source materials, including committee hearing minutes, scientific reports and newspaper clippings to show how the creation of the invasive Sea Lamprey depended on situated knowledge production, management practices and environmental discourse that emphasized fish as an economical resource. Traditionally, the Sea Lamprey invasion has become regarded as a watershed moment in Great Lakes history, causing the full decline of the fishery economy and catalyzing applied research and cross-border management. Less attention has been given to how animal agency, the imagination of the animal as an invasive predator and changing scientific and control practices informed the representation of the Sea Lamprey and resulted in a 'killable' fish.

0706-C02 on Wednesday, 23.08.2023, 16:30-18:00

Unitobler – F 021

Urban histories from mountain to sea

Organiser:

ESEH Programme Committee

Chair:

Katharine Anderson, York University, Canada

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Paper 1:

Kate Stevens, University of Waikato, New Zealand

Underwater life of the city: an oceanic and multispecies history of Suva, Fiji

This paper examines what an environmental history of a Pacific city might look like when refracted through water. Focus on Suva, I will explore the multiple, multispecies stories of the city's development from 1880 to 1930 through the various waters that flowed through and around the urban centre. What narratives emerge when we trace Suva's construction and life from a vantage point below the waterline of Nabukulou creek, the harbour housing colonial wharves, the surrounding mangroves and coral reefs?

With a longer history as an Indigenous Fijian/iTaukei settlement and a failed plantation landscape, Suva was rebuilt as the British colonial capital of Fiji from 1882. The multicultural city became a key node in trans-Pacific commercial and cultural webs through the late 19th and 20th century. However, beyond the well-studied centrality of the ocean and port in connecting Suva to global networks, I will argue that water and marine species were critical to the form and experience of urban life by the early 20th century. For example, engineers and labourers turned local coral and river sand in roading, reclaimed land and buildings to develop the town, while shipworms arriving on visiting ships stayed to rasp and wear away the wooden foundations of the city's submarine infrastructure. By taking a multispecies approach to Suva's

history, I aim to explore how histories of colonial environmental transformation in the Pacific are disrupted, diverted and refracted when traced from reef and river bed, and how this example might inform urban environmental histories more widely.

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Paper 2:

Alexis Vrignon, University of Orleans, France
Benjamin Furst, Université de Haute-Alsace, France

Between mountains and sea: environmental issues in the agglomeration of Papeete (1960-1990)

In contexts as constrained as islands, colonial settlements had to face many environmental challenges to endure. This is particularly true of mountains islands, where available space is scarce, and harder to adapt to expansion needs, even more so when settlements turn into cities.

Based on archival research and cartographic analysis, this communication will focus on the environmental challenges of the agglomeration of Papeete (French Polynesia) after the 1960s.

The choice of Polynesia as a new nuclear testing ground by French authorities in 1963 transformed Papeete and its neighbouring municipalities. Already a long-standing administrative center and a key commercial and logistics interface for the territory, it then experienced a strong economic and demographic growth and profound urban transformations. In the following decades, many Islanders settled in the agglomeration of Papeete, more than doubling its population in 20 years. The area became the showcase of a highly unequal consumer society, causing major environmental issues in a city stuck between mountains and sea, such as waste management, water pollution and road traffic.

In an area where orographic constraints (slopes, risk of erosion, etc.) are strong, the consequences of this development were aggravated by political and institutional factors. Indeed, the governance of the agglomeration has been fractured between the elected municipality of Papeete, dominated by antinuclear politicians, the military, and the governor's office, representing the French State, delaying the implementation of major environmental public policies. The convergence of these physical, economic and political factors led to environmental inequalities that still exist on this territory.

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Paper 3:

Maxime Decaudin, National University of Singapore, Singapore

Topographic anxieties: exploring the role of mountains in the colonization of Hong Kong, 1841-1941

This paper examines the historical agency of mountains in the British colonization of Hong Kong in the 19th and early 20th centuries. With its abrupt mountains directly falling into the sea, the Island of Hong Kong has been described as «a barren rock» and often held responsible for many of the difficulties in the colony's history. Using sources from travel literature, official reports, and personal correspondence, this paper will reveal the different roles played by mountains, from threats to opportunities. Even before colonization, the high peaks around the island of Hong Kong served as landmarks for European captains to navigate the unknown waters east of the Pearl River Delta and find their way to the port of Canton. In 1841, the topography of the Island and the lack of flat land for development immediately called in question the choice of Charles Elliot, the British plenipotentiary responsible for the cession of Hong Kong. When his contemporaries, mostly military personnel, first discovered the new acquisition, they described the mountainous landscapes as menacing and uninviting. While the unpromising aspect of the terrain seemed to predict the failure of the new colony, the microclimate at the top of its highest mountain, Peak Victoria, offered, according to 19th century colonial surgeon, a retreat to recover from the unsanitary environment of the city. Furthermore, the steepness of the hillsides along the shore accidentally provided

the filling material for land reclamation creating an unforeseen opportunity to finance the new colonial government through the monopolistic production of land.

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Paper 4:

Alessandro Antonello, Flinders University, Adelaide, Australia

Histories of cities and nearshore subtidal environments: a case study from Adelaide, an Australian city between sea and mountains

While they only take up about three percent of the earth's surface, cities are now home to the majority of humanity. Many of these cities sit on coasts; 24 of the 37 «megacities» are coastal. While many of them have storied ports or have undergone recent redevelopment of old waterfronts into new residential, business and entertainment districts, there is much less appreciation of their nearshore and subtidal environments as necessarily and intimately part of their histories and cultures. This paper aims to understand how cities interact with and think about their nearshore, subtidal environments through the experiences of the Australian city of Adelaide across the past century. Sitting on the urbanised plains between the Mount Lofty Ranges (a region of agricultural production) and the Gulf St Vincent, the presence of the city of Adelaide has led to significant changes in its nearshore environments, including changing sand deposition and natural transportation, causing the collapse of seagrass meadows, undermining nearby mangroves, and the submarine engineering and infrastructure of the main port. The paper will narrate several episodes of environmental change and policymaking, as well as longer and persistent policy challenges and research programs around how the city and its population sees, understands, or otherwise affects the nearshore, subtidal environments. More broadly, the paper will explore potential avenues of conceptualising the historical relationship of coastal cities and subtidal areas.

0707-405 on Wednesday, 23.08.2023, 16:30-18:00

Unitobler – F 022

Contested Territories: Transhistorical findings from the Hardt Forest, the Harz and the Tatra Mountains

Organiser:

Lisa Cronjäger, University of Basel, Switzerland

Chair:

Pavla Šimková, Ludwig Maximilian University Munich, Germany

Abstract:

In this panel, we investigate modes and conflicts of territorialization in three Central European regions. By focusing on the Hardt forest in the Rhine Valley close to the city of Basel, the highland area of the Harz in Central Germany and the Tatra Mountains in the Carpathian Arc, we aim at discussing the interplay of territorialized regulation of property and land use rights by landholders or state agencies, on the one hand, and the manoeuvring of the local population, on the other hand. The contributions show a broad range of survival tactics and everyday forms of resistance, bringing to the fore an entangled environmental and economic history of humans, animals, plants, waters, borders and landscapes.

The panel addresses three main questions: What role have the different landscape formations and land use practices played in the process of territorialization? What sources can attest to the silent and silenced histories that came along with the industrialization, exploitation and governmentalization of these regions? And how can site-specific findings contribute to a transhistorical environmental perspective that helps bridging the common pre-modern/modern divide?

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Paper 1:

Lisa Cronjäger, University of Basel, Switzerland

Mirjam Hähnle, German Historical Institute London, United Kingdom

Radical transformations? Conflicts and Socioeconomic Change in and Beyond the Basel Hardt Forest, 17th-20th Century

In the Hardt forest close to the river Rhine, the forest department of the city of Basel planned and executed a transformation at the end of the nineteenth century: from a coppice forest, in which pasture and other land use practices were allowed, to a timber forest that consists only of beech trees. A photo album from 1913 depicts and explains the so-called «radical transformation method». Numerous other sources from the State Archive of the City of Basel document the planning process: maps, protocols of assemblies, letters and criminal records among others.

In this paper, we trace the much longer history of this forest area with a focus on socioeconomic conflicts since the early modern period. In particular, we examine the development of industrial complexes in this area and the regulation of land use practices that served the subsistence economy of the people living in the parishes close to the Hardt forest. Interestingly, the etymology of the "Hardt Forest" alludes to common forest land and the pasture of goats, pigs and other animals within the forest. Various forest areas in German speaking regions bear the name Hardt forest or a modified version of this name until today (e.g. in Karlsruhe or Strasbourg). Ultimately, we reflect on the extent to which specific conflict constellations evident in and around the Hardt forests can be understood in a transhistorical and transregional perspective.

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Paper 2:

Anja Breljak, University of Potsdam & Brandenburg Center for Media Studies, Germany

Canary Lives: Bodies, Work and Dislocation in the Harz – A Case Study of Becoming Interspecific

This presentation collects evidence from the site of Sankt Andreasberg, a mining town in the Harz (Lower Saxony, Germany), where the socioecological transformation of this mountainous forest region coincided with a conflictuous interspecies' becoming. Though mining in Sankt Andreasberg was formative since the fifteenth century, transforming the mountains into a resource of metals and silver, the forest into a spruce timberland and the landscape into a water management facility, there lies a complementary and more silent environmental history of mining and migration. It is presumably with migrants coming from Tirol in need for mining jobs, that the canary – a bird originally from the Canary Islands – was brought to the Harz in the eighteenth century. From here, where a meticulous breeding culture evolved, the canary became the second economic foothold of miners families, sending hundreds of thousands «Harzer Roller» around the world and thus contributing to the preservation of extractive mining while installing infrastructures of dislocation.

This presentation traces the dislocation of the canary and its complementary role for preservation of mining in the Harz as a proposal for thinking through the interspecies' becoming of humans and birds along the political economy of industrial mining.

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Paper 3:

Bianca Hoenig, Regensburg, Germany

Owning the Mountains. Conflicting concepts of property in the Tatra Mountains

This paper investigates conflicts over the legitimate usage of the Tatras, the highest section of the Carpathian Arc, today part of Poland and Slovakia. In this high mountain region of small expanse but high

symbolic significance, pasture farmers, nature protection activists and tourism agents frequently quarreled over the slopes, forests, and peaks. They were united only in their concern for this alpine region, which they considered a scarce resource in East-Central Europe otherwise dominated by plains and low mountain ranges.

Since the national «discovery» of the Tatras in the nineteenth century, conflicts not only revolved around gaining access to the land and its resources, but also around the legitimate right to this nationally saturated landscape. What is more, in the age of territorializing states, land use practices became a means of control over this remote border region by central authorities – a development that provoked continuous discontent and protest among the rural population.

In order to grasp the different layers of meaning, this paper undertakes a close examination of competing notions of property. Inquiring the different understandings of property clashing in the Tatras time and again contributes to systematize the continued conflict lines. It also helps to link this specific region to land use conflicts in other places, be it on mountain tops or in the lowland.

0708-469 on Wednesday, 23.08.2023, 16:30-18:00

Unitobler – F 023

Conceptualising Mountain Regions: Problems and Possibilities

Organiser:

Jonatan Palmblad, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

Chair:

Lena Schlegel, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

Abstract:

This panel focuses on different conceptualisations of mountainous environments, across both disciplines and time. From providing a constructive conceptual framework to critiquing the narratives of dominant middle-class conservation ethos this panel offers important perspectives on how divergent affordances of mountainous landscapes are assembled together, made to align with dominant discourses, and contested. In the end, we hope to expand the discussion on how environmental historians and humanists can contribute both constructively and critically to the understanding of socio-natural environments featuring elevation.

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Paper 1:

Jonatan Palmblad, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

«From Hills to Sea»: The Regional Survey and the Usefulness of Environmental History

Environmental historians defy the very limits of the discipline of history, not only by considering the spatial dimension and its ecological aspect, but also by an innovative use of methodologies traditionally not belonging to the discipline. Veterans like Donald Worster and Patricia Limerick have argued that environmental history thus widens the scope of the whole field of history. But even though history has traditionally been focused on ideas and human actors at the expense of other factors, earlier attempts at a many-sided and historical understanding of the environments exist—especially among early geographers and sociologists. This paper therefore looks back at an older framework: the Regional Survey and the

notion of the «valley section», and its ambition to survey diverse socio-natural regions with varieties in elevation. Theorised by Sir Patrick Geddes (1854–1932), a biologist turned sociologist, the survey was meant to be conducted in an interdisciplinary manner by, among others, anthropologists, geographers, ecologists, and historians. The idea was to create a synthesising understanding of a particular region, led by the then multi-disciplinary sociologist, and the synthesis also involved what we now call citizen science, enlisting schoolchildren and the interested public. The valley section, moreover, was a heuristic tool for understanding diverse landscapes suitable for human development without undermining them: from mountains to the plains or the sea. Geddes's legacy is today found in bioregionalism, but the whole framework has been undermined by a rampant globalisation and adaptations are undeniably needed. This paper argues that environmental historians ought to engage with the Regional Survey for two main reasons: 1) their interdisciplinarity makes them suitable not only to participate but to lead such surveys; 2) it organically adds to the discussion of the usefulness of environmental history. Environmental historians already find themselves useful in light of the ecological crisis, but we have the possibility to be more proactive—and perhaps the key lies not in the future but in the ambitious plans of history. In a time that is more fragmented than ever but that values interdisciplinarity, environmental historians—for better or worse—have a lot to do. Where Geddes failed, we can succeed.

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Paper 2:

Nakul Heroor, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

Mountains as Waste, Mountains as Resource: Green Coloniality of Landscape Transformations

«Underutilised land» as a category in land classification has existed in many colonial contexts. The rugged, arid, rocky, mountainous landscapes still get categorised as «wastelands» in certain policy documents in India. A Wasteland Atlas of India was published as recently as 2019. This is an official document, purportedly with a scientific basis. This document provides a rationale for large-scale land transformations and legitimates corporate takeover of common lands.

Categorising a certain land as wasteland discounts existing ways of living with the land, empties the land of its people, erases histories, and flattens claims. It also makes the land fecund supplying it with the potential for new and «improved» use.

This paper traces the neo-colonial discursive logic behind the processes surrounding the «greening» of mountain wastelands. It brings to focus how the regimes of land transformation under the aegis of green governmentality discourses become entangled with various forms of dispossession of already marginalised peoples.

Using the analytic construct of mountainous as assemblages—of materialities, relations, technologies and discourses - this paper offers perspectives on how different relevant actors (experts, scientists, government officials, communities etc.) conceptualise the rich and diverse array of affordances that mountains have, pull them together, and make them align to render mountains as waste and as a resource. This paper argues that inscription devices, particularly processes of naming, categorising and «statistical picturing», are integral in doing this assembly work. These processes render certain affordances visible while erasing others. Understanding these processes is critical in resisting various regimes of homogenisation.

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Paper 3:

Teja Šosterič, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

Conserving the Sublime: The Sierra Nevada in Literature

Writer Kim Stanley Robinson recently wrote a new book on the Sierra Nevada mountains, which explores the mountains in view of a changing climate. Ever since John Muir wrote *The Mountains of California*, the Sierras have held an important place for thinkers. Mountains, because of their ability to instil the feeling of sublime, also feature prominently in cli-fi and other types of literary fiction; writers latch on to their extraordinariness.

The environmentalist organisation Sierra Club is named after the Sierra Nevada Mountains. Founded in 1892 by John Muir, its mission is «to conserve, protect, and create». However, conservation and protectionism are neither homogenous nor unproblematic. Preservation of nature is related to power, as it is often costly and requires political influence. It is therefore mainly undertaken by the elites; the Sierra Club being no exception despite its grassroots status. Historically, conservation efforts in the Sierra Nevada mountains have neglected the peoples who already lived there. Literature (fiction and non-fiction) about the mountains as a place of «pure nature» reflects the male- and middle-class-dominated narratives over the past century and a half.

In *The High Sierra*, Robinson attempts to correct this narrative; he does so because he understands the need for inclusion and to retain the Sierras as a symbol of environmentalist efforts. This is relevant given the progression of climate change, but it should also serve as a reminder of past injustices and include a vision for what is understood as «wilderness» in the future.

0709-200 on Wednesday, 23.08.2023, 16:30-18:00

Unitobler – F-105

The rise and fall of the top-seven prevailing trees of the Algarve landscape

Organiser:

Ana Duarte Rodrigues, Faculdade de Ciências, Portugal

Chair:

Ignacio García-Pereira, Faculdade de Ciências, Portugal

Abstract :

The southern region of Portugal – the Algarve – typically known for its sunny beaches of white sand and blue sea, has been one of the major targets of touristic exploitation for the last decades. The region's environmental identity and biodiversity have been lost. A balanced Mediterranean landscape of olive, carob, almond, fig, and orange trees, and grapevines has been almost replaced by «tropical paradises» made with turquoise swimming pools, palm trees, and camp golf. Focusing on the history of the top-seven prevailing tree varieties in the Algarve, this session aims at demonstrating the dialogue between the cultures in the mountains of Monchique and Caldeirão and the plains and coastal regions. The Mediterranean climate of the Algarve and its low level of rainfall turned these cultures into a challenge, and ingenious methods for their growth and irrigation have been developed. The solutions found clearly stem from the strong Islamic influence held in the region, in which wells, noras, and canals are used to capture, store and conduct water into orchards and vegetable gardens. Nineteenth-century descriptions emphasize the beauty of the Algarve landscape to such an extent that the whole coast of the Algarve made up of sand was transformed by the tireless application of its inhabitants, through artificial irrigation – either through the excavation of numerous wells or through the careful use of coastal rivers –, in a magnificent garden. This session argues that traditional horticultural practices in the Algarve can provide insights into different ethics, resilience, techniques, and methods as they were well adapted to the environment.

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Paper 1:

Pier Luigi Pireddu, Faculty of Science, University of Lisbon, Portugal

The Algarve Environmental Agency: Between Mountains and the Sea

The southern region of Portugal – the Algarve – typically known for its sunny beaches of white sand and blue sea, has been one of the major targets of touristic exploitation for the last decades. The region's environmental identity and biodiversity have been lost. A balanced Mediterranean landscape of olive, carob, almond, fig, and orange trees, and grapevines has been almost replaced by «tropical paradises» made with turquoise swimming pools, palm trees, and camp golf. Focusing on the history of the top-seven prevailing tree varieties in the Algarve, this session aims at demonstrating the dialogue between the cultures in the mountains of Monchique and Caldeirão and the plains and coastal regions. The Mediterranean climate of the Algarve and its low level of rainfall turned these cultures into a challenge, and ingenious methods for their growth and irrigation have been developed. The solutions found clearly stem from the strong Islamic influence held in the region, in which wells, noras, and canals are used to capture, store and conduct water into orchards and vegetable gardens. Nineteenth-century descriptions emphasize the beauty of the Algarve landscape to such an extent that the whole coast of the Algarve made up of sand was transformed by the tireless application of its inhabitants, through artificial irrigation – either through the excavation of numerous wells or through the careful use of coastal rivers –, in a magnificent garden. This session argues that traditional horticultural practices in the Algarve can provide insights into different ethics, resilience, techniques, and methods as they were well adapted to the environment.

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Paper 2:

Ana Duarte Rodrigues, Faculdade de Ciências, Portugal

The Top-Seven Trees of the Nineteenth-Century Algarve Landscape

Focusing on the Algarve landscape in the nineteenth century, we stress how much it has changed in terms of productive land, exportation markets, natural landscapes, and biodiversity. Stemming from the Identity, Memory, and Landscape (IML) conceptual framework, we argue that there is a total amnesia of autochthonous' varieties, horticultural practices, and water-wise management biases the agricultural potential of the region. This paper will cover the prevailing top-seven trees of the Algarve landscape - olive, fig, carob, cork oak, almond, orange tree, and vine. Figs constituted the principal produce of the Algarve and were considered by the inhabitants their bread. The Algarve was above all a fig landscape and particular techniques were used to produce early fruit maturation in order to raise the annual production. Almond trees were used to cover the landscape with pink during Spring and the fruit was used for pastries and for the fig industry. Olive trees in Algarve could not be cultivated as in the rest of Portugal because the soil was too dry. Therefore, the solution was to graft them on the wild olives. Carob trees grew naturally and were as common as wild olive trees. Vineyards grew on the ground, and expertise of effort was developed to be able to produce wine in the region. Orange trees, the ones that require more water supply, and clearly a landmark of Islamic influence in the Algarve, were affected by the disease in the nineteenth century. Nevertheless, and despite the predominance of fig cultivation, orange became its new label «A laranja do Algarve» (the Algarve orange) in recent years. This conference concludes with the gradual disappearance of the top-seven prevailing trees in the Algarve landscape.

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Paper 3:

Patricia Trindade Monteiro, Faculty of Science, University of Lisbon, Portugal

Lessons from History: Rescuing traditional practices

Focusing on the Algarve landscape in the nineteenth century, we stress how much it has changed in terms of productive land, exportation markets, natural landscapes, and biodiversity. Stemming from the Identity,

Memory, and Landscape (IML) conceptual framework, we argue that there is a total amnesia of autochthonous' varieties, horticultural practices, and water-wise management biases the agricultural potential of the region. This paper will cover the prevailing top-seven trees of the Algarve landscape - olive, fig, carob, cork oak, almond, orange tree, and vine. Figs constituted the principal produce of the Algarve and were considered by the inhabitants their bread. The Algarve was above all a fig landscape and particular techniques were used to produce early fruit maturation, in order to raise the annual production. Almond trees were used to cover the landscape with pink during Spring and the fruit was used for pastries and for the fig industry. Olive trees in Algarve could not be cultivated as in the rest of Portugal because the soil was too dry. Therefore, the solution was to graft them on the wild olives. Carob trees grew naturally and were as common as wild olive trees. Vineyards grew on the ground, and expertise of effort was developed to be able to produce wine in the region. Orange trees, the ones that require more water supply, and clearly a landmark of Islamic influence in the Algarve, were affected by the disease in the nineteenth century. Nevertheless, and despite the predominance of fig cultivation, orange became its new label «A laranja do Algarve» (the Algarve orange) in recent years. This conference concludes with the gradual disappearance of the top-seven prevailing trees in the Algarve landscape.

0710-488 on Wednesday, 23.08.2023, 16:30-18:00

Unitobler – F-113

Changes on the farm, changes in the soil. An environmental history of soils in Europe in the 20th century

Organiser:

Céline Pessis, AgroParisTech, France

Chair:

Timm Schönfelder, GWZO Leipzig, Germany

Abstract:

The 20th century is the century of «agricultural modernization» in Europe, understood as both a period and a dynamic, whose characteristic features are mainly the integration of peasants into agricultural capitalism, the development and expansion of mechanization, or the specialization both regionally and in agricultural sectors calling into question polyculture-livestock farming. At the heart of this dynamic and this period, the soils and their uses are revolutionized. Developments in mechanization in the 20th century brought about an unprecedented change in scale in the deployment of intensive land use. According to different chronologies in Europe, arable land is seized by agricultural modernity, integrated into increasingly massive and rapid flows of materials. The practice of plowing became industrialized, fertilizers, pesticides and amendments of animal origin became widespread over vast areas. This panel thus proposes to document the history of these soils by studying the reconfiguration of their uses, the new flows of materials passing through them, and the environmental consequences of this «agricultural modernization» in Europe in the 20th century.

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Paper 1:

Léandre Mandard, Sciences-Po, France

An environmental history of «consolidated» soils in Brittany, from the 1950s to the present day

Brittany is one of the French regions where the land consolidation has been the most important: between the 1950s and 1980s, two-thirds of its agricultural land was affected by this land development, which was

one of the conditions for the development of the «Breton agricultural model», paradigm of industrial agriculture in France. This major policy of land regrouping also applies to the massive removal of «obstacles to the rational use of the soil» (embankments, hedges, ditches, wetlands): considerable quantities of land are thus moved, new surfaces are opened up to mechanized exploitation, the traditional bocage gives way to vast bare plots, favouring the development of intensive livestock farming and able to soak up the amendments and inputs that come from it. As early as the 1970s, scientists and farmers noted that land consolidation had chain effects on the major biogeological cycles, and in particular that of water. Drying of certain sectors, soil erosion and leaching, flooding, upheaval of coastal ecosystems at the mouths of rivers... We will attempt to outline an initial approach to these major flows of materials, to define their relationship with land consolidation operations, and to chronologize their apprehension by agricultural and scientific circles.

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Paper 2:

Nina Toudal Jessen, University of Copenhagen, Denmark

Building new lands: Soil improvement as state building

Between 1921 and 1960, the majority of Danish lands were drained through state supported drainage schemes. With monetary support from the scheme, farmers converted low-lying areas such as meadows into arable lands. In addition, they drained already cultivated lands, thus overall making Denmark drier, and consequently regional differences in crops and land use evened out. This paper argues that the long state supported soil improvement through drainage fundamentally altered the Danish landscape as well as the conditions for agriculture. Therefore, following the recent calls in environmental humanities to pay attention to soils and their care, this paper aims to show how the current soils and their problems result from past decision-making.

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Paper 3:

Clémence Gadenne-Rosfelder, Ecole des Hautes Etudes en Sciences Sociales, France

Agricultural modernisation, material flows, and land use changes: an environmental history of industrial pig farming in Brittany (France, 1960s-1990s)

«Agricultural modernization» in France is characterized by, among other things, a regionalization of production, leading certain areas to specialize either in the cultivation of land or in livestock farming. In this respect, the case of Brittany is particularly interesting: apart from the seaside, where the land is improved and rich, the Breton soils are considered poor and not very productive, and the region, encouraged by state subsidies, and conducted by young modernists, quickly became the place of livestock production, in particular pig farming known as «above ground». This type of farming is very particular, in that it wants to be detached from its immediate environment, while being subject to the obligation to feed the animals it hosts, and to get rid of the manure it produces; it engenders a transformation in the relationship that farmers have with the land, but also in the flows of materials that cross it. This communication thus proposes to document the history of this double transformation. Between the 1960s and the 1990s, from being considered useless, owning land became a quasi-obligation, less to feed the pigs than as a sink for manure, produced in ever-increasing quantities. The very composition of this slurry changes during this period and affects the soil where it is dumped. More broadly, it is a question of making a material and environmental history of this new type of breeding, by entering the soil, on which breeding depends more than it would like.

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Paper 4:

Céline Pessis, AgroParisTech, France

Disqualified humus. The reconstruction of French soil after the Second World War

This paper considers the competing efforts to reshape the French soil after World War II, through land reform, mechanisation and fertilization policies. In the modernist gesture, the soil became a factor of production, and a good status for farmers should encourage investments in its physical and chemical improvement. The productivist soil must also be inert and standard, i.e. a neutral support for cultivation through which mineral inputs can pass. In order to feed these projects, agronomic experts worked to redefine and quantify soil organic matter, even proposing to eradicate the term «humus». Humus did not lend itself well to such a reductionist undertaking. It was a matter of decontextualising soil life from its living environment, of detaching humus from its local specificities and its multiple attachments. However, in the name of humus and «living soils», large landowners opposed reforms to the right to farm, tractors and synthetic fertilizers were challenged. Using examples from the plains of northeastern France, this paper shows that different conceptions of French agricultural reconstruction are at odds with each other through the relationship to the soil.

0711-198 on Wednesday, 23.08.2023, 16:30-18:00

Unitobler – F-121

Environment and History Journal: Early Career Researchers' Forum

Organiser:

Sarah Johnson, The White Horse Press, United Kingdom

Chair:

Sarah Johnson, The White Horse Press, United Kingdom

Presenters of the Different World Session:

David Moon, University of York, United Kingdom

Leona Skelton, Northumbria University, Newcastle, United Kingdom

Abstract:

Following the success of Environment and History's new Snapshots section of short papers by early career researchers working in topical areas, we would like to open out the conversation to allow ECRs to talk informally with those who have already published in E&H about their work, with a view to publishing short pieces in E&H in the future. More generally, we would like to reflect on E&H and inclusion, particularly with reference to the experiences, concerns and wishes of ECRs. Leona Skelton, the journal's new Deputy Editor has particular responsibility for diversity and inclusion and would be glad to hear about what the journal can do for you!

E&H Snapshots are essays that focus directly on the environmental challenges of the twenty-first century and looks to historical perspectives to inform a more sustainable world. Current themes are

- Species extinction
- Human health and the environment
- Energy and petrofutures
- Climate crisis, displacement and migration

In this event we want the historians of the future to tell us what other topics we should be airing and to give us their ideas for this more 'creative' space in the journal which has a longstanding relationship with ESEH.

0712-491 on Wednesday, 23.08.2023, 16:30-18:00

Unitobler – F-122

Will Steffen, History and the Environmental Humanities (H)

Organiser:

Libby Robin, Australian National University, Canberra, Australia

Chair:

Libby Robin, Australian National University, Canberra, Australia

Presenters of the Panel:

Julia Adeney Thomas, University of Notre Dame, USA

John McNeill, Georgetown University, Washington DC, USA (V)

Sverker Sörlin, KTH Royal Institute of Technology Stockholm, Sweden

Helmut Trischler, Deutsches Museum Munich, Germany

Abstract:

Will Steffen (1947–2023) was best known as an interdisciplinary Earth System scientist and world-leading climate activist. He was also influential in expanding the discipline of history into the planetary scale, introducing the concepts of the Anthropocene and the Great Acceleration. These «Big Ideas» have shaped history, art, music, museology and the environmental humanities, as well as scientific thinking.

Will was an environmental humanist in the broadest sense of the term. He explored questions of social justice, of Indigenous understandings of climate, he wrote about the GINI index of inequality, and selections from some of his technical papers became lyrics for songs and inspirations for environmental art and museum projects. His presentations with visuals were legendary. He was a warm and supportive colleague and strong mentor for early career scholars.

In the 1970s Will came to the Australian National University from the United States as a postdoctoral fellow in the Research School of Chemistry. Canberra quickly became home, and Will and his wife Australian citizenship. Will undertook many senior roles at ANU and for the Australian Government, including founding the Fenner School of Environment and Society. In 2011, he was appointed to the Australian government's Climate Commission, which was dedicated to deepening public understanding of climate change and its impacts. When the commission was abolished by a hostile new federal government in 2013, Steffen co-founded the Climate Council of Australia to continue the work funded by public donations. His second home was Stockholm, where he was director of IGBP (1998–2004) and continued his work for the IPCC and related bodies through the Stockholm Resilience Center. He was a co-founder of IHOPE (Integrated Histories and futures Of People on Earth), a judge for the Volvo Environmental prize and worked with many European museums and climate centres. He was still writing collaborative papers with people all over the world throughout his final illness. Will died in Canberra on January 29th 2023. His loss is widely felt: there were obituaries for him in the Guardian, in the Washington Post and even in Nature.

This panel will bring together historians who remember Will the humanist, who used his science wisely and generously, offering evidence-based advice to governments, to artists, to young scholars, and to historians.

0713-243 on Wednesday, 23.08.2023, 16:30-18:00

Unitobler – F-123

Elephants' tales: the wild, the tamed, and the pampered (H)

Organiser:

Anastasia Fedotova, Institute for the History of Science and Technology, Russian Federation

Marianna Szczygielska, Czech Academy of Science, Institute of Ethnology, Germany

Chairs:

Nigel Rothfels, University of Wisconsin, Milwaukee, USA (V)

Abstract:

Elephants are the quintessential charismatic megafauna. People have fostered a variety of relationships with these largest terrestrial mammals across different geographies and time periods. The papers contributing to this panel will explore how naturalists, keepers, veterinarians, and wildlife conservationists in Europe and Africa created and exchanged knowledge about elephants. Different care regimens were developed in European zoological gardens and private menageries for these precious specimens, while ideas about conservation and human-wildlife conflict informed elephant management in African taming stations and game reserves. Our panel aims at complicating the dichotomy of «captive» and «wild», while paying close attention to the details of historical elephants' diets, veterinary care, breeding, and training. Individual papers will move from exploring how the status of diplomatic gifts shaped elephant care-taking practices in imperial Russia in the long nineteenth century; surveying specialist journals to map out the production and circulation of knowledge about zoo elephants across Europe around 1900; discussing the colonial elephant conservation in DR Congo as part of broader trans-imperial networks; and examining the conflict between settler farmers and elephants in the 1910s-40s South Africa to showcase how ideas about wildness, tameness, and domesticity informed wildlife management. Throughout our presentations, we will follow the circuits of knowledge about pachyderms to contribute to the global history of human-elephant relations.

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Paper 1:

Anastasia Fedotova, Institute for the History of Science and Technology, Russian Federation

Marianna Szczygielska, Czech Academy of Science, Institute of Ethnology, Germany

Beasts of Prestige: Elephants in Saint Petersburg Imperial Menageries in the Long 19th Century (1796–1917)

Between 1796 and 1896 a total of nine elephants arrived in Saint Petersburg. These precious pachyderms were sent to the tsar and his heir as diplomatic gifts by dignitaries from Persia, Bukhara, Ceylon, and Abyssinia. The first arrivals were accommodated in the so-called Hunting Yard, but later a special elephant enclosure was built for them at the Tsarskoye Selo imperial residence. A host of dedicated caretakers and veterinarians attended to the needs of each animal. As tokens of prestige, these elephants were pampered rather than enslaved (Robbins 2002). Many of them continued to serve as gifts even after their death since their bodies were donated to zoological museums. In this paper, we explore the regimes of keeping and caring for elephants in the capital of the Russian Empire in the long nineteenth century. We start with discussing the logistics of moving the large mammals from South and Central Asia to North-Eastern Europe. Based on archival records, we follow the lives of these nine elephants, as well as people hired as their keepers to reconstruct the conditions of caring for these animal gifts. By focusing on the elephants' diets, veterinary care, and welfare, we analyse the production and circulation of knowledge about keeping elephants in imperial Russia. We do so in order to compare elephant captivity in the imperial menagerie with the conditions available for these animals in public zoological gardens and menageries. This comparison will highlight the role of political patronage and resources in captive elephants' management beyond western colonialism.

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Paper 2:

Oliver Hochadel, CSIC, Spain

Global giants. Learning how to keep zoo elephants around 1900

By 1900 there were zoological gardens on all five continents. Zoos were highly aware of each other's accomplishments and in particular of the thorny challenges they faced in animal keeping. The fluid exchange of information between zoos on how to feed, house and cure exotic animals was therefore of utmost importance. An elephant was a must-have for any zoo. Pachyderms often became star animals, darlings of the public but also objects of scientific study and veterinary care. Yet in this context of captivity knowledge about elephants was generated not in a systematic way, but rather in an opportunistic and haphazard manner. The zoo personnel often had to improvise when confronted with the arrival of new individuals, «behavioural» issues, health problems, births, and deaths of elephants (including the highly mediatic events of killing/euthanizing elephants). The range of actors dealing with zoo elephants was broad and diverse (in terms of specific skills and knowledge they possessed), ranging from zoo directors and naturalists to animal keepers, animal traders, veterinarians, but also architects designing elephant enclosures and possibly tamers from circuses. This paper will look at a variety of sources: journals such as *Der Zoologische Garten*, *La Revista del Jardín Zoológico de Buenos Aires*, and the *Proceedings of the Zoological Society of London*, articles from veterinarians, reports from «zoo journeys» and handbooks on animal keeping. They deal with elephants in the zoos of Barcelona, Buenos Aires, Calcutta, London, Melbourne, Paris, and Vienna, among others. On the one hand, we need to deal with the heterogeneity of these different and often idiosyncratic voices and on the other hand, keep in mind the highly interconnected nature of zoos. Hence this paper will ask how knowledge about keeping elephants in captivity could stabilize (if at all) and how it circulated among zoos on a global scale.

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Paper 3 :
Violette Pouillard, CNRS Centre National de la Recherche Scientifique, France & Ghent University, Belgium

Knowledge, discipline, and power. The making of international conservationism at the Elephant Taming Station (Uele, DR Congo), late 19th century-ca. 1940

The Elephant Taming Station was founded in the late nineteenth century by king Leopold II in the Uele, in the east of current DR Congo, and was subsequently developed by the Congo Free State then the Belgian Congo authorities as part of a conservationist programme bolstered by international agreements on wildlife protection in colonial sub-Saharan Africa. The colonial authorities planned to use the Station, which was located in a region that had become one of the main areas for ivory procurement in the late nineteenth century, as a showcase for the development of utilitarian alternatives to the hunting exploitation of pachyderms. Tamed African elephants would henceforth act as auxiliaries in the political and agricultural conquest of Congo. The Station was only led by a few colonial officials, and Indian and African workers and mahouts operated daily management and were in charge of the capture and tending of dozens of elephants. By merging insights from (post)colonial studies, environmental history, and animal studies, this paper will focus on the production and circulation of knowledge regarding the management of elephants at the Station from the late nineteenth century to the interwar period. It will shed light on the hybridity of knowledge regarding the care of elephants, as well as on the control and reframing of rural knowledge as part of the development of top-down, colonial conservation programmes which formed part of broader, trans-imperial networks.

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Paper 4:
Jules Skotnes-Brown, University of St Andrews, United Kingdom

Domestication and Degeneration: The Addo Elephants in South Africa, 1910-48

This talk examines the conflict between settler farmers and elephants in the Addo region in the 1910s-40s South Africa to explore the porosity of the concepts «wild», «tame», and «domestic», and their relationship to race, degeneration, nature conservation, and colonialism. In the 1910s, farmers indicted the Addo Elephants as «vicious» thieves who raided crops and «hunted» humans. This view conflicted with a widespread metropolitan perception of elephants as docile, sagacious, and worthy of protection. Seeking

to reconcile these perspectives, bureaucrats were divided between eliminating the animals, creating a game reserve or «elephant paddock», and drawing upon the expertise of Indian mahouts to domesticate them. All three strategies were attempted: the population was decimated by hunter P.J. Pretorius, an elephant reserve was created, and the animals were tamed to «lose their fear of man» and fed oranges. Despite the presence of tame elephants and artificial feeding, in press, literature, film, and ephemera, the reserve was publicised as a natural habitat and a living spectacle of the deep past. This was not paradoxical but provokes a need to rethink the relationship between wildness, tameness, and domesticity, along with their associated connotations of natural and unnatural. Elephant-keeping practices and knowledge-production in Addo reveal that such concepts were not implicitly opposed but existed on a spectrum paralleling mid to late nineteenth-century European hierarchies of civilisation. In segregationist South Africa, wild was merely a stage in the evolution of the elephant, much like the development of «the African».

0714 on Wednesday, 23.08.2023, 18:00-19:00

UniS – A 019

Outgoing Board

0715 on Wednesday, 23.08.2023, 19:00-21:00

UniS – S 003

Documentary Film Evening

Organisers:

Juri Auderset, University of Bern, Switzerland

Marcus Hall, University of Zurich, Switzerland

Peter Moser, Archive of Agrarian History Bern, Switzerland

Stefan Länzlinger, Archive of Social History Zurich, Switzerland

Thomas Schärer, Zurich University of the Arts, Switzerland

Chair:

Marcus Hall, University of Zurich, Switzerland

Introduction to the film sequences:

Juri Auderset, University of Bern, Switzerland

Peter Moser, Archive of Agrarian History Bern, Switzerland

Short documentary films from the Rural Film Database

Stefan Länzlinger, Archive of Social History Zurich, Switzerland

Thomas Schärer, Zurich University of the Arts, Switzerland

Cuts from «Wir Bergler in den Bergen sind eigentlich nicht daran schuld, dass wir da sind» («Actually, we mountain dwellers in the mountains are not responsible to be here» (Switzerland 1974, directed by Fredi W Murer, with English subtitles)

Thursday, 24 August 2023

0800-171 on Thursday, 24.08.2023, 9:00-10:30

UniS – S 003

New Voices in Water History 1: Premodern Histories

Organiser:

Ellen Fenzel Arnold, University of Stavanger, Norway

Chair:

Ellen Fenzel Arnold, University of Stavanger, Norway

Abstract:

The journal Water History is sponsoring two sessions, «New Voices in Water History» that build off the 2022 ESEH PhD school that took place in Bristol. These two sessions are based on papers that PhD candidates workshopped in Bristol. Our aim is to both create a space for these younger scholars to present their work and a pathway for them to get feedback that could lead to the successful publication of the pieces as essays. Water History hopes to highlight the exciting work being done by PhD scholars from across Europe, and support the ongoing efforts of the ESEH to work with junior scholars to enhance their work and help them participate in the broader scholarly community.

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Paper 1:

Alexander Hibberts, Durham University, United Kingdom

Culverting Divine Power: Drainage Systems, Water, and the Monastic Imagination, c.1350-1550

Why doesn't the sea flood the earth? What holds back the waves from drowning the land? To us, these questions may seem trivial and irrelevant, but they were matters of great concern to the late medieval mind. Following patristic exegesis, embodied in authoritative texts such as Augustine of Hippo's *The Literal Meaning of Genesis* (415), medieval contemporaries possessed a variety of theories explaining water-land differentiation, including a stasis established by God at Creation and subsequently upheld by natural law.

Within this framework of thought, this paper will examine the intersection between theory and practice at three houses of English Augustinian canons. These institutions constructed complex drainage systems for a variety of purposes, including marshland reclamation, to construct ponds for fish breeding, and protect against marine transgression. Removing bodies of water was not only pragmatic but was arguably akin to an act of creation, transforming wetlands into «useful» and productive landscapes. However, unlike the Creator, these monastic communities did not possess the divine power to keep water permanently at bay. Instead, culverts, channels, and rills required constant repair and modification to keep wetlands dry. This medieval monastic experience can also challenge our binary definitions of water and land, encouraging appreciation of liminal wetlands as buffer zones to counteract rising sea levels, rather than relying on expensive and immovable flood defences.

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Paper 2:

Lena Walschap, KU Leuven & University of Antwerp, Belgium

Riches and restraints: Harnessing marine resources on rural coasts in late medieval England

Late medieval coastal communities are commonly viewed through a lens of danger, constantly at risk of storm floods that destroyed buildings, infrastructure and agricultural fields. The sea however played a much larger and often more positive role in these communities, as it also offered certain opportunities. Access to fishing for example could provide income and sustenance in times of increased uncertainty because of storminess and harvest failures at the onset of the Little Ice Age. The field of fishing history does study this role of the sea, but has focussed predominantly on the rise of specialisation and scale enlargement. This narrative of transition to commercial fishing has overlooked the diverse alternative fishing patterns and strategies that persisted around the European coasts, despite the related difference in vulnerability or resilience of coastal communities, economic outcomes and pressure on fish stocks. Combining the insights of the vulnerability and resilience perspectives with fishing history, my research challenges the dominant image of peasants as exceptionally vulnerable by exploring small scale fishing activities as a coping strategy. In this paper I would like to further explore the context in which peasant fishing could -or could not- take place. Not all coastal communities were free to roam and exploit the sea in equal measures: Geography and infrastructure, competition with urban fisheries and the organisation of labour in both agriculture and fishing, could in some regions constrain and in others stimulate the combination of fishery and agriculture into a pluriactive livelihood.

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Paper 3:

Laura Tack, University of Greifswald, Germany

Memory of Medieval and Early Modern storm surges in the south-western Baltic Sea

Even though the Baltic Sea is known as a comparatively peaceful body of water, its history contains several flood events which have been remembered over the course of several centuries. Storm surges hitting the coast have shaped its perception and fuelled a tradition of memory.

The paper will analyse the memory practice regarding medieval and Early Modern storm surges in the south-western Baltic Sea, including the coasts of Denmark, Germany and Poland. How did the coastal inhabitants commemorate the flood events of significant impact in a material as well as immaterial way? Flood marks and anniversaries, but also religious practices such as memorial prayers or processions and even such curiosities as memorial sharks, play a key role in this.

Further investigation will go into how these memorial practices were passed on over the following centuries and what narratives developed out of the ongoing memories. This analysis will allow for an insight into the collective memory of the coastal communities and shed light onto the way people have been coping with a seemingly unpredictable and sometimes hostile environment.

The paper aims to tell about this part of the environmental history of the Baltic Sea as a water body and its perceived agency as part of the divinely controlled nature within the medieval and early modern Christian worldview. Furthermore, it will explore public memory as well as cultural practices regarding weather extremes in the region and how these were perceived as events of impact, which sparked an ongoing memorial culture and tradition.

0801-276 on Thursday, 24.08.2023, 9:00-10:30

UniS – A-022

Common struggles – Un- and redoing the difference between collective land and resource tenure in mountains and plains

Organiser:

Lisa Francesca Rail, University of Vienna, Austria

Chair:

Lisa Francesca Rail, University of Vienna, Austria

Presenters of the Roundtable:

Tobias Haller, University of Bern, Switzerland

Antonio Manzoni, Sant'Anna School of Advanced Studies Pisa, Italy

Anna Varga, University of Pécs, Hungary

Nevenka Bogataj, Slovenian Institute for Adult Education, Slovenia

Marin Cvitanovic, Bournemouth University, United Kingdom

Lana Slavuj Borčić, University of Zagreb, Croatia

Abstract:

A usual argument on agrarian commons goes that we are more likely to find them today in mountainous and other remoter areas, than in easier to cultivate lowlands. In the plains resource commons become enclosed as agriculture intensifies, while in the highlands they can persist because the terrain doesn't lend itself as easily to changing land use patterns and corresponding interests. At this roundtable we un- and redo this argument on commons in both mountains and plains.

What we question about the above narrative is that it easily forecloses discussion on other than topographic parameters that feed into the persistence or enclosure of resource commons; that it renders persistence as passive and accidental rather than as economic, political, and also cultural struggle; and that it leaves aside the ongoing work that keeps commons persisting in the present – high and low. Countering this we discuss active (historical, political-economic, and contemporary-administrative) struggles against commons enclosure in mountainous areas, if they differ(ed) from those in lowland areas, and how so. We compare contemporary commons in both mountains and plains and how they vary along the parameter of topography, but also along others, e.g. the legal recognition of collective land titles, the commoners' political bargaining power, or the recognition of the ecological services they perform. We link past common enclosures in lowland areas and subsequent agrarian industrialization with contemporary struggles for identity and economic viability of agricultural highland commons, leading to a more nuanced understanding of the relation between land commons and topography.

0802-C15 on Thursday, 24.08.2023, 9:00-10:30

UniS – A-122

Mountains, movement, and migrations (H)

Organiser:

ESEH Programme Committee

Chair:

Péter Szabó, Czech Academy of Sciences, Czech Republic

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Paper 1:

Anidrita Saikia, Delhi University, India (V)

Peripheral Descents: A History of The Migration of the Misings Through Folktales

This paper seeks to present an environmental history of migration from the mountains to the plains in Northeastern India, centred on the history of the Mising tribe, an animistic indigenous community.

Historically dwelling in the lower foothills of the Eastern Himalayas bordering China, the Misings are today dispersed across the plains of Assam and the hills of Arunachal Pradesh, with many clans having migrated to

the plains in gradual waves from around the 14th century, where they settled near the banks of the Brahmaputra River as an agricultural and riverine community. Like many indigenous communities of the Northeast, the Misings lacked a script in terms of their spoken language, but have a rich oral tradition of folklore, myth, songs and chants. In carving out an environmental history of this migration from mountain to plain, it is these compilations of folklore and myth that I will use as my primary sources.

I aim to explore the reasons for this migration, the changes it brought, the role that terrain and resources came to occupy, and the disruptions and practices that linked both the mountains as well as the plains. I will look at how these stories engage with the non-human world, and whether life in the plains still carry memories of that in the mountains, along with the question of how women were represented in the two ecological landscapes, before ending with a few observations about studying environmental history amongst indigenous communities, and the practice of history itself.

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Paper 2:

Marco Milella, University of Bern, Switzerland

«Celts up & down the Alps». A multidisciplinary study of Late Iron Age contexts from Switzerland and Northern Italy (4th-1st c. BCE)

The Alpine range is a primary focus for biocultural analyses of the Late Iron Age (LIA - 4th-1st centuries BCE) in Western Europe. The settlement in this period of «Celtic» groups in the Italian peninsula, and the establishment of transalpine cultural and commercial networks testify to the essential role of the Alps as both barrier and transit area between Central European and Mediterranean regions. In this presentation, we discuss the heterogeneous influence played by the Alps on LIA social dynamics and economy by presenting the first results of the recently funded CELTUDALPS research project. The project focuses on a multidisciplinary evaluation of territorial mobility, genetic variability, and their social correlates on more than 200 individuals representing LIA human groups of Northern Italy and Switzerland. We compare intra- and inter-contextual patterns of isotopic, paleogenetic, archaeological and osteoarchaeological data to clarify the degree of territorial mobility in these two areas, the potential contacts between Transalpine and Cisalpine regions, and the effect played by environmental and cultural variables on human diet, mobility, and social differentiation. The preliminary picture emerging from these combined datasets suggests converging and diverging biocultural trajectories – and heterogeneous patterns on a geographic basis, while at the same time highlighting once more the Alpine range as main factor during this relevant period of European Prehistory.

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Paper 3:

Xue Wang, University of Leipzig, Germany

Mountain, Plain and Coast: The Environmental Factors behind the Transfers of the Capital during the Later Jin (1616-1636)

The Later Jin (1616-1636) was the precursor to the Great Qing (1636-1911), the last dynasty of China. The domain of the Later Jin generally equals to the areas known as the northeast of China nowadays. During its first decade, the Later Jin moved the capital frequently. In sequence, its three capital cities were Hetuala (since 1616), Liaoyang (since 1621), and Shenyang (since 1625). In the following decade, the Later Jin never transferred the capital again. Political and economic reasons behind the Later Jin's decisions on the capital transfers have been analysed deeply. However, the influence of environmental factors is rarely discussed. In fact, the natural surroundings of each of these three cities are completely different. The most obvious differences are well represented by their locations: Hetuala locates upon Changbai mountain, surrounded by forest; Liaoyang situates on the transitional areas between Changbai mountain and Liao Plain, and it also closes to seacoast; Shenyang lies in the middle of Liao Plain, connecting with Changbai mountain by river. This presentation investigates the roles played by Changbai mountain, Liao Plain, and seacoast in the Later Jin's capital relocation. As a case study, it shows the entanglement between mountain, plain, and coast in the

process of human society's settlement. Meanwhile, it also displays human society's efforts to adjust their interplay with the entangled mountain, plain, and coast according to their changing concern and demand. Its purpose is to prove that mountain/plain as well as mountain/coast interconnection is not only physical, but also constructed via human's activities.

0804-287 on Thursday, 24.08.2023, 9:00-10:30

Unitobler – F 005

Environmental Histories of Hydrocarbons

Organiser:

Odinn Melsted, Maastricht University, The Netherlands

Chair:

Ute Hasenöhrl, University of Innsbruck, Austria

Abstract:

Oil and gas (hydrocarbons) have been crucial energy carriers and chemical feedstocks of postwar industries and societies. From the very beginning, the production, distribution and combustion of hydrocarbons has been associated with its environmental impacts, ranging from oil spills, refinery pollution or the accumulated release of sulphur dioxide or the greenhouse gases methane and carbon dioxide. In recent decades, hydrocarbon companies have been under scrutiny by an environmentally informed public concerning its impact on the environment, most controversially for «greenwashing» campaigns and their stance on climate science. This panel will shift the focus to the long history of environmental problems, conflicts but also solutions related to the supply of hydrocarbons, with a special focus on the respective industries. To that end, we will ponder the following questions: How and why have hydrocarbons been a matter of environmental conflict? How have industries and suppliers of hydrocarbons dealt with environmental challenges? How have topographies (such as mountains, plains, valleys or the sea) influenced or even created environmental problems and conflicts? The 4 papers examine refineries in the Swiss Alps, Finnish oil spill prevention, Austria's natural gas dependency, and the «desulphurisation» of hydrocarbons. Overall, our panel discusses several important and understudied aspects of the environmental histories of hydrocarbons, which are essential towards understanding the histories of human energy use and to evaluate how environmental challenges have been met in the past and how we might address them similarly or differently in the future.

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Paper 1:

Nicolas Chachereau, University of Basel & EPFL Lausanne, Switzerland

Refineries in Plains and Valleys. Debating the Environmental Problems of Oil Infrastructure in Switzerland (1958-1966)

As oil consumption surged in Western Europe after 1945, its environmental and sanitary consequences became visible to consumers for whom they had remained largely hidden until then. Indeed, refineries had long been located in the producing countries or, in Europe, near the sea. This changed with the creation of new infrastructure that both reacted to and helped sustain the rising demand. In the late 1950s and early 1960s, major pipelines were built across Europe, making it economically sound to plan the construction of refineries inland. However, little is known about the public reactions to these new refineries. This presentation will shed light on this topic by focusing on one country. Unlike France, Italy or Germany, Switzerland saw the building of its first refineries as a result of these late 1950s developments. Over a few years, six different locations were discussed. All were controversial, and in all cases concerns over pollution

featured prominently in the debates. Critics often referred to local wind patterns or criticised the idea of refining oil in «steep valleys». Drawing on archives from local and national authorities, the presentation will discuss the differences between the projects, such as the players involved, the topography and local environments and the communication strategies of proponents and opponents. By doing so, the study will disentangle the various factors that led to the building of two refineries and the cancellation of the other plans, thus highlighting one aspect of the contingency of the process that made oil a major source of energy.

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Paper 2:

Tanja Riekkinen, University of Oulu, Finland

Oil Company Neste's Arguments During the Finnish Oil Spill Debates at the Turn of the 1960s and 1970s

Oil spills have occurred as long as oil has been exploited by human beings. Since the ending up of oil and refined oil products in the environment was defined problematic in many locations, politicians, experts and oil companies started to come up with number of solutions to manage the challenge. The means to control the unwanted flows of oil included introducing national and international agreements, laws, and technoscientific solutions. In a geographical area in the Northern Hemisphere which lacked its own oil resources and had become increasingly dependent on imported Soviet oil since the middle of the 1950s, Finland, the idea of mastering the runaway resource took a strong foothold. Whereas the original motivation behind the control measures was not to waste oil, with the spread of environmental awareness in the 1960s the emphasis shifted to preventing oil pollution. In 1969, oil tankers Palva and Raphael and the steamship Eira ran aground in the Finnish territorial waters causing oil spills. The tankers were owned by the Finnish national oil company Neste which had become a major player in the oil business in the country. The events and possible future solutions to oil spills were debated in several different forums, and criticism was directed at the company's ability to prevent and combat oil pollution. This paper focuses on the arguments that were brought to the fore during the debates by Neste in the form of an advertising campaign.

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Paper 3:

Robert Groß, BOKU University of Natural Resources and Life Sciences, Austria

Energy Dependence Beyond Geopolitics: Regional Natural Gas Providers and the Construction of «Green» Energy Systems in Austria

To date, natural gas (NG) energy histories have approached energy dependence primarily from a geopolitical perspective. However, the environmental history of the NG regime cannot ignore its role in the upcoming environmental and climate policies of the 1970s and 1980s. This presentation leaves the arena of international energy policy and focuses on the NG regime through the lens of regional energy suppliers in Austria. The country faced coal scarcity due to missing domestic stocks and interrupted links to former trade partners in Eastern Europe after 1955, but it possessed rich reserves of NG. Regional NG suppliers established pipeline infrastructure, which allowed them to deliver NG to industrial operations and thermal power plants after 1955. Domestic NG reserves became scarce in the mid-1960s, leading to the first western European import contract with the USSR in 1968. In the boom that followed, regional suppliers expanded NG supplies, first to counteract the oil crises and later as applied air pollution control measures. The paper discusses how regional NG providers have integrated environmental considerations into their business strategies and, by doing so, reframed NG as a «green» energy carrier. Furthermore, it debates how NG providers' strategies have changed due to clean air agreements, new environmental protection groups, and national desulfurization politics. In addition, the paper focuses on new consumer groups that have been integrated into NG networks reframed as «green» energy systems. Thus, the paper contributes to understanding energy dependence as a phenomenon constructed in everyday practice and environmental

politics, complicating current decarbonization efforts.

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Paper 4:

Odinn Melsted, Maastricht University, The Netherlands

Cleaning Hydrocarbons, Combatting Acid Rain: Desulfurization in the International Oil and Gas Industries, 1970s-1980s

The growing use of hydrocarbons led to unprecedented levels of atmospheric pollution. While today's primary concerns are carbon and methane, the more pressing issue was long considered sulfur dioxide. Even though refined oil and gas contain less sulfur than coal, which contributed to the growing use of hydrocarbons from the 1950s, sulfur emissions persisted as an environmental problem. The scientific and societal diagnosis of «acid rain» led to emissions cleaning in industrial plants, the substitution of coal with low-sulfur alternatives, but also required hydrocarbon suppliers to reduce the sulfur contents of oil and natural gas. In this paper, I examine how hydrocarbon companies contributed to the successful «desulfurization» of European and North American energy systems. According to David Stern (2005), European sulfur emissions peaked at 13.7 million tons in 1974 but subsequently decreased to 4 million tons in 2000 and declined even further until today. Oil and gas companies have in recent decades become notorious for their denial of scientific research on acid rain and climate change. Unlike the carbon problem, hydrocarbon industries contributed to combatting acid rain, despite delays and pushbacks, and lowered the sulfur contents of fuel oils and natural gas through desulfurization and catalytic cracking in refineries. Those processes, combined with partial bans on residual fuel oil, enabled a radical reduction of sulfur emissions. The example of «desulfurization» represents an historical precedent for the currently aspired «decarbonization», where energy systems and industries were successfully transformed – not least in cooperation with the polluters – to reduce emissions.

0805-434 on Thursday, 24.08.2023, 9:00-10:30

Unitobler – F 013

Opportunities and Obstacles in Interdisciplinary Disease Histories: Integrating Archaeogenetics, Ecology and History (H)

Organiser:

Tim Newfield, Georgetown University, Washington DC, USA

Chair:

Tim Newfield, Georgetown University, Washington DC, USA

Presenters of the Roundtable:

Marcel Keller, University of Bern, Switzerland

Sabine Hübner, University of Basel, Switzerland

Tim Newfield, Georgetown University, Washington DC, USA

Philip Slavin, University of Stirling, United Kingdom

Denise Kühnert, Max-Planck Institute of Geoanthropology, Germany (V)

Abstract:

Interdisciplinary and collaborative histories of disease are increasingly common. This is particularly true in regards to the history of plague in the late antique and late medieval Euro-Mediterranean region. Great advantages are to be had blending the methods and data of independent disciplines, and working across disciplinary divides, but there are challenges too. This roundtable brings together specialists in this field to discuss the sort of work that has been done, what has been gained and what has been overcome, in an

effort to extend the advances made in plague studies recently to histories of other pathogens and past experiences of disease in other periods and regions, from the pandemics of antiquity, to the introduction of Afro-Eurasian pathogens to the Americas, to the colonial epidemics of the nineteenth and twentieth centuries. Scholars from three distinct fields of study relevant to the history of disease -- archaeogenetics, epidemiological modelling and history -- will take part. Importantly, a key motivation of this research, which looks to better our appreciation of past epidemics and disease evolutionary processes, has been to enhance our understanding of modern disease dynamics and our predictive abilities. Opportunities and obstacles inherent in attempting to make historical disease dynamics relevant today, for global and public health professionals and the public, will also be discussed at the roundtable.

0806-447 on Thursday, 24.08.2023, 9:00-10:30

Unitobler – F 021

Landscapes and Labscapes: Technology, Temporality, and Place-Based Knowledge in 20th-Century Ecology

Organiser:

Thomas Lekan, University of South Carolina, Columbia SC, USA

Chair:

Iva Pesa, University of Groningen, The Netherlands

Abstract:

This panel investigates the unique role of alpine and savanna «landscapes and labscapes» (Kohler, 2002) in twentieth-century ecology. Focusing on both ecological stations (labscapes) and environmental tourist destinations (landscapes), the papers examine the tensions that emerged as scientists, policy makers, planners, and museum curators tried to universalize data, experiences, and technologies developed in heterogeneous times and places. Whether on the plains of East and Central Africa, on game ranches in South Rhodesia, or in musealized glacier landscapes next to a tourist road in the German Alps, the papers are united by their goal of analysing the irresolvable tensions of «making nature» legible, measurable, or commodifiable across local and global scales.

The papers show that twentieth-century scientists and planners relied on scientific instruments, visualization, collaboration, monitoring, and data collecting to create transferable knowledge, but they also depended on varied forms of local knowledge, diverse time horizons, and varied future expectations to assemble and disseminate their findings. Such universalizing from localized prototypes sidestepped larger ideological and political constellations that informed investigators' experimental design, such as decolonization and gender norms articulated in Schleper's case study, or the legacies of apartheid landholding in Lekan's paper. Worldviews could also be front and centre in landscape design, as Zeller shows in his examination of the glacier museum under National Socialism.

Divergent or heterogeneous temporalities also unsettled each case study's documentation of historical actors' move from microcosm to macrocosm. As Schleper and Lekan show, fears of African independence or desires for «development» stood in sharp contrast to the everyday rhythms (and multiple inconsistencies) of field research. In Zeller's case, Nazi embrace of glaciers and geological time ultimately clashed with the modernist tempos of automobility and touristic consumption.

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Paper 1:

Simon Schleper, Maastricht University, The Netherlands

Environmental Monitoring and «Women’s Work» in African Model Ecosystems, 1930s-1970s

Much of our current ecological knowledge stems from 20th-century field research in a handful iconic places, such as the wide plains of East and Central Africa, presumed to be more pristine than the nature of the heavily developed global North (Neumann, 2002). Aided by increasingly advanced technologies of observation and monitoring, ecologists, mostly young men from Europe and North America, reported on supposedly universal biological processes that formed the foundations of conservation policies worldwide (Tilley, 2011; Schleper 2021). Ecologists, however, seldom travelled alone. Research companions and partners, mostly women – some with formal training – were involved in the daily work of ecologists, including the tracking of animals, the recording of data, and the publishing of findings, in ways that have received little attention in the historiography. Moreover, research companions’ popular accounts and travel writing provide important insights into changing ideas about global nature in the contexts of the political decolonization of research areas and the technological modernization of research and monitoring practices.

In this paper look at two women who travelled and worked in Africa in the inter- and post-war decades with their husbands, and who have been involved in ecological research and conservation work, Juliette Huxley and Martha Hayne Talbot. Not only do I want to highlight some of the collaborative labour that has gone into ecological monitoring. Drawing on personal archives and travel reports by these women, I reflect on their value as sources for 20th-century history of ecological research practices, monitoring technologies, and nature conservation.

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Paper 2:

Thomas Zeller, University of Maryland, College Park MD, USA

Deep Time Along the Highway: The Nazi Glacier Garden and the Making of Tourist Landscapes

Alpine landscapes with their peaks and valleys have been tourist sites since the 19th century. While climbing and hiking in these landscapes has been the preferred mode of appropriation for some tourists, museums, panoramas, paintings, and exhibits have provided viewing opportunities and less strenuous ways of experiencing the Alps. Alpine museums in Turin (1874), Bern (1905), and Munich (1907) popularized growing scientific knowledge about the geology, geography, and human history of the Alps and offered prospects and viewing opportunities without having to leave urban centres. In this context of the growing musealization of the Alps, this paper will analyse the glacier garden («Gletschergarten»), and open-air museum located near Berchtesgaden in Bavaria.

The Nazi dictatorship adopted the idea of the German Alpine Road, a tourist road traversing the German Alps, from 1933 onwards. During construction of the highway in 1934 and 1935, glacial rocks marked by striations were found under several meters of gravel and topsoil. Highway planners decided to locate the new road immediately adjacent to the geologically rare finding and to turn it into a tourist site: the glacier garden. A parking lot invites motorists to stop and to gaze upon the rocks and their markings. My paper will examine this glacier garden and its presentation in scientific and popular media as a way to wrestle with the temporalities of glacial, technological, and environmental change. The most modern terrestrial transportation technology of the time – cars and roads – was situated next to a monument to Deep Time. The forward thrust of Nazi modernity encountered powerful geological forces and embraced them. Along with scholars in the environmental humanities, I will understand these counter-temporalities as an intentional mise-en-scène and examine its inherent and ultimately unresolved tensions.

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Paper 3:

Thomas Lekan, University of South Carolina, Columbia SC, USA

The Doddieburn Experiment: Game Ranches as Technopolitics in East African Savannas, 1959-1967

Recent studies of science, technology, and development in the Cold War have emphasized that diplomatic tensions and the desired rapid pace of both liberal and socialist modernization led experts to emphasize «portable» over «placed-based» knowledge, especially when it came to reconciling development with (real or perceived) environmental limits (Hecht et al., 2011). The «high-yield variety» (HYV) seeds that sprouted the Green Revolution became a model for Western-led efforts to wring surpluses out of savanna landscapes long perceived as barren and «sick» due to colonial neglect and Indigenous overgrazing.

In this paper, I examine experimental game ranches, such as Doddieburn near Bulawayo in former Southern Rhodesia, as sites of Cold War «technopolitics» where conservationists allied with agriculturalists to promote eco-development. Here the American ecologist Raymond Dasmann showcased his theory that wild animals contained more biomass than their domesticated counterparts and could thus be «cropped» to yield more meat per acre than cattle stations. Yet it quickly became impossible to repeat the experiment beyond this fenced-in, white-owned enclave. As the experiments moved to East Africa, game ranches faltered due to unexpected weather and parasites, dashing Kenyan and Tanzanian hopes for a new wildlife industry. The game ranch thus misaligned developmentalism's urgent futurity (based on racialized fears of decolonization) with a deep evolutionary past in which large savanna mammals (unlike North American cattle) avoided human contact and lived amicably with pests and parasites. Such futurity also dismissed a pastoral history predicated on wild-domesticate «grazing succession». To Dasmann's chagrin, white Rhodesian landowners, not African communities, reaped the profits from such privatized sustainable development.

0807-311 on Thursday, 24.08.2023, 9:00-10:30

Unitobler – F 022

Triumph over Climate: Global Scientific Networks and the Development of Arid and Semi-Arid Regions

Organiser:

Michele Sollai, Swiss National Science Foundation, Switzerland

Chair:

Karolin Wetjen, University of Kassel, Germany

Abstract:

The question of agricultural development and environmental re-making of drylands has long been at the core of several imperial colonial projects and processes of state-building. Empires as well as nation-states mobilized emerging scientific disciplines – e.g. agronomy, ecology, soil sciences, climatology, meteorology – in view of transforming arid and semi-arid regions from «barren» frontiers and «underdeveloped» peripheries into flourishing and profitable territories. Historiography has observed how the trope of making dry regions bloom characterized several states and empires' high modernist narratives of radical environmental transformation. Accordingly, the transfer of «modern» science and technology would allow not only to contain the adverse features of dry climates – e.g. scarce and unevenly distributed rainfall, soil erosion, hot winds – but to triumph over them, thus 'unlocking' the productive potential of vast, seemingly unexploited regions.

This panel delves deeper into the complex dynamics of science and development in arid and semi-arid regions. It explores the tension between adapting to or transforming the environment intrinsic to many scientific and technological projects based in dryland areas. It focuses on processes of scientific reckoning

of the peculiar features of arid and semi-arid environments, highlighting the interplay between scientific expertise, dryland populations' practices and knowledge systems, and more-than-human local actors such as plants, animals, and pathogens. Moreover, the panel examines global movements of scientific knowledge, technologies, and 'techno-scientific organisms' connecting various dryland regions across metropoles and colonies, imperial and national contexts.

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Paper 1:

Michele Sollai, Swiss National Science Foundation, Switzerland

Where Europe Ends, Where Africa Begins: Global Dryland Science and the Making of Italy's Mezzogiorno as an Agro-Ecological Frontier, 1890s-1940s

Since the early 20th century, Italian agronomists contended that a fundamental environmental difference underpinned Italy's divergence between the wealthy North and the «backward» South. While the temperate climate of northern Italy had allowed for the development of «modern» agriculture, the dry conditions of the Mezzogiorno represented an environmental barrier in the path of modernization traced by continental Europe. As one leading Italian agronomist affirmed, «on the one side is Europe that ends, on the other is Africa that begins».

Focusing on the period of Italian imperial expansion, the paper analyses how Italian agrarian scientists conceptualized such environmental «otherness» of the Mezzogiorno vis-à-vis «ideal» European climates. Rather than the transfer of technological fixes as the solution to overcome the adverse dry climate of the Mezzogiorno, agrarian scientists acknowledged the agro-ecological features of Italy's southern drylands as the only basis to frame locally adapted agro-ecological practices.

Furthermore the paper analyses the «hybridization» of agrarian development in the Mezzogiorno, as it combined its modernizing mandate with the valorisation of indigenous environmental knowledge and local crops. Moreover, the paper shows how agrarian scientists drew on imperial and colonial sites sharing similar environmental and agricultural features with the Mezzogiorno, such as dry climates, water scarcity, and extensive wheat farming. By emphasizing the trans-imperial dimension of agrarian development in the Mezzogiorno, the paper argues that Italian agronomists conceptualized the region as an «agro-ecological frontier», politically part of the metropole yet scientifically connected to imperial frontier drylands such as the US Great Plains, Australia, and colonial North Africa.

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Paper 2:

Mona Bieling, Geneva Graduate Institute, Switzerland & Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

Palestine's place in a declensionist world: British and Zionist science in the making of Middle Eastern and Mediterranean spaces, 1920s-1940s

Environmental declensionist narratives describe the idea that a certain environment has been degrading steadily ever since a presumed former «golden age». This narrative has been particularly persistent in the study of drylands. Both Middle Eastern and Mediterranean spaces have been studied through this lens without including in detail the study of historic Palestine, geographically located at the intersection of both Middle Eastern and Mediterranean spaces. This neglect is peculiar considering that the studies of British colonialism and Zionism in mandatory Palestine often include declensionist narratives that have only been challenged in more recent scholarly works.

This paper seeks to bring Palestine into the broader conversation of both Middle Eastern and Mediterranean frameworks discussing declensionist narratives in circulation in mandatory Palestine. It uses historical documents from the 1920s-1940s to investigate how actors themselves understood the space they were operating in. The focus is on British and Zionist officials as well as scientists that developed

Palestine according to a specific set of values, embracing science and technology as «fixes» for a landscape that they saw as lacking and backwards. How did these actors define the space surrounding them, to which many of them were newcomers? How did they position themselves and their respective colonial projects in the broader geographical context? Lastly, which role did the internal environmental division within Palestine have, which was often seen as a dichotomy between a coastal strip (the plains, associated with Jewish settlers and «progress») and a hilly hinterland (the mountains, associated with Palestinian Arab «backwardness»)?

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Paper 3:

Faisal Husain, Pennsylvania State University, University Park PA, USA

The Sixteenth-Century Ottoman Venture into the Arid Zone: Case Studies from Diyarbakır and Erbil

During the reign of Selim I (r. 1512-1520) and Süleyman I (r. 1520-1566), the Ottoman Empire expanded its imperial boundaries deep into the arid core of the Middle East, such as eastern Anatolia, Syria, Egypt, and Iraq. These Middle Eastern drylands south of the Taurus Mountains formed a challenging contrast to the better watered Ottoman heartland in the Balkans and western Anatolia. Much of the newly conquered territories lacked enough precipitation to support permanent settlement, rainfed agriculture, or forest growth. Instead, aridity favored an economy more dependent on irrigation agriculture and mobile pastoralism.

This presentation studies sixteenth-century Ottoman frontier expansion into the arid zone through two micro case studies: the Ottoman provinces of Diyarbakır (in southeastern Turkey) and Erbil (in northern Iraq). It does so by analysing the Ottoman cadastral surveys (*tapu tahrir defterleri*) of Diyarbakır and Erbil that were completed around the years 1568 and 1542, respectively. The Ottoman management of crop cultivation and animal husbandry in both provinces, my presentation argues, provides evidence that the Ottomans did not seek to replicate their temperate economic model in their new arid provinces. Instead, they tailored their economic institutions to meet the challenges of an arid setting. More specifically, the Ottomans accommodated traditional subsistence strategies, honed locally for millennia, to dig deeper into the organic wealth of the arid zone while minimizing their financial risk.

Cancelled: 0808-461 on Thursday, 24.08.2023, 9:00-10:30

Unitobler – F 023

Tensions of Global Environmental Governance: negotiating environmental objects and institutions (H)

Organiser:

Gloria Samosir, KTH Royal Institute of Technology Stockholm, Sweden

Chair:

Sverker Sörlin, KTH Royal Institute of Technology Stockholm, Sweden

Abstract:

Global Environmental Governance captures the institutionalization of an understanding of the human-earth relationship that is significantly characterized by scientific knowledge of global and environmental change. This epistemic orientation emerged in the decades after World War II and gradually consolidated at key junctures of international environmentalism. These junctures included the 1972 Stockholm Conference on the Human Environment which catapulted environmental issues onto the global agenda, the establishment of the Intergovernmental Panel on Climate Change (IPCC) in 1988 which was mandated

to assess and disseminate scientific information on climate change, and the seminal 1992 Rio Earth Summit which popularized the concept of «sustainable development» and propelled the creation of the United Nations Framework Convention on Climate Change (UNFCCC).

The formation of Global Environmental Governance and its constitutive mechanisms has not been straightforward. From the beginning, its emergence has been fraught with contention and debate between, among others, different international organizations, civil society actors, and national interests especially along the global North-South lines.

This session presents three episodes in the development of Global Environmental Governance, representing different geographic and institutional settings, and spanning over several decades. By examining disputes around planetary limits from the early 1970s, controversies in international development lending in the 1980s, and negotiations in creating a climate policy tool to reduce forest-related carbon emissions in the 2000s, the panel seeks to shed light on the contentious and politically charged history of a concept that potently shapes contemporary understandings of the conditions of our planetary environment.

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Paper 1:

Eric Paglia, KTH Royal Institute of Technology Stockholm, Sweden

Planetary Limits contra Economic Growth in the context of the 1972 Stockholm Conference

This paper is part of a larger research project that investigates the emergence of, and early attempts to reconcile, an enduring tension in the realm of environmental governance: the idea of non-negotiable limits to growth on a planetary level, contra the legitimate demands of developing countries to pursue economic growth to alleviate poverty and achieve standards of living on par with the global North. Both perspectives became prominent, and a source of heated discussion, during the months leading up to the 1972 United Nations Conference on the Human Environment in Stockholm, and have ever since influenced the politics of what, some fifteen years later, came to be called sustainable development. In this paper, the social interactions, intellectual positions and normative commitments surrounding environmental limits and economic development among a sphere of key individuals closely associated with the Stockholm Conference preparatory process will be examined in order to shed light on the interplay of seemingly incompatible ideas that at an early stage shaped policies and contemporary narratives of planetary boundaries and sustainable development.

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Paper 2:

Gloria Samosir, KTH Royal Institute of Technology Stockholm, Sweden

Catalyst for environmental reform: Encounters between the World Bank and civil society organizations in the 1980s

In the 1980s, the World Bank became a target of fierce criticism among environmental non-governmental organizations (NGOs). Activist groups, including Friends of the Earth, the National Wildlife Federation, and the Sierra Club, lambasted the World Bank for funding development projects that often proved harmful to local communities and ecosystems. Fervent campaigns were organized by local and transnational civil society organizations to draw attention to the destruction wrought by practices of international development lending. In the face of mounting pressure, lobbying efforts, and bad publicity, the World Bank was forced to become more accountable for the adverse social and environmental consequences of the projects that it bankrolled.

This paper examines the politics of environmental reform in the World Bank in the 1980s. It follows the

advocacy work of environmental NGOs, which led to the adoption of more comprehensive environmental regulatory measures in the World Bank by the end of the decade. It homes in on campaigns around the Indonesian Transmigration Program, which activists upheld as one of the notorious examples of an environmentally destructive project backed by World Bank loans. More generally, the paper looks at how the history of global environmental governance is in part shaped by the institutional transformation of development finance agencies, and by the grassroots movements that propelled such transformation.

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Paper 3:

Jasmin Höglund Hellgren, KTH Royal Institute of Technology Stockholm, Sweden (V)

REDD+ as a global climate policy instrument: The re-making of forests as governable object in Argentina

The UNFCCC initiative Reduced Emissions from Deforestation and forest Degradation (REDD+) aims to create carbon markets to reduce forest-related carbon emissions. However, this initiative is not a neutrally derived set of tools. Rather, it is a form of environmental governance enacting particular social norms, institutions and assumptions, which shape collective decisions regarding the use and management of forest resources. In Argentina, where deforestation has peaked during recent decades, a national Forest Law was passed in 2007 aiming to halt this development. Shortly thereafter, Argentina started preparing for REDD+ highlighting the Forest Law as the main framework for its implementation.

This paper examines the REDD+ preparations in Argentina and the need to adapt the Forest Law to the logic of allocating funds based on reductions in forest-related emissions, to illustrate the tension created when GEG mechanisms meet local contexts. Drawing on forest management in Argentina before the introduction of REDD+ and on material produced throughout the preparatory «REDD+ readiness phase», the paper is interested in the actors and negotiations around «forests» as national development goals meet «global» ideas of what forests are and what they should be for.

0809-292 on Thursday, 24.08.2023, 9:00-10:30

Unitobler – F-105

Ruling With and Against Nature: Circulation and Transformation of Plants and Animals in the Context of European Colonialism

Organiser:

Daniele Valisena, Université de Liège, Belgium

Chair:

Thomas Simpson, University of Cambridge, United Kingdom

Abstract:

«Colonization [...] has been transforming the Earth endlessly. Man, as the most active and formidable biological agent [is modifying] the natural environment and the ethnical constituency of the new [colonial] lands. Civilized humanity is fighting against the physical world and the forces of nature which are not immediately productive». This passage is taken from the introduction to the economic geography handbook for high schools and universities written by Italian geographer Roberto Almagià in 1938. Two years after the proclamation of the Italian Empire, Fascism was mobilizing science to naturalize Italian colonial efforts. This claim synthetizes the European states' approach to nature in the age of modernization (19th-20th centuries) and its intimate connection with expansionist discourses and practices. The making of the Italian and French Empires entailed the «civilization» and «redemption» of various kinds of natures, as well as the naturalization of social, political, and racial discrimination, and the

eradication of certain socio-ecologies that were considered not enough pure or productive. This panel aims at analysing the interplay between Italian and French colonial politics, zootechnical and agrarian science, and more-than-human role in specific non-democratic settings. The panel consists of four presentations: the first paper explores breeding procedures under the Second Empire in France (1850-1872); the second paper focuses on cattle breeding under Fascist rule (1922-1943) both in Italy and in the African colonies; the third paper zooms into fascist autarchic agricultural practices and discourses in African colonies (1937-1943); finally, the last contribution offers a methodological, theoretical and historiographical overview on the role of non-human actors in political regimes.

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Paper 1:

Benedetta Piazzesi, EHESS – Ecole des Hautes Études en Sciences Sociales, Paris, France

Biopolitics and Zootechnics: Transformations in the logics of animal government under the Second Empire in France

From the 17th century, modern states start a process of economic and political investment in animal husbandry. This process marks an important phase in the takeover of animals as objects of government. The improvement of animal breeds and the management of their reproduction then begin to be considered a «state affair», and it is in this sense that we propose to consider modern animal husbandry strategies as biopolitical technologies in their own right. In particular, the long process of normalization of breeding procedures is achieved in the mid-19th century with the birth of zootechnics. We will show how this new science responds to the economic and political transformations of its time, in particular to the colonial and industrial impulse under the Second Empire. From the 1850s, a new interest in the circulation of animal resources on a global scale emerges, and two different logics of colonial exploitation find themselves counterposed. On the one hand, the science of acclimatization, which proposes to import live exotic animals in order to adapt them to French territory (on the basis of the faith in «indefinite perfectibility» of living beings) and make new consumable resources out of them. On the other hand, zootechnics, which proposes to maximize the productivity of animals through the specialization of breeds and the mechanization of factory farms, in order to commercialize them as finished products. Both acclimatization and zootechnics thus seek to respond to the colonial policies of the Second Empire, and represent two alternative logics of globalization of animal resources.

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Paper 2:

Daniele Valisena, Université de Liège, Belgium

Mussolini's Cows: Incorporating race, technology, and ideology in cattle breeding practices during Fascism in Italy

According to a popular tale, during the Fascist rule, Benito Mussolini went on a short tour of the most modern farms in Italy to witness with his very own eyes the technological, agricultural, breeding, and land remediation accomplishments of the regime. The story goes that after visiting some labor cattle, then some dairy cattle, and finally some breeding cattle, Mussolini realized that he had been shown the very same bovines in all places. As in all Fascist totalitarian endeavours, propaganda, ideology, racism, and technology were all mixed together and, sometimes, even incorporated into human and non-human bodies. With this presentation, I intend to reflect upon the ways in which Fascism saw, conceived of, intervened upon, and incorporated in bovine bodies the ambiguous technophile and conservationist ideas and practices that nurtured Fascist ideology. Societal, cultural, and scientific practices and visions, as well as racism, were all key elements of the totalitarian effort of remediation and transformation of land (bonifica in Italia, literally meaning «rendering good or productive»), society, and race that lied underneath Fascist ideology. By combining STS, environmental history, and environmental humanities perspectives and methodologies, and focusing on bovine bodies and zootechnical journals, I am to present a few stories testifying to those attempts to transform socio-natures and to remediate (bonificare) society and nature in Italy and the

Italian colonies during the Fascist time.

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Paper 3:

Roberta Biasillo, Utrecht University, The Netherlands

Autarchic or Non-Autarchic: Plant dilemmas in North and East Africa under Italian fascist rule

In 1937, the Italian Fascist regime launched the new autarchic plan that would have ensured Italy, a country poor in natural resources and partially isolated from the international community, self-sufficiency. Autarchy represented both a set of concrete policies and an envisioned dream for a regime that equally deployed technology, violence, and political faith. In the late 1930s, autarchic goals and achievements were set and reset several times and they presented different temporalities according to the geographical area of the empire. The debate on autarchy cannot be separated from its relationship with nature nor from the building of the empire. Indeed, imperial environments grounded the possibility of such a political economy: they offered unverified and unverifiable natural resources and testing grounds. This presentation introduces as specific testing grounds two plants, North African olive trees, and East African cotton. Both plants became essential in the rhetoric and material transformation of colonial environment: they conveyed Italianness, political supremacy, civilization, economic valorisation. Despite fascist propaganda, plants on the ground were everything but Italian and fascist species and they revealed the impossibility of implementing purity; moreover, their level of production remained far from any planned level (if there was any). To what extent unrealized political visions can affect the environment? To what extent non-human actors can serve and resist political purposes simultaneously?

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Paper 4:

Stefania Gallini, National University of Colombia, Colombia

Animal turn, Critical Plant Studies and De-colonial archival thinking: challenges to European colonial research

Imperial cows, fascist pigs, enslaved cotton, colonial sugarcane, racist rice, democratic coffee, autarchic olive tree: recent scholarship is re-appraising the study of political regimes by focusing on other-than-human actors and the biopolitics they exercised. Although the general mandate of EH is indeed understanding history as a co-evolutionary terrain of humans and the rest of nature, thinking on the historical role of species other-than-humans in making the political world as we know it, is a more recent and specific goal. Multispecies ethnography, STS, along with closer insights into Indigenous ontologies provide the epistemological inspiration of this blossoming research thread. Within this frame, the paper addresses three «turns» which are challenging the subjects and the methods of EH dealing with animals and plants. Two of them attain the Environmental Humanities: the Animal Turn and the Plant turn. They are re-orienting the scholarship and fostering new research fields, like the recent Critical Plant Studies, by inspiring questions about multispecies entanglements, the agency of living species, biopolitics, and eventually what it means to be humans. The third «turn» is the product of the De-colonial archival thinking, an intellectual move and praxis headed to unveil colonial traces in historical archives and library collections in order to expose them as such, and dismantle colonialism and exclusion by means of «a different way of archiving». The paper is aimed at offering a more global and historiographical setting to the national case studies presented in the panel.

0810-256 on Thursday, 24.08.2023, 9:00-10:30

Unitobler – F-113

Ukrainian Studies between Decolonization and Methodological Nationalism: What Environmental History Has to Offer?

Organiser:

Oleksii Chebotarov, University of Vienna, Austria

Chair:

Julia Malitska, Södertörn University, Sweden

Presenters of the Roundtable:

Oleksii Chebotarov, University of Vienna, Austria

Anna Olenenko, Khortytsia National Academy, Poland

Melanie Arndt, University of Freiburg, Germany

Tatiana Perga, State Institution «Institute of World History of the National Academy of Science of Ukraine», Ukraine

Abstract:

The full-scale stage of Russia's war on Ukraine intensifies long-standing debates about Ukraine's subjectivity in history and causes a significant challenge to the studies on Eastern European history, which are still often limited to Russian or Soviet Cold War-style research. The war questions the scholarly understanding of Ukraine, Russia, and even the bigger part of Europe we often carelessly refer to as the post-Soviet space.

Ukrainian studies are now gaining the status of a growing trend in European and North American academia, but this trend is likely to be fleeting. Therefore, the discipline positioning of Ukrainian studies and directions for its further development is a major concern for the academic community. Many universities declare the decolonization of curricula and research programs to pull Ukrainian topics out of the shadow of Russian studies. However, the question of what will replace the Russian context in Ukrainian studies remains unresolved.

Traditional Ukrainian historiography is mainly interested in the nation and national state-building with all the relevant limitations. Accordingly, the demand for researchers to overcome methodological nationalism often is unaddressed. This roundtable suggests potential directions for the development of Ukrainian studies and historical writings on Eastern Europe in the field of environmental history. The speakers will address the perspective of the shift to studies on human-nature interactions as an alternative to national and state-oriented narratives. Mainly, participants will focus on the role of landscapes in imperial history, economic, military and ideological use of waterscapes, and environmental dangers, responses and culture in modern Ukrainian history.

0811-C19 on Thursday, 24.08.2023, 9:00-10:30

Unitobler – F-121

Knowledge and science: mountains, rivers and plains (H)

Organiser:

ESEH Programme Committee

Chair:

Etienne Samuel Benson, Max Planck Institute for the History of Science, Germany

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Paper 1:

Lachlan Fleetwood, Ludwig Maximilian University Munich, Germany

Shifting Sands and Wandering Rivers: Climatic Stability and Environmental Determinism in Imperial Surveys of the Taklamakan Desert

In the late nineteenth century, the mountains and plains of Central Asia often featured in imperial imaginations as spaces of geopolitical intrigue, but they were also of growing environmental and scientific interest. Of particular fascination were multicultural stories of wandering rivers fed by mountain glaciers and shifting sands that had, respectively, abandoned and buried cities in the Taklamakan desert. It also became clear that many of the ruins existed in places incapable of supporting similarly large populations under the climatic conditions of the present. While much scholarly attention has focused on the dubious archaeological activities of Western explorers in the Taklamakan and surrounding mountains (especially their relation to the historical «Silk Roads»), in this paper I instead examine the theories of climatic instability they engendered (among them, wider debates over desiccation). Here strongly determinist views – most notoriously by geographer Ellsworth Huntington – were developed to justify alleged civilisational differences and imperial expansion. At the same time, I show how these expeditions always depended on the assistance of Central Asian brokers, guides, technicians and labourers, as well as on intergenerational oral traditions to map climatic changes. Ultimately, this paper considers why Central Asia became a key space for debates over environmental determinism and climatic stability. More widely, it argues that historicising imperial questions around the changing limits of habitability – and understanding their postcolonial legacies – is essential to countering a recurrence of racist and neo-determinist thinking in the face of the current climate crisis (especially in language around climate-induced migration).

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Paper 2:

Ana Isabel Lopes, University of Porto, Portugal (V)

Sand mountains or deserts? The perception of dunes on the northwestern coast of Portugal (18th-19th century)

The unconsolidated parabolic dunes of the northwest coast of Portugal today reach a height of 10 to 30 metres, although the afforestation of these areas does not make this very clear. Their instability and encroachment up to 5 kilometres inland was responsible for the sanding-up of agricultural areas or the disappearance of entire villages in the past from the end of the Middle Ages to the end of the 19th century. This paper tries to understand how the dunes were understood by the locals, national and foreign travellers, scholars and engineers in the 18th and 19th centuries: whether as spaces between the inhabited areas and the Atlantic Ocean, which the locals often crossed, to maritime gathering resources and as a tenuous wall protecting them from piracy and privateering, or whether the dunes were easily sculpted by the wind and impossible to cultivate. The chronology and the historical sources allow us to observe an evolution of knowledge on dune dynamics and solutions to stop drifting sands, as well as on the preparation and specialisation of the individuals responsible for the afforestation of the coastal areas at the end of the 19th century and promoted by the Portuguese State. Likewise, we try to rescue the memory of the north-west coastal landscape, observing how the Portuguese coast was seen before the intense occupation of the early 20th century and its devastation by beach tourism in recent decades.

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Paper 3:

Donal Thomas, State University of New York, Stony Brook, USA

Western Ghats in the Global Networks of Colonial Knowledge Transfer: A Local and Colonial Account of the Natural World of Mountains

The paper looks at how knowledge systems in the Western Ghats of South Asia contributed to the global networks of knowledge transfer during the colonial period. I will focus on the European colonial inroad to the Western Ghats from the late eighteenth to the twentieth century that fueled the local and colonial encounters and exchange of knowledge. Western Ghats are a mountain chain with tropical evergreen forests and is recognized as one of the world's eight hottest hotspots of biological diversity by UNESCO and home to over hundreds of tribal groups who still live in the mountainous forested areas. Historically, the Western Ghats runs parallel to the Malabar Coast, where the first European, Vasco da Gama, landed in Asia via the Atlantic and the Indian Ocean in 1498. The paper will further examine how colonial interaction with the native lives of the Western Ghats resulted in creating a hybrid knowledge system. In a way, the interaction of local and global resulted in the intermixing of various knowledge that created a hybrid environment and natural world. The paper will also explore how indigenous local knowledge contributed to the making of many European metropolitan institutions and societies, for example, Kew Gardens, Britain, the home for colonial botany. The paper will not only focus on human actors but will bring both the faunal and floral worlds to the discussion. I will use both South Asian and colonial sources to have a collective understanding of various historical actors.

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Paper 4:

Mathijs Boom, Utrecht University, The Netherlands

Beneath the Plains. An Amsterdam Well and the Making of Deep History, 1605-1852

In 1605, engineers drilled a deep well in Amsterdam, describing successive layers of sand, peat and shells that came to the surface. This record of a world beneath the plains was circulated by the polymath Simon Stevin among correspondents in the Republic of Letters, reaching savants like the elder Huygens, Mersenne, and Leibniz. Descartes and Steno, crafting new histories of the Earth, might have heard of it. For over two centuries, the record of the well was used to evoke the plains' deep history, a counterpoint to the more famous question of mountain formation. This paper explores the previously unstudied history of this document and its reception: from its inception as a Renaissance «meteorological» observation, all the way to its reassessment by mid-19th-century geologists. Over the course of 250 years, both the environmental and intellectual context for this reception changed dramatically. Massive drainage projects reshaped the environment of Holland, turning knowledge of subsiding soils a matter of utmost concern. The remaking of Holland's environment became tied to a new understanding its past, present and future. While 17th-century accounts saw the soils beneath Amsterdam as recording a «most miraculous antiquity» rivalling that of Rome, to geologists of the 1850s, the buried beds testified to a prehuman history of the North Sea region, one that might hold the key to its future, too. Connecting the histories of lowland environments and environmental knowledge making, this paper reconsiders a key episode in the European imagination of the deep history of the Earth.

0813-C18 on Thursday, 24.08.2023, 9:00-10:30

Unitobler – F-123

Sanitation, waste and water management (H)

Organiser:

ESEH Programme Committee

Chair:

Petra J.E.M. Van Dam, Vrije Universiteit Amsterdam, The Netherlands

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Paper 1:

Matthijs Degraeve, Vrije Universiteit Brussel, Belgium

Indoor water management. Sanitary governance of private housing in London, Paris and Brussels, 1850-1940

The way in which urban water was managed in the past has attracted much research attention within environmental history. A Foucauldian link was uncovered with power structures and the regulation of urban life, whereby sewers acted as a means of social direction and control that enabled governments to induce cleanliness. The scope, however, often remains focused on the management of large infrastructures like public utilities, dams, canals, etc. Equally important for the government's sanitary measures to take effect, was control over the ways in which water was actually used inside the home, in the growing networks of indoor pipes and drains that connected the public systems to private appliances in bathrooms and water-closets. Concerning a period characterized by an increasing privatization and individualization of sanitary comfort, the question then arises how governments were still able to exert control over private property and influence the indoor use of water?

Information on the governance of domestic water use during the nineteenth- and early twentieth-century transition period is scarce and fragmented across a variety of historical subdisciplines, such as on housing inspections, building codes, public health, utilities and plumbing fixtures. Based on a review of this literature and an analysis of regulatory sources, this paper proposes a comparative study of government interventions in private sanitary conditions in London, Paris, and Brussels between 1850 and 1940. The research will look at the actors involved in regulation, the instruments of governance, the areas in which the government intervened, and the motives behind the issued regulations.

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Paper 2:

Andras Vadas, Eötvös Loránd University Budapest, Hungary (V)

Where Mountains Meet the Plains: Budapest's Water Management before the Modern Times

Buda, Pest, and Óbuda are the three major towns that united to form Budapest in 1873, exactly one hundred and fifty years ago. A research project supported by the National Research, Development, and Innovation Office of Hungary began its work in 2022 that looks at the environmental history of the town(s) with special regard to the management of water resources which was one of the keys to the development of this urban area. Using the concept of socio-natural sites, the paper looks at the ways waterscapes were transformed and negotiated in pre-modern times to sustain the needs of the largest population concentration in pre-modern Hungary.

By analysing charter evidence – mostly lawsuits related to the different rights and privileges on water use –, the so-called Ofner Stadtrecht – the urban law code of the town of Buda –, as well as the results of decades of research into the urban topography of the towns the paper attempts to understand how the different interests in water-use – navigation, milling, sanitation, industrial use, fishing, etc. – were aligned, and what problems the growing number of interested parties in using the resources caused. The paper argues that urban streams in the borders of the three settlements were under considerably larger environmental pressure than the Danube.

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Paper 3:

Harrison Jack Croft, Monash University, Melbourne, Australia

Damming and Severing: A Study at Birrarung, Southeast Australia

Birrarung/Yarra River rises at Mount Gregory in the Victorian Alps (southeast Australia) and travels some 240 kilometres southwest before emptying into Melbourne's Port Phillip Bay. In 1957, this epistemological and geological link - between mountain as source and bay as mouth - was severed by the construction of a dam. While the infrastructure prevents flooding and provides the state of Victoria with 70% of its drinking water, this has not been without its cultural and ecological drawbacks.

This paper uses Birrarung/Yarra River as a case study for exploring the implications of damming rivers and the loss of ecological and imaginary oneness that these riverine projects present as side effects. This paper is built upon materials that arose with the Upper Yarra Reservoir project in the middle of the twentieth century. Photographs of the dam at various stages of completion are plentiful, so too are newspaper articles debating and subsequently celebrating and deriding its opening in 1957. Government reports complete this paper's source list, which ponders how Victorians responded to the new dam, and how the behaviours of more-than-human beings that use the river were also forced to change.

The working title for this paper emphasises the compartmentalising of the river's whole, and I argue that the dam acts to split the river into discrete entities in Victorians' imaginings, rendering any eco-projects that consider the floodplain as a whole more difficult to envisage and enact.

10:30-11:15

Mensa/Entrance Area UniS & Unitobler

Coffee Break

Poster Session on Thursday, 24.08.2023, 10:30-11:15

Mensa/Hallway UniS

Poster Session II

Poster 6:

Christine Pappelau, Independent Scholar, Germany

Sustainable building in the Alps: the «oikonomieia» of historical buildings as «obstinate resource»

The ancient Greek terminus «oikonomieia» comprises in its meaning the entire resources and management of a house and a household as well as the concept of economic rationality and shortage or surplus. As Ines Lüder showed in her dissertation (published in 2022), economic historical farm buildings can be perceived as «obstinate resource». If we enlarge this term in the context of historical farm buildings to construction materials, techniques, lasting temporal use, management of the surrounding environment, water use and system, it reveals economic rationality as well as a provoking obstinacy to rural depopulation and urbanisation.

The resources stone and wood were used ever since in the Alps, water was dispersed in irrigation systems as canals or «bisses». Contributions to the contemporary architectural competition of «Constructive Alps» show, that the surplus of these resources is nowadays used in sustainable building activity by economic rationality. There is still a large capacity of sustainably managed mountain forests to provide timber for construction. The «greying» and «greening» of the Alps provide in the future even more of these resources by a higher tree line.

Historical farm buildings can serve as a model for sustainable use of resources.

In the 14th century the Walser population spread and often settled in high areas as the climate was warmer then. Studying their techniques and their resource management can provide adapted methods to the challenges of climate warming and the growing fragility of the Alps.

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Poster 7:

Dmitrijs Porsnovs, University of Stavanger, Norway

Tire Reefs of USA: Road to Hell Paved with Good Intentions

Artificial reefs made of tires started to appear near the Atlantic coast of the US in the 1960ties. Historical evidence shows how hundreds of people in Florida drop thousands of discarded tires into the ocean being fully confident that they are doing good. Simple people were not alone in this faith; the tire reef building activities were led by well-respected people, bolstered by authorities and recommended by scientists. At that time it seemed to be a good idea. However, 30 years later the tire reefs appeared to be an environmental disaster with many millions of USD in direct costs and immeasurable indirect ones. Over the years tire bundles have disintegrated and the reefs turned into huge moving underwater landfills, that destroyed surrounding corals and eliminated any signs of life in large seabed areas. In the 90s, it was understood that this idea was not good at all, therefore many coastal states prohibited the use of tires in artificial reef construction, but not all of them. The worst part of this story is that around the same time when US Army divers began learning to clean up the disaster created in the 1970s in South Florida, tens of new tire reefs appeared off the Atlantic coast of New Jersey. This study based on work in local and regional archives will expose the history of tire reef building in the US and why politicians and scientists supported these projects.

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Poster 8:

Svitlana Valeriivna Pryshchenko, State University of Infrastructure and Technologies Kyiv, Ukraine (V)

Image of mountains in Swiss travel posters of the XX cent.

In recent years, Mountains as a cultural heritage in the poster are relevant not only for Switzerland but also for other European countries, including Ukraine. The Alps had been one of the most important places for tourism in Europe, since the XVIII cent. The art-imagery aspect of Swiss travel posters consists precisely in the interdisciplinary approach, – it is environmental history and graphic art. The activation of attention on the contemporary environment will contribute significantly to the development of eco culture in Society. The author is shortly considering the imagery and stylistics of posters in the context of visual culture. Vintage travel posters of the XX cent., compared to modern ones, are a bit naive from today's point of view, expressively straightforward, but much more creative. Mountains were the main objects to promote tourism development. All images, coding certain messages, formed a state of reliability, stability, and openness to consumers. Graphic means ranged from the partial stylization of natural forms to emphasized geometry or pop art. Nowadays, the travel poster is developing dynamically also as applied industry – advertising graphics. The interesting images, colour, nonstandard interpretation, and emotion are needed, and so it becomes more important to use creative technologies in Advertising as a visual-verbal model – metaphor, metonymy, allegory, associations, and hyperbole also. Results. These materials are part of the academic author's integrated course for the Master's Degree «Design of Advertising», which can be used not only by designers but ecologists, advertisers, culturologists, sociologists, and managers of socio-cultural activities also.

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Poster 9:

Eli Ashkenazi, Oranim College and Beit Berl College & Technion – Israel Institute of Technology, Israel

Roman and Byzantine empires influence on agriculture in the Negev Highlands desert south Israel

Ancient agricultural systems based on runoff harvesting techniques are abundant in the Negev Highlands desert area of southern Israel. In this study investigations on the classification and distribution of ancient agricultural systems prevailing till the modern era in the surrounding of the Roman-Byzantine towns Avdat and Shivta. It led the investigators to the elaboration of the traditional classification of runoff agricultural systems in this region. It was found that the key factors for building these agricultural systems were the geological and geomorphological characteristics of the specific site locations and the site geographic distance from the ancient towns and roads. Depending on these factors, different types of agricultural systems were constructed in accordance and adaptation to the physical characteristics of the local desert environment. Thus, the large diversity of ancient agriculture systems indicates that they were constructed by local farmers and not imposed on these communities by an external authority. In this presentation we shall discuss the influence of the Roman and Byzantine empires on agriculture in this region throughout the generations since the Roman-Byzantine periods until today.

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Poster 10:

Paul Kirschstein, University of Greifswald, Germany

Going against the current. Saving rivers as an act of political empowerment

Watershed moments are more than a metaphor. They affect people's lives and their relationship with history since turning points are an essential tool in narrating past events. A decisive form of turning point can be called a peripety. Aristoteles introduced the term to describe the focal event of a tragedy, but it is transferable to non-fictional narratives.

The Alta-saken constitutes a decisive turning point in modern Norwegian history. It describes a selection of events between 1970 and 1982 in Norway, centred on the conservation of the Alta-Kautokeino River and the status of the Sámi as an ethnic minority.

The efforts of a dedicated people's movement and several indigenous actors induced a lasting change in the framing of waterscapes and local communities in Northern Europe. The Alta-saken is a case study of how water resources and their ecological, cultural and economic appraisal have fundamentally impacted the history of political empowerment of indigenous communities. My research into this case builds on regional and national newspaper articles, tracing the developing consensus of the narrative status of the events as a historical turning point. Following the flow of events, one can identify ripples and disruptions, twists and turns in the historical developments. Ultimately, I want to explore how turning points have been used as rhetorical tools by some actors and how this reflects in the cultural values of river systems. Although the protests failed to stop the dam construction, the increased public attention to Sámi rights has strongly influenced policymakers until today.

0900-174 on Thursday, 24.08.2023, 11:15-12:45

UniS – S 003

New Voices in Water History 2: Modern Histories (H)

Organiser:

Ellen Fenzel Arnold, University of Stavanger, Norway

Chair:

Ellen Fenzel Arnold, University of Stavanger, Norway

Abstract:

The journal Water History is sponsoring two sessions, «New Voices in Water History» that build off the 2022

ESEH PhD school that took place in Bristol. These two sessions are based on papers that PhD candidates workshopped in Bristol. Our aim is to both create a space for these younger scholars to present their work and a pathway for them to get feedback that could lead to the successful publication of the pieces as essays. Water History hopes to highlight the exciting work being done by PhD scholars from across Europe, and support the ongoing efforts of the ESEH to work with junior scholars to enhance their work and help them participate in the broader scholarly community.

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Paper 1:

Ágnes Németh, ELTE University Budapest, Hungary

The reform of Budapest's sewerage system and its impact on the city in the 2nd half of the nineteenth century

Budapest was the Hungarian co-capital of the Austro-Hungarian Empire. The city was actually created in 1873 by the unification of three municipalities: Pest, Buda and Óbuda. Although the three towns were closely tied together before that, they were still three very different municipalities in terms of their natural resources, geographical settings, and their stage of development. Also, in terms of geography, an important factor is the Danube, a major river in Central Europe, which flows through the city and divides Pest (left bank/eastern side) from Buda and Óbuda (right bank/western side).

As a result of the population growth brought about by the great urbanisation and industrialization of the 19th century, the environmental problems of the unified Budapest increased, particularly in relation to water pollution. Also during this period, the cholera epidemic caused recurrent problems, which hit Budapest particularly hard in the 1860s and 1870s. The institutional, community and individual solutions to these problems were centred, as in many other large European cities at the time, on an adequate water supply and sewerage system and thus began the general sewerage reform of Budapest in the 1860s.

In my paper, I will examine the impact of the differences between the three cities (that make up Budapest) on the general sewerage reform. How the changes of the drainage system (which contained the Danube, the different streams and the canals) have manifested themselves in the formerly independent towns' life on the two banks of the Danube. What were the discourses that led to the creation of the unified plans of the general sewerage reform?

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Paper 2:

Alexia Shellard, Independent Scholar, Portugal (V)

A History of the Upper Paraguay Basin: Mutable Geographies of the Pantanal

Rivers, streams, marshes, lagoons...an aquatic labyrinth interspersed with grass fields, dense woods and rocky outcrops. Located in the midst of South America, along the borders of Paraguay, Bolivia and Brazil, the Pantanal is the largest tropical wetland in the world, comprising hundreds of thousands of square kilometres of plains. Contoured by small mountain ranges at the east and by the Andes foothills at the west, it confines with the Amazon rainforest at northwest, Pantanal is ruled by the flow of the shifting waters of the upper Paraguay basin. Yearly, extensive floods change the geography of Pantanal, creating new landscapes. However, the constantly moving land has not prevented the settlement of diverse human populations, who have been supported by the rich biodiversity of Pantanal over the past few centuries.

During the first centuries of European presence, Pantanal was known as Lake of the Jarayes, acquiring its current name at the 18th century, when Portuguese found gold nearby and started to colonize the land. But it was only at the turn of the 19th to 20th century, that Pantanal was incorporated into modern and capitalist paradigms through the establishment of transports and communication networks and the institution of modern property rights. Nowadays, even if Pantanal is considered a well conserved biome, it faces huge threats due to fires, deforestation, fishing and infrastructural projects. This paper will address

the period from the first European invasions until today, confronting written, iconographic and oral sources in order to tell a polysemic history of Pantanal.

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Paper 3:

Alicia Gutting, KTH Royal Institute of Technology Stockholm, Sweden

Cooling water wars on the High Rhine

Nuclear power plants, like coal-fired power plants, rely on immense amounts of cooling water. For this reason, these power plants are usually built close to large water bodies such as the Rhine River. In the 1960s and 1970s, energy companies were tempted to build nuclear power plants without external cooling systems as the water resources of the Rhine were deemed to be sufficient. Especially Switzerland had ambitious plans for developing a nuclear power park, but France and Germany were equally interested in the nuclear exploitation of the Rhine. Switzerland, France, Germany and the Netherlands planned to build roughly around 25 nuclear power plants in the Rhine River basin (including the Aare and the Moselle), which would have made the Rhine one of the most nuclearized river basins in the world. The different national plans collided with each other at times and led to conflicts over water resources between the riparians.

This paper deals with the problem of fair water allocation between Germany and Switzerland in the 1960s and 1970s. While Germany wanted to equally share the water of the Rhine for cooling purposes, Switzerland claimed the water of the Aare fully, which is the water richest tributary of the Rhine. The different perspectives on water ownership and the extent to which natural resources could be fairly distributed led to the establishment of a new cooling water regime on the High Rhine. In this article, the different risk perceptions as well as conflicts and debates of the individual actors are examined in more detail.

0901-312 on Thursday, 24.08.2023, 11:15-12:45

UniS – A 022

An environmental history of mountain roads (H)

Organiser:

Tiphaine Robert, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany & FernUni Schweiz, Switzerland

Emma-Sophie Mouret, Université Grenoble Alpes, France

Chair:

Lucia Leoni, University of Fribourg, Switzerland

Commentator:

Romed Aschwanden, Institut Kulturen der Alpen, Switzerland

Abstract:

The panel addresses conflicts related to mountain roads from an environmental history perspective. Today in 2023, many roads in the alpine area were built or modernized in the first nineteenth century by liberal governments. Road construction in the mountains often leads to causes many controversies. Since the 1970s, conflicts related to mountain roads have increased because of the massive increase in automobile traffic and its nuisances, but also due to greater societal awareness of environmental issues.

Environmental history research on roads focuses on nuisances and setbacks that accompanied modernization [1]. Since the 2010s, these works have shown that environmental conflicts over roads did

not just emerge in the '70s, but that such conflicts have been a constant phenomenon. This body of research therefore, mainly deals with the road and its negative externalities, by examining its damaging consumption of space as well as social and political movements have opposed road construction [2]. The research approaches to roads are often limited to urban or rural lowland areas while mountain areas are rarely a central issue. Yet the relief, risks, and vulnerabilities associated with mountain areas represent a key aspect which differ from the roads in plains.

In this panel we propose identifying the controversies surrounding mountain roads in the Alps. While supposedly uniting territories and connecting plains with mountains, the history of roads show splits and pluralistic representations of the Alpine space, from exploitation to protection. As the historiography of roads reveals, the evolution of road infrastructure is far from being a linear phenomenon. With analyses from case studies of roads in France and Switzerland, contributors to this panel explore questions about the periods, scales, dynamics as well as conflicts and actors concerned with mountain roads from the 19th century to the 2020s.

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Paper 1:

Tiphaine Robert, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany & FernUni Schweiz, Switzerland

Rawil: the end of a tunnel. Geological obstacles, environmental opposition and political struggle: from obstinacy to abandonment of a mountain road tunnel project (1966-1986)

In the sixties, Switzerland started to build an ambitious road network. Its road network became one of the densest in the world. The Rawil tunnel was supposed to connect the cantons of Valais and Bern. The geological risks of tunnel boring (methane emissions from the rock, water infiltration, tectonic instability) have been known since the beginning of the project. As early as 1972, those responsible for tunnel planning spoke of the «extraordinarily difficult geological conditions» of the Rawil. The Federal Roads Office, the cantonal authorities, the commissioned engineers and the geologists worked to circumvent these problems by drilling an exploratory tunnel. In 1978, the drilling of the gallery caused cracks in the Zeuzier dam, which paralyzed the tunnel project. The Rawil tunnel project was finally abandoned in 1986 because of the associated risks and strong opposition from activists.

This case study shows typical dynamics of alpine road construction in the 1970's. Road projects were primarily planned in the 1950s and 1960s. In the 1970s, nuisances from automobile traffic were exploding (congestion, destruction of land, health problems) and the critics of big road projects became more audible. Many road projects became obsolete, but the authorities were reluctant to reconsider the often excessive, expensive or dangerous road projects. Based on archives from authorities (cantonal and federal) and from associations (Oberwalliser Gruppe Umwelt und Verkehr), interviews of actors and on a corpus of newspaper articles, my contribution aims to shed light on the reasons for such obstinacy, despite the obvious geological and environmental problems. Which actors support this project, regardless of costs, with what strategies and why?

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Paper 2:

Emma-Sophie Mouret, Université Grenoble Alpes, France

Road closure as a nuisance? Conflicts, strategies and issues of road closures in the mountains (1920-2020)

It may come as a surprise to consider road closures as a nuisance. However, it is justified in the mountains, where road closures involve costly and lengthy detours caused by the effects of the terrain and the concentration of roads in the valleys. In addition to being a logistical nuisance, road closures imply social

inertia due to the isolation they cause. Road closures in the mountains generate old, plural and original environmental conflicts.

In the French mountain areas, the inter-war years were marked by the success of road tourism on carriage roads built during the 19th century. In 2020, some of these roads are still used as the main access route. Although the economic models associated with the use of roads are changing, the propensity of closure situations to crystallise tensions and power relations is proven from the 1920s to 2020.

This reflection is based on road service archives, the press and oral interviews. It examines, over time, the propensity of road closures to constitute a nuisance. What actors, interests and power relations do these situations bring into tension? What does this reveal about the territories concerned? These questions complement the work of environmental historians about nuisances. They are also linked to recent research on environmental struggles by focusing on a configuration that has not yet been studied, namely struggles relating to the closure of a built rather than its opening. Finally, these reflections are part of the history of mobility through the lens of questions about the future of the automobile system.

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Paper 3:

Steve Hagimont, Université Paris-Saclay & Université de Versailles Saint-Quentin-en-Yvelines, France (V)

Open the access to the winter sports: the choice of the road (France, between 1930s and 1960s)

This paper intends to question the way in which the road has imposed itself as the preferred means of access to French ski areas. In order to do this, we will return to a pivotal moment: the period from the 1930s to the 1960s, when snow removal techniques and the increase in the number of cars in Europe made it possible to access the high-altitude snowfields by car, and when the French model of mountain development for alpine skiing took shape.

The culture of winter sports is also a culture of automobile, both participants in the «modernization» of the Alps. However, the road is not the only means imagined to access the snowfields. In development projects, automobile access is in fact counterbalanced by other means of collective transportation: trains, funiculars, rack-and-pinion trains and then cable cars. Why did the road take over? This question, the answer to which seems obvious, invites us to denaturalize the choice of the individual automobile. It leads us to consider the imaginations of the actors involved, in particular of those who have refused the automobile, as well as the political and financial strategies that have finally given precedence to automobile access. It allows us to understand the influence of foreign models on the definition of the French planning model.

The sources used will be the publications of the associations promoting skiing and winter tourism, the archives of the national and local services of the State which have evaluated the projects and exchanged with their carriers.

0902-458 on Thursday, 24.08.2023, 11:15-12:45

UniS – A-122

Melting glaciers: Last chances for science and tourism (H)

Organiser:

Roger Norum, University of Oulu, Finland

Chair:

Anna-Maria Walter, University of Oulu, Finland

Abstract:

Historically, mountain regions have typically been «discovered» by adventurers with scientific aspirations. In recent years, high-altitude spaces characterized by ice and snow around the world have become compelling destinations for both scientific research and leisure tourism. Actors in the Himalayas, the Alps and the Arctic, for example, often seek out such destinations with the «last chance» aim of either studying or visiting endangered glacier ecosystems. However, exactly how scientists and tourists co-exist (and might cooperate) in the same spaces remain under-researched and little understood. Both groups carry with them different perspectives and motivations into the field, approaching and envisioning geophysical places from different angles and positioning themselves in the wider societal debate of global warming in various ways. This panel encourages papers that investigate the links between these two seemingly distinct groups of actors, focusing not just on the disjoints and divergences, but on the potential interconnections and alliances, between them. Papers in this panel might focus on, for example, motivations of scientists working in glaciated areas; routines of studying or practices of experiencing high mountain glaciers; entanglements of science and tourism in Northern or colder regions; how scientific knowledge is acted upon in tourism contexts; representations of science/tourism in contexts of environmental change. We welcome papers that address contemporary empirical processes as well as analyses of historic predecessors.

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Paper 1:

Herta Nöbauer, University of Vienna, Austria (V)

Interrogating the relationship between sciences, glacier tourism and climate change in the Austrian Alps

My paper engages with the interrelationship between sciences and a ski resort company in the alpine cryosphere in Austria. I argue that by taking their interactions into closer consideration raises hitherto marginalized questions about the relationship between sciences, tourism and climate change. Based on my anthropological fieldwork, I explore the various ways in which sciences like glaciology, ecology and geology interact with the glacier ski resort in the Pitztal, in Tyrol. I will illustrate that these sciences contribute to the construction and maintenance of the glacier ski resort in multiple explicit and implicit ways. The research conducted on glacier ski resorts and the wider knowledge on glaciers as "endangered species" influences the decisions made and practices employed by the glacier ski company to counter rapidly retreating glaciers and dissolving permafrost, both considered as prominent signs of climate change. However, despite a certain societal power these sciences have, their knowledge is contested in multiple ways, be it between the disciplines or within a single discipline. In particular, diverging positionings of scientists towards glacier tourism and different scientific interests in the changing cryosphere are impacting on the ways of interaction with the glacier ski resort company. Scientific knowledge, in turn, is contested by vernacular forms of knowledge on the alpine cryosphere and even more so by the socio-economic interests of the glacier company and the Pitztal region. As a consequence, the company refers to exactly that scientific knowledge which corresponds to their own interests for empowerment and defence against environmentalist critics.

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Paper 2:

Emmanuel Salim, University of Lausanne, Switzerland

Climate tourism: Reflecting on scientific knowledge during vacation, or the example of glacier tourism

Tourism has developed around the idea of discovery, even around «scientific» research, as in the case of Horace Bénédicte de Saussure's ascent of Mont Blanc in the second half of the 18th century. More recently, many tourist sites, especially nature sites, have focused on the aesthetic value of the landscape. It is on this

basis that many glacial sites in the Alps have been built. However, the current glacial retreat is changing glacial landscapes and changing the perception of their visitors. It is in this context that the idea of last chance tourism is born, where tourists come to see a feature - usually natural - before it disappears. Thus, much research shows that visitors to glacial sites now come to see them before it is too late. However, beyond the idea of a last chance, qualitative research at the Mer de Glace, France's largest glacier, shows that visitors also come to understand the processes involved in glacial retreat, including a desire to better understand current climate change. This motivation shows that visitors are also interested in the scientific aspects of the glacier, recalling the early days of tourism in these places. The aim of this presentation is therefore to discuss the intersection of scientific tourism and last chance tourism and a current trend that could be described as 'climate tourism' around glacier sites.

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Paper 3:

Peter H. Hansen, Worcester Polytechnic Institute, Worcester MA, USA

Climbing-Science-Tourism and the Commercialization of Mount Everest

Scientists and tourists have co-existed on Mount Everest for the last hundred years. Since the 1920s and especially since the 1950s-1960s, climbers have established patterns for mountain tourism on Everest as well as shaped public perceptions of the mountain's significance as a site for scientific research. Surveyors, geologists, and naturalists on the earliest expeditions were joined later by researchers in human physiology and diverse fields related to the study of climate change. Early climbers were mountaineers who distinguished themselves from mountain tourists because they considered themselves scientific instruments by testing limits of being «first» at high altitudes. Later climbers and scientists not only benefitted from the infrastructure, facilities, and practices of mountain tourism but actively contributed to the commercialization of Mount Everest since the 1950s. Scientific efforts were frequently invoked as a rationale and justification for funding for expeditions (e.g. from both home governments and private foundations or individuals) and ascents and offered the potential to reach a wider audience through books, films, exhibitions, or media campaigns. The activities of these climber-trekker-tourists not only transform mountain communities in the region but also sustain scientific endeavours on global-local scales. Awareness of changing conditions in the mountains has once again led recent climber-tourists to view themselves as scientific instruments, as «witnesses» to climate change and «citizen-scientists» actively contributing to ongoing research agendas. Paradoxically, critiques of over-tourism on Everest often downplay or ignore the role of scientific researchers in creating these conditions and pay insufficient to the contributions of local communities to the work of climbing-science-tourists.

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Paper 4:

Roger Norum, University of Oulu, Finland

High Anxiety: Knowledge Production and Consumption among Scientists and Citizen Scientists in the Last Chance Arctic

Climate and biodiversity hotspots in many parts of the world have become attractive places for both scientific research and leisure tourism. Yet when science and tourism are considered in tandem, it is often simplified to how scientific knowledge can help the tourism industry to evaluate and reduce its environmental footprints, or how tourists can be used as instruments for collecting citizen science data. While often portrayed as operating in separate social realities and engaging with fragile ecosystems for distinct purposes and outcomes, however, science and tourism overlap in practice in many ways (Slocum et al 2015). Research on the sustainability of sensitive ecosystems has recognised the importance of unpacking tensions and encouraging mutual engagement and collaboration between such actors, pressuring science and tourism to adapt themselves vis-à-vis sustainability practices (Buckley 2011). In this paper, I outline a theoretical approach that epistemologically links the two through an ethnographic study of citizen science-minded tourists and environmental data service providers in the remote, glaciated

landscapes of the Svalbard archipelago in the Norwegian Arctic. Though a consideration of the online and offline modes of knowledge production and consumption of these two specific industry actors, I show how this last-chance ecosystem is inhabited, experienced and represented by these different stakeholders in often similar ways and to varying ends. The paper aims to develop an emerging field of study, led by anthropologists, ecologists and environmental humanities and STS scholars, that looks at the crossovers of science and tourism to illuminate how they can together build sustainable planetary practices.

0904-446 on Thursday, 24.08.2023, 11:15-12:45

Unitobler – F 005

Land Reform, Agrarian Colonization, and Environmental Knowledge in Twentieth-Century Latin America

Organiser:

Georg Fischer, Aarhus University, Denmark

Carolina Hormaza, University of Bielefeld, Germany

Chair:

Antoine Acker, Geneva Graduate Institute, Switzerland

Abstract:

The processes and practices of agrarian colonization have fundamentally changed the landscape and land use in Latin America since the mid-20th century. In agrarian history, economy, geography and sociology, the term «agrarian colonization» has several dimensions and describes both spontaneous migratory movements to new frontier zones and resettlement programs promoted by state or private actors. State-led agrarian colonization was a key element in conservative programs to solve the agrarian question. Rather than promoting structural changes to unequal land distribution, the colonization of tropical landscapes promised to redistribute populations and alleviate the perceived demographic imbalance between regions.

Throughout the twentieth century, both land reform and agrarian colonization were subjects of knowledge production and attempts at theorization. Scientific and expert knowledge about land use changes associated with agrarian colonization contributed to the geographical measurement of the continent's interior and the description of its ecosystems, but also made claims about environmental attitudes and adaptability of social and ethnic groups.

Our panel examines forms and uses of environmental knowledge in the context of agrarian colonization and land reform in post-World War II Latin America. In its composition, the panel explicitly focusses on three different, yet entangled scales: a key institution, the Land Tenure Center, which strongly influenced debates across the continent (Hormaza); a Colombian region which became the object of intense knowledge production in the context of agrarian reform (Franco); and a smaller-scale case study in eastern Bolivia, which exemplifies how environmental knowledge informed rural development interventions aiming at Indigenous «integration» (Fischer).

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Paper 1:

Carolina Hormaza, University of Bielefeld, Germany

Landscape reduced to tenure: the work of the Land Tenure Center and the agrarian question in Latin America, 1964-1974

In 1951 the Conference on World Land Tenure Problems was held at the University of Wisconsin. The

conference was concerned with land tenure conditions in colonial countries had become independent after WWII. One of the recommendations of the conference was the creation of the Land Tenure Center. The Land Tenure Center was established only ten years later in 1962 as one of the strategic projects of the Alliance for Progress to resolve the agrarian question in Latin America. In just ten years, under the USAID funding this centre established offices in Colombia, Chile, Brazil, and Bolivia. In each country, agricultural economists researched with graduate students and local officials on land tenure relations. In this presentation I argue that the LTC had a strong influence in reducing the agrarian problem to a landlessness issue and in promoting agrarian colonization. Through correspondence between LTC staff and local institutions, I show how through different programs and activities in a short period, the LTC became a central actor in the local debate on how to resolve agrarian conflicts in Latin America.

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Paper 2:

Juan Camilo Franco, University of Wisconsin, Madison, USA

A reformed pasture. An intervention on the ecologies of the Agrarian Reform in Colombia's Caribbean Coast (1961-1984)

From 1961 to 1980 many Agrarian Reforms reshaped Colombia's rural landscapes and ecologies. Despite a huge corpus of studies on Latin America's agrarian reform and its links to inequality and violence, scholars have been not concerned with the material and environmental consequences of the reform. By focusing on Colombia's Caribbean coast, a hotspot of peasant struggles in the 1970s and of violent dispossession since the 1980s, I argue that pasture plays a fundamental role in the transformation of a region. Ultimately, pasture is an example of how scientific practices are materialized in seeds designed to make a region economically productive and is linked to the aesthetics of violence and conflict, as argued by others. This study examines scientific studies on seeds, economical studies about cattle, and pamphlets and newspapers to show how an ecology is materially remade and politically embraced or contested.

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Paper 3:

Georg Fischer, Aarhus University, Denmark

Agrarian colonization, environmental knowledge and Indigenous 'integration'. The Cotoca Project in eastern Bolivia, 1955-62

Following the Revolution of 1952, the Bolivian government initiated one of the most ambitious land reform processes in Latin American history. Whereas in the highlands land reform led to substantial redistribution of formerly idle hacienda land and the expansion of smallholder farming, the eastern lowlands saw increased efforts at stimulating agrarian colonization by foreigners and domestic settlers alike. In addition to increasing crop production, the colonization of the east also served the goal of uplifting the Andean Indigenous population from its perceived state of socio-economic «backwardness». This paper examines Cotoca, an agrarian colony established in 1955 by national and international development agencies, as a site of knowledge transfer and negotiation. Drawing on reports and letters by experts from various UN organizations, it explores how ideas of Indigenous «integration» informed visions and practices of rural development. Modernist designs envisioned specific pathways towards rural modernity, yet these strategies were also challenged and transformed through local encounters. In particular, the paper will discuss how knowledge about lowland ecologies and environmental stereotypes about highland dwellers framed how experts envisioned, designed and implemented this development intervention.

0905-119 on Thursday, 24.08.2023, 11:15-12:45

Unitobler – F 013

The Planet: Environmental Conflicts and Political Spaces in History

Organiser:

Lucas Mueller, University of Geneva, Switzerland

Chair:

Libby Robin, Australian National University, Canberra, Australia

Presenters of the Roundtable:

Lucas Mueller, University of Geneva, Switzerland

Sabine Clarke, University of York, United Kingdom

Christophe Bonneuil, School for Advanced Studies in the Social Sciences (EHESS), France

Simone Müller, University of Augsburg, Germany

Etienne Benson, Max Planck Institute for the History of Science, Germany

Andrea Westermann, University of Konstanz, Germany

Abstract:

As planetary crises are looming large historians have worked hard to write «the environment» into history. However, there remains a historiographical disjunction between such environmental histories and histories of politics, science, ... in short, human affairs. This disjunction reflects a belief that the political scales are incapable of properly responding to the planetary scale of environmental processes. For example, Dipesh Chakrabarty argued that the scales of the planetary environment and international politics have in fact been temporally irreconcilable, mobilizing German intellectual history to resolve this quandary. Others, such as Naomi Oreskes or Timothy LeCain, have turned to science to deliver one truth, or at least one consensus, about the planetary nature of the environment. Instead of taking such separations between environmental and human scales for granted, this Roundtable seeks to thoroughly historicize such supposedly separate scales. Discussants from international and environmental history as well as the history of science will argue about historical approaches to understand who and what configured political and environmental spaces in ways that ultimately became irreconcilable, or at least so limited that political action seems powerless to address the profound challenges of the global environment.

0906-378 on Thursday, 24.08.2023, 11:15-12:45

Unitobler – F 005

Water Conflict, Negotiation, and Mediation in Alpine and Pyrenean areas between the 15th and the 20th century (H)

Organiser:

Salvatore Valenti, Ca' Foscari University of Venice, Italy

Chair:

Giacomo Bonan, University of Turin, Italy

Abstract:

Society and water are intrinsically linked, interdependent, and mutually constituted. Water is a crucial element for human life and for any social production. It flows through mountains, valleys, and cities, connecting distant places and people in an intricate bundle of relationships. Human societies continuously

manipulate water for these reasons. As a result, the right to access, techniques and technologies to distribute it, and for what purpose are fields for conflict, negotiation, and mediation among different social groups.

Combining approaches from economic, political, and social history and archaeology, the proposed session will examine the multifarious processes of social inclusion and exclusion, the distribution of benefits and burdens, and the mediation of various interests on and through water resources in the Alpine and sub-Alpine Italy, as well as in the French Pyrenees over the long term. Water was abundant in these areas but accommodating the interests of all the stakeholders, and territories involved was a complex process. Specifically, the session explores how different institutions and groups access water, preserve, contest, and negotiate water rights and water uses in a dynamic that involved economics, politics, law, and material aspects. As a result, the session contributes to our understanding of the strategies and methods past societies have developed to manage and to govern water, a resource that is both vital and limited.

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Paper 1:

Salvatore Valenti, Ca' Foscari University of Venice, Italy

Water conflicts in late nineteenth-century Italy: the struggle for Milan's aqueduct, 1881-1891.

The 1880s were a decade of intense changes in water access, use, and distribution in Italy. In the context of evolving legal and institutional principles, ancient and established water rights, privileges and new laws, users, and uses the Italian society was still seeking an ordering principle for water policy.

Hydroelectricity's first steps, the sanitation of cities, and the increasing of the irrigated surface put pressures over existing users and established uses of water. In this process, many actors competed for the exploitation of a limited set of water resources. A private company and Milan city council projected to build an aqueduct using the springs of the river Brembo in the province of Bergamo to supply fresh water to the city. Municipalities, irrigation consortia, and of the Province of Bergamo all opposed the project, which, they argued, put at risk the valley's entire economy.

Throughout the analysis of municipal minutes, political negotiations, changes to the project, legal trials, rulings of public agencies, and pamphlets this paper will reveal a complex bundle of material interests, and their difficult coexistence over a crucial but limited element for any aspect of human society.

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Paper 2:

Rachele Scuro, Ca' Foscari University of Venice, Italy (V)

Moving mills or irrigated moats? The role of water between economics and environment in the early modern Venetian State.

At the end of a fast expansion in the northern Italian Peninsula, by the 1420s Venice, passed from being a sea city to a State characterised by a variety of environmental habitats, from the Alps to the plains of Veneto. The multiplicity of settings went hand in hand with areas diversified by their economic specialisations and use of resources. The main cities and towns at the foot of the mountains saw a sturdy manufacturing presence, while the Dolomites and plains focused on commodities and connected specialised industries. In all cases, water was the key element.

In the beginning, the Serenissima policy toward the resource remained mild, yet the situation changed during the 1550s when water became a matter of state, controlled by central magistrates. From that moment on, any subject should have asked (and paid a fee) to be granted water rights.

This paper will investigate how and to what aims water was used in the Venetian Terraferma in the early modern period. It points to three main goals: first, to identify the social groups interested in the exploitation of water, and to what purpose according to the environmental and economic characteristics of the areas. Secondly, to pinpoint where and how any specialisation occurred. Finally, to overview how Venetian central offices would impact the local balance between economics, as well as social and jurisdictional conflicts through the concession (or not) and to whom of water, and how they were willing and/or able to govern water demand and management.

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Paper 3:

Matteo Di Tullio, University of Pavia, Italy

Contested Water. Natural resources, economic activities, and sustainability problems in northern Italy during the early modern period

This paper aims to present the main objectives and the provisional results of a project on the management of natural resources and the emergence of sustainability problems in early modern Lombardy, in northern Italy. Specifically, I will present an analysis of the water conflicts in the districts of Milan (State of Milan) and Brescia (Republic of Venice), which I am conducting through systematic reading of the primary sources produced by some institutions and large landowners in those territories. In the case of Milan, I am considering some important «welfare» institutions, like the Misericordia consortium and the Quattro Marie schola, while for Brescia I am focusing on the local Ospedale Maggiore. In both cases, I will have the opportunity to provide a long run analysis from the late fifteenth to the end of the eighteenth century. These case studies are particularly suitable to my aims due to the abundance and the seriality of documents still preserved at the local archives.

In this paper, I will focus on how I am collecting, processing, and analysing these records in order to study sustainability in the past. The systematic study of these litigations, in fact, provides the possibility to understand when and in which period some management issues happened, for which reasons they occurred, which actors were involved and so on. In other words, the quantification and qualifications of the water conflicts provide the opportunity to reconstruct the environmental management in a multi-perspective way and to consider the intricate nature of the emergence of environmental, economic and social sustainability problems.

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Paper 4:

Anna Maria Stagno, University of Genoa, Italy

The materiality of conflicts and the shared use of water. The canals of Callastre, Eyne and Rondole between the 18th and 20th centuries

The paper aims to explore the connection between rights and materiality, analysing the practices of distribution and sharing of water that, through the functioning of some channels that various communities linked to the hamlets of Rondole, Callastre, Llo and Eyne in the French Cerdagna, used for the irrigation of meadows and fields. These irrigation channels in fact, originated from the same streams with a complex repartition in each channel, but then it is also evident that in many parts, the channels were supplied with each other.

The archaeological investigation of the courses of the aqueducts allowed to document not only the complex systems of diversion and re-introduction of water from one canal to another, but also the numerous transformations in the waterways and diversions - including traces of destruction of one of the channels. Traces interpreted as the result of a dense negotiation and conflictuality around water resources. The analogous conflictuality emerges from documentary sources and oral memory linked to these channels. Investigating the materiality of the practices to share and divide water and their transformations

allows us to grasp not only the profound materiality connected to the exercise of possession and vice versa (how changes in access rights and usurpations are reflected in the material evidence), but also put in question the dichotomic consideration of the mechanisms of conflictuality and solidarity, as the two appears to coexist in the same time, and showing the complexity of the social relationship around the shared use of resources, beyond the rhetoric of conflicts which emerge by archival documentation.

0908-319 on Thursday, 24.08.2023, 11:15-12:45

Unitobler – F 023

Pastoral mountains in the modernization era. A historical inquiry into the environmental agency of cattle breeding research and extension (1960s-1990s)

Organiser:

Charlène Bouvier, Université Lumière Lyon 2, France

Chair:

Floor Haalboom, Erasmus University Rotterdam Medical Center, The Netherlands

Abstract:

As French cattle-breeding accelerated its intensification process in the 1960s, mountainous pastoral areas faced specific social, economical, and technical issues regarding their ability either to join the mainstream pattern or to successfully diverge from it. This session aims to explore how breeders, extension agents, and scientists perceived and dealt with those areas and their economic destiny during the modernization era. Was animal farming considered bound to be confined to the plains where it could be intensified and industrialized? Was there a way to develop alternative schemes? With which animals, what kind of farming, for which development? Should public scientific and extension organisms help marginal systems - or just offer them palliative care?

Our project is based on the hypothesis that bottom-up technical and scientific innovation was key in the making of viable alternatives. At first, only a few agronomists, animal sciences specialists, and extension agents, saw an object worth of their attention in those pastoral systems. While advising them in their adaptation processes, they were confronted to the limits of methodological reductionism, enhancing interdisciplinarity and systemics applied to farming systems in the 1970s-1980s, leading them to encounter the emerging concept of «environment», the relevance of hardy breeds and biodiversity, leading to a reassessment of the trajectory of cattle-farming in the 1990s.

Emphasizing diachronic interactions between sociotechnical, cognitive, and environmental dynamics in pastoral mountains, within a holistic and comparative approach, should allow us to highlight the relevance of marginal experiences in the making of post-industrialist agricultural and food systems.

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Paper 1:

Pierre Cornu, Université Lumière Lyon 2 & INRAE, France

The legacy of the French cattle breeding law of 1966 in pastoral mountains. Applied animal genetics between general and situated rationality

The French cattle breeding law of 1966 establishes an original science-based and policy-oriented genetic framework applied to cattle-breeding. The aim of the law is to enhance the modernization of the milk and meat sectors, by orientating the reproduction of cattle under a universal system of genetic rationalization. But the territorial implementation of the system, linked to the paradigm of isonomia inherited from the French Age of Enlightenment, leads to the unexpected and unintended possibility of a re-balancing

process from productive intensification to cognitive intensification in pastoral mountains, helping some researchers, extension agents, and breeders, to develop original models based on grass, hardy breeds, and quality labels. This process is very marginally shaped by ecological thinking at the beginning. But it certainly tends to develop a holistic way of thinking, giving birth to an original «engineering» conception of the environment, that will prove quite performative in the reshaping of agricultural and food policies when environmental issues will become more central in the global political agenda, inciting mountainous experiences to «climb down» into the plains of mainstream development.

Based on scientific and technical archives and interviews, this paper aims to highlight in a comprehensive way the rise of environment as an object of concern and care.

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Paper 2:

Charlène Bouvier, Université Lumière Lyon 2, France

Managing permanent grasslands and rangelands of the Larzac in the modernization decades. The challenges of understanding and promoting a mediterranean herbaceous socioecosystem

If, in the 1960s, temporary grasslands are presented by scientists and extension agents as the main mean to intensify forage production, this model is not adapted to mountainous environments. Pastoral breeding systems such as the ovine one of the Larzac, a mountainous area in the south of France, rely on permanent dry grasslands and rangelands. Because of their nature, those composite Mediterranean grazed swards are difficult objects to grasp for agronomists who are not cognitively armed to study an object regulated by numerous biological interactions.

To fight depopulation and land abandonment in this region, a multidisciplinary research program is set in the 1970s to elaborate viable intensified breeding systems in this environment. Having to compose with the existing composite swards leads the scientists, extension agents and breeders invested in this program to develop a systemic approach which progressively enables the understanding of the interactions between the breeding systems and their environment.

As the environmental externalities of breeding intensification increase and become a societal concern in the 1990s, those alternative mountainous systems based on the exploitation of grass prove to be adapted to the new challenges that breeding systems face, such as protecting biodiversity and reducing greenhouse emissions and agricultural pollution, giving an edge to the bearers of heterodox systemic views in the global conversation about sustainability.

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Paper 3:

David Drevon, INRAE, France

The modernization of sheep production in Northern Massif Central: Historical and ecological assessment of a development scheme (1960s-1990s)

At the beginning of the 1960s, the traditional agropastoral system of the Domes Mountains started to unravel, threatening the landscapes of mountain pastures and local sheep breeds. With the support of the Somival, a state-run development company, the Auvergne sheep breeders opted for the intensification of sheep production. Supporting research on hardy breeds and funding the transition towards specialization, the Somival promoted the improvement of these breeds through rational breeding. The Rava breed was thus promoted as a «lamb-producing machine». Economically, a downstream line was created to sell ewes. Inspired by the British hill farming system, the aim of the scheme was to specialize the Massif Central in the production of hardy ewes and to sell them in the French plains. However, due to the development of the Common Market, the project had to be re-oriented.

Although these intensification projects have come up against the economic realities of the sheepfolds, the means used for modernization have unexpectedly enabled local breeds to find their economic «niche» by sustaining their hardiness, a quality highlighted from the 1990s onwards to promote the environmental utility of sheep in summer pastures, especially in natural parks.

The history of hardy sheep breeds bear witness to an ambiguous relationship between livestock farming systems and modernization. This work therefore traces the sociotechnical, political, and environmental dynamics around these breeds, between national issues and local adaptations aimed at sustaining livestocks in their socio-ecological systems.

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Paper 4:

Pierre Le Gall, Laboratory of Rural Studies of Lyon, France

Cattle breeding in the Massif Central at the center of a research swaying between standardization and adaptation to mountainous environment (1960s-1990s)

In 1964, in the wake of the French agricultural modernization laws, Robert Jarrige, then a zootechnician at the INRA, takes over the management of a new Zootechnical and Veterinary Research Center in Theix. In 1967, an experimental breeding station is set up in Marcenat, a village within the mountain pastures of Auvergne. From then on, the Institute agents build up close contacts with local professional actors for the purpose of increasing the profitability of livestock farming. Grass quickly becomes the central element of their attention, from the improvement of forage yields and the appropriate protein balance, to the use of grasslands by various cattle breeds. Early links are developed with a research laboratory on cheese production created in Aurillac, based on the study of the effects of silage on the quality of origin certified raw milk cheeses.

There is thus reason to question the historical relevance of such a sustained deployment of public scientific and financial means towards the «margins» of the French livestock farming system, setting those «highlands» into an open laboratory for a multidisciplinary, systemic and constructivist approach to mountain cattle farming development, opening the possibility of a new synergy between quality and sustainability in the 1990s.

0909-418 on Thursday, 24.08.2023, 11:15-12:45

Unitobler – F-105

Landscapes and Infrastructures of Extraction (1920-1980)

Organiser:

Lena Krause, University of Freiburg, Germany

Chair:

Melanie Arndt, University of Freiburg, Germany

Abstract:

From mountains to flatlands, the pursuit of natural resources such as oil or minerals is a fundamental trait of human societies. Mining for oil and minerals like copper has led to fast and drastic changes in regions which have become landscapes of extraction. Nature has been deeply affected and scarred by dense infrastructure such as efficient transportation systems created for the removal of earthly resources. Such transportation systems also provide energy, facilitating raw materials and a connection to labour markets. Power plants, energy systems, water supply, and heavy machinery have to be implemented or expanded. In addition to the mining and processing sites, infrastructure for workers and families is required. In some

cases, whole cities, with civil centres, hospitals, or schools are built within a few years out of nothing. In densely populated areas, extraction leads to rapidly changing communities and often new social conflicts. During the 20th century, new technologies evolved and allowed for the removal of resources on a larger scale, but also brought about heavy consequences such as soil, water, and air pollution. All these activities correlate with climate change, as the burning of fossils has led to global warming. In order to mitigate these problems, copper is crucial for «green technologies» but comes with a cost at the local level. The panel will explore and compare a variety of landscapes of extraction, such as oil fields in the Amazonian region of Peru, Ecuador and Colombia and a copper mine in Papua New Guinea. The contributors will investigate social and ecological changes in these places from an environmental history perspective.

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Paper 1:

Lukas Becker, University of Geneva, Switzerland

Landscapes of Resistance – Oil Extraction, Environment, and Labor Movements.

The extraction and production of oil creates a particular environment, an «ecology of oil», which sees a wholesale transformation of both land tenure patterns, landscape, and social relations geared towards the extraction of oil. While petroleum extraction has created great wealth, it often leaves behind a «sacrifice zone», lastingly changed by pollution. Among abundant examples across the world, the Colombian oil city of Barrancabermeja offers a particular panorama of these dynamics. Born as a concession of Standard Oil of New Jersey in the 1920s, the city was shaped by a politics of enclave, featuring a system of racial hierarchy, violent repression, and unequal exposure to the toxic environment of oil extraction. However, this environment also provided a space for radical workers' and social movements to emerge, challenging the reigning order of petro-capitalism and creating a culture of anti-imperialism and nationalism in the sense of sovereignty over land, resources, and welfare. Thus, oil extraction produced an environment of oppression but also of resistance, of toxicity but also of alternative democratic visions. The aim of this intervention will be to articulate this relationship between the environment and the political and social movements that arise around the extraction of oil and both the limitations and possibilities that it entails. The case study of Barrancabermeja allows for a local analysis of how humans shape the environment, but also how such environments in turn shape human beings, their lives, and their histories.

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Paper 2:

Lena Krause, University of Freiburg, Germany

From Ertsberg to Hamburg: Infrastructures of Copper Mining

In 1936, members of the Dutch «New Guinea Petroleum Company» embarked on an adventurous trip into the Carstensz highlands of the western region of New Guinea Island. On the way to the 4884-meter peak, the geologist J. J. Dozy discovered an outstanding formation of copper containing magnetite and chalcopyrite, shortly after named Ertsberg (Erts = Dutch for ore). Due to the outbreak of World War II his findings did not receive much attention. It was not until 1959, when a new expedition rediscovered the minerals with the help of local knowledge and infrastructure. The newly formed Freeport Indonesia Company began to construct infrastructure to explore the copper and gold deposits: A 63 kilometres long road through swamps, rainforest and mountain terrain was built in order to connect the mine and processing sites with the sea. Additionally, a harbour, an airplane runway and two townships were built for about 2000 people. The material was delivered by helicopters from Darwin, Australia, and later by ships. Heavy rainfall, rivers, and the geography made the project an extremely challenging infrastructure project. Since the beginning of the mining in 1972, the 130 meters high Ertsberg turned into a two kilometres deep hole. Copper concentrates were shipped to Japan and the Norddeutsche Affinerie in Hamburg, one of the largest refineries of the world to fulfil the European industries' demand for copper. This paper analyses the exploration and construction history of the Ertsberg and investigates social and environmental consequences of copper mining in the area.

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Paper 3:
Onur Inal, University of Vienna, Austria

The «Coal Line»: Energy Transportation and the Efforts to Transform Turkey to a Fossil Fuel Country in the Interwar Period

On November 19, 1936, a grand celebration was held at the Ankara Railway Station, welcoming the first train loaded with coal from the mining town of Filyos on the Black Sea coast to the capital of the young Turkish Republic. A year later, an extension to Zonguldak, an important city along the «coal cost», was completed. The inauguration of the Ankara-Filyos-Zonguldak line was an essential component of infrastructural development that aimed to create a landscape of energy flows between the mining regions of Anatolia and the capital city. Referred to as the «coal line», the 240-kilometer-long Ankara-Filyos line supplemented and complemented the «iron» and «copper» lines connecting, respectively, the iron ores located in Malatya and Sivas in Eastern Anatolia and the copper ores located in Diyarbakir in Southeastern Anatolia with the capital city. It allowed anthracite coal to be transported cheaply and reliably and contributed to Ankara's industrial and economic growth.

In my paper, I will examine the development of the Ankara-Filyos line to provide new insights into how technology, as a powerful agent, reshaped the socio-ecological landscapes in early Republican Turkey. I will discuss how the Ankara-Filyos «coal line» helped initiate the transition to a fossil fuel economy and the social, economic, and ecological consequences it generated. Finally, I will argue that the cheap and abundant supply of anthracite coal, while helping promote industrial growth and turn a rural economy into an urban one, had a human and environmental cost, which national history writing has so far glossed over.

0910-C03 on Thursday, 24.08.2023, 11:15-12:45

Unitobler – F-113

Mountains at war

Organiser:
ESEH Programme Committee

Chair:
Oksana Nagornaja, University of Tübingen, Germany

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Paper 1:
Daniel Marc Segesser, University of Bern, Switzerland

Visualizing warfare in the mountains: What photographic records do and do not tell about war in high altitude on the Stelvio frontline 1915-1918

Based on the rich photographic records from the Swiss Federal Archives and Moritz von Lempruch's 1925 publication «Der Koenig der deutschen Alpen» it is the aim of this paper to analyse and discuss the content and impact of photographic records produced in the context of the war on the Stelvio frontline between 1915 and 1918. The paper will look at the aspects about which these records pass on information about the war in high altitude, how this information is presented and transported, how the environment takes its place in this context, what aspects these records do not contain and what the reasons are for this latter fact. It finally wonders to what extent these images shaped the way that academic discourse as well as

public memory have perceived warfare in the mountains during the First World War over time.

A video available digitally in advance will present the richness of the photographic records available.

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Paper 2:

Alejandro Pérez-Olivares, University of La Laguna, Spain

Integrating landscape to defend the island. The Vilaflor road and its environmental impact during the Second World War.

With 3,715 meters at its top and situated in the very centre of the island of Tenerife (Canary Islands), the volcanic formation Teide is the highest peak in the Spanish orography and one of the most defining elements in the Canarian identity. Both the settlement patterns and the dynamics of mobility between one coast to another and from different heights, and also the agricultural practices can be hardly explained if the orography is not considered. The centrality of this very particular mountain has resulted in some undeniable implications, especially when the people of Tenerife prepared its defences in the event of invasion.

This paper explores the impact of military fortification in the Canary Islands during the context of the Second World War. While the Spanish dictator Francisco Franco hesitated to abandon his neutrality and to join the Axis forces, the Canary Islands archipelago was planned to be invaded by the Allied. A variety of fortifications was thus designed by the Army Corp of Engineers, including coastal artillery batteries and bunkers. But, how can be troops moved quickly from one point to another across a volcanic island? This paper will focus on the construction of the Vilaflor road on the slopes of Mount Teide from 1940 to 1943. The use of force labour to complete this key element for military defence strategy and its impact on water channelling will be considered in this study to explain the significant role of resource management in the political imposition of Franco regime.

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Paper 3:

Margaret Sutton, Indiana University, USA

«Freedom of the Hills»: The 10th Mountain Division and the Reimagining of the Vertical Frontier

When Frederick Jackson Turner proclaimed that the American «frontier has gone» in 1893, he did more than impose an ethnocentric history on land that had never been «open» in the first place. This paper argues that he also forgot to look up. In the decades following Robert P. Porter's 1890 Census Bulletin and Turner's seminal musings, upper class Anglo-Americans increasingly turned to vertical landscapes in response to the social, economic, and cultural shifts of modernity, thereby claiming new frontier space for their discovery.

This paper situates the 10th Mountain Division at the center of that story. Much has been written about the accomplishments and legend of the American «ski troopers»; far less on the historical significance of the narratives and identities they constructed as soldiers, recreationists, and men in the mountains. This paper argues that understanding who the 10th soldiers thought they were reveals much about the intersection of nature, sport, and culture in twentieth century America. Drawing on oral histories, newspapers, letters, and memoirs, this study features the ways 10th soldiers represented themselves in the mountains: as elite adventurers, as community members, as pioneering warriors, as safeguards of democracy, while also placing them within their broader cultural, political, and environmental contexts. At its root, it is a story about storytelling—namely, the construction and memorialization of 10th Mountain Division soldiers' individual and collective identities; more broadly, it is a study of the centrality of mountains in the shifting sociopolitical landscape of modern America.

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Paper 4:
Corinna Röver, Linköping University, Sweden

Human-Animal Relations in the Mountains of Northern Europe, 1940-1945

This paper explores human-animal relations in the wartime European Arctic between 1940 and 1945. During World War II, the region's mountainous border areas separated territories of military occupation from those of neutrality and military conflict. The mountains of northern Europe became places of combat, migratory routes and barriers of war simultaneously. While severely affected by the war, the physical characteristics of the remote mountainous border regions between northern Norway, Sweden and Finland in turn impacted the movements and interactions between local and foreign humans and animals. A diverse set of humans - including the local original population and newcomers like foreign soldiers and prisoners of war – as well as local and imported domesticated animals and wildlife suddenly cohabited the region. Their encounters and relations are under-researched, and this paper aims to address this gap. Reindeer and their indigenous Sami herders largely kept their cross-border mobility despite the war and its ensuing border closures, which is why they serve as a point of departure for this presentation. Other forms of human-animal relations in this wartime context will be considered, too. Different types of relations between humans and animals shaped everyday life and the war experience of all parties involved. How did humans document these interactions, and what kind of social meaning did they ascribe to them? The aim of this research is to contribute to a more integrative human-animal dimension in the historiography of World War II in Sápmi, the cultural Sámi area spanning from Norway to the Russian Kola-peninsula.

0911-163 on Thursday, 24.08.2023, 11:15-12:45

Unitobler – F-121

Book lounge: The League of Nations and the Protection of the Environment

Organiser:

Omer Aloni, Peres Academic Center, Rehovot, Israel

Presenter:

Omer Aloni, Peres Academic Center, Rehovot, Israel

The League of Nations and the Protection of the Environment

Abstract:

In the history of how law has dealt with environmental issues over the last century or so, the 1920s and 30s and the key role of the League of Nations in particular remain underexplored by scholars. By delving into the League's archives, my new book uncovers the story of how the interwar world expressed similar concerns to those of our own time in relation to nature, environmental challenges and human development, and reveals a missing link in understanding the roots of our ecological crisis.

Charting the environmental regime of the League, my book sheds new light on its role as a centre of surprising environmental dilemmas, initiatives, and solutions. Through a number of fascinating case studies, the hidden interests, perceptions, motivations, hopes, agendas and concerns of the League are revealed for the first time. Combining legal thought, historical archival research and environmental studies, a fascinating period in legal-environmental history is brought to life.

0912-223 on Thursday, 24.08.2023, 11:15-12:45

The «Visual Turn» in Forest History: Photographs as Sources for forest socio-economic practices and representations

Different World Session: Workshop

Organiser:

Michael Flütsch, University of Bern, Switzerland

Workshop leaders:

Michael Flütsch, University of Bern, Switzerland

Martin Stuber, University of Bern, Switzerland

Presenters:

Roberta Biasillo, Utrecht University, The Netherlands

Michael Flütsch, University of Bern, Switzerland

Martin Stuber, University of Bern, Switzerland

Péter Szabó, Czech Academy of Sciences, Průhonice, Czech Republic

Anna Varga, University of Pécs, Hungary

Abstract:

This experimental session aims to reconstruct forest utilisation practices and rural social conditions through the historical source of photography. Three presentations of 20 images, each photograph shown for only 20 seconds (PechaKucha), are being commented by the respective presenters. Thereafter, a commentator points out the core topics of the presentations. With this cutting-edge method, the organizers aspire to bring more dynamism into the presentation process itself and the subsequent discussion with the audience. Furthermore, we would like to connect to the original aims of photography – convey an impression and a taste of the past. The speed of the comment on each image mirrors the immediacy of the visual communication.

The focus of the session lies on practices of timber harvesting and other forest uses. Furthermore, it deals with the associated forms of forest management and actors involved. The images provide revealing insights into the everyday history of rural communities e.g., information about tools, work clothes, food or means of transportation. Moreover, these photographs often document a combination of traditional and modern practices (Gleichzeitigkeit des Ungleicheitigen), staged and spontaneous situations.

The session finally reflects on the methodology of historical source criticism in the context of forest-historical image sources: What was the intention behind the selected photographs? How can the selected images be in conversation with the emerging use of images to stress transformation over time in the context of climate change?

0913-497 on Thursday, 24.08.2023, 11:15-12:45

Unitobler – F-123

Swisstopo Workshop

Organiser:

swisstopo, Switzerland

Chair:

Felix Frey, Federal Office of Topography swisstopo, Switzerland

Presenters:

Raphaël Bovier, Federal Office of Topography swisstopo, Switzerland

Holger Heisig, Federal Office of Topography swisstopo, Switzerland

Elias Hodel, ETH Zurich, Switzerland

Abstract:

Geodata can be a powerful source of historical information. Maps, aerial images, and other geodata not only unearth oft-forgotten spatial relations and surroundings relevant to understanding historical actors. Since private and state institutions steadily produced geodata for centuries, historical map series and the like also allow for diachronic analyses in different fields of humanities and science.

The workshop approaches geodata of the Swiss alps and plains from different angles. In a first part, the Participants explore the opportunities, challenges and pitfalls of working with geodata as a historian. What do maps and aerial images show, what are they silent about, and what might they hide? How can researchers find out more about the heterogenous data that often stands behind a seemingly homogenous map? And how can I get my hands on historical geodata in the first place? Furthermore, participants get introduced to open-source software that enables them to create maps individually and thereby visualize research results. In a second part, the workshop focuses on ways in engineers of the Swiss Federal Office of Topography (swisstopo) contribute to a 'landscape memory' and how environmental scientists work with historical geodata. The contributors elaborate on how a mosaic of true-to-scale landscape photographs is produced and how it helps us to understand the past. Furthermore, the significance of historical geodata for the analysis of landscape changes in the Alpine region will be at the centre of interest.

The workshop is addressed to all interested participants; previous knowledge of the topic is not required.

12:45- 14:15

Mensa UniS & Unitobler

Lunch

City Trip on Thursday, 24.08.2023, 14:00-16:00

City Trip D

City Tour for young researchers

Guide:

Niklaus Emanuel Bartlome, University of Bern, Switzerland

Why do the street shields in Bern have different colours? Why do we have a Dutch Tower in Bern? What is a Ligu Lehm? These and many more questions about the History of Bern will be answered on our young researchers city tour during a walk from the famous Loebegge to the cosy Tram Depot.

1000-113 on Thursday, 24.08.2023, 14:15-15:45

UniS – A-126

Futures of Water History II: Where should we go from here?

Organiser:

Martin Schmid, BOKU University of Natural Resources and Life Sciences Vienna, Austria

Chairs:

Martin Schmid, BOKU University of Natural Resources and Life Sciences Vienna, Austria

Ellen Fenzel Arnold, University of Stavanger, Norway

Presenters of the Roundtable:

Marianna R. Dudley, University of Bristol, United Kingdom

Maurits Ertsen, Delft University of Technology, The Netherlands

Ruth Morgan, Australian National University, Canberra, Australia

Giacomo Parrinello, Center for History at Sciences Po (CHSP), France

Lise Sedrez, Universidade Federal do Rio de Janeiro, Brazil

Abstract:

We live in an age of dramatic change in water systems. The threats of a heating world primarily result from changes in the global water cycle, from melting glaciers to eroding coasts and sinking deltas. Mountains and plains are connected differently – or not at all - because of profoundly altered water systems. Water and aquatic environmental history have become broader, more inclusive, and diverse. We have realized that with water comes sediment, opened up new sources and digital analysis tools, and connected different aquatic systems in novel integrative approaches. We have strengthened a global perspective and critically revised some long-held myths of ingenious water engineering achievements. We have re-visited the links between water and societal power and the role of water in energy transitions, we found cultural and practical continuities reaching far back into the history of human civilizations; and we discovered profound ruptures in the dusk of an «Anthropocene» way of dealing with water. The field is evolving rapidly in many directions; it is time to pause and ask reflexively: where should we go from here? What kind of water histories should we tell today to inform urgent debates and decisions? This roundtable assembles renowned colleagues, all members of the editorial board of the journal water history, who deal with water in very different ways. The roundtable intends to irritate established water historians and inspire others to take a fresh look at their environmental histories through a watery lens.

1001-C13 on Thursday, 24.08.2023, 14:15-15:45

UniS – A 022

Commodities, markets, environments (H)

Organiser:

ESEH Programme Committee

Chair:

Julia Lajus, Max Planck Institute for the History of Science, Germany & Columbia University, New York, USA

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Paper 1:

Victoria Østerberg, University of Agder, Norway

Plastification of Life in Three Southern-Norwegian Coastal Communities between 1950 and 1990

The use of plastics increased exponentially during the four decades between 1950 and 1990, most of which is said to be still present on the planet, slowly adding up as an anthropocenic layer of late capitalism. Like other parts of the petrochemical economy, plastics became a symbol for modernity, and it propagated new practices and ideas in the everyday life of the communities it was introduced. I will consider the historical event of plastification as seen through three coastal communities in Southern Norway. From this perspective, I will consider what cultural, and environmental implications the advent of plastics had. I will also reflect upon concepts of social justice and their analytical value for the case of plastics in asking: who or what were being othered, wasted or acted violence upon within a western, white and privileged context?

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Paper 2:

Michael Zeheter, University of Trier, Germany

Commodified Nature: The Making of Natural Mineral Water as a Health Product

When Europeans buy a bottle of water, chances are they consume a piece of nature. Around 97 percent of all bottled waters are labelled «natural spring» or «natural mineral water» according to EU regulations and producers focus on the naturalness of their product in their advertisements. The commodity however, comes in a very unnatural plastic bottle and was often shipped over long distances across the continent. Yet, this incongruence between the label, the image and the material manifestation of mineral water apparently is not bothering consumers. They spend billions of euros every year for a commodity that consists to 99 percent of H₂O and is largely identical with the substance that comes out of the tap at home.

The talk will explore the development of natural mineral water from a medical remedy consumed in nineteenth century spa towns into a supposedly healthy and natural mass consumer product. It will focus especially on its claimed naturalness, the interconnected concepts of nature and health underlying its success on the European beverage market and their place in the post-WW2 consumer society and culture. Finally, it will discuss the fragility of these concepts and attributions, their inherent paradoxes and contradictions and the mineral water industry's work to hide them from consumers.

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Paper 3:

Kunyan Zheng, Trinity College Dublin, Ireland (V)

Environmental changes, English Society, and the London Fish Market, c. 1640-1700

The London fish market underwent rapid growth roughly between 1640 and 1700 in the context of environmental changes and the ever-changing English society. With the establishment of overseas colonies, England had access to an increasing number of fish resources in other parts of the world. This paper will begin with an inquiry into how climate change impacted the consumption of fish and how various fish were imported into the London fish market. Then, this paper will examine how different politicians, fishers, merchants and ordinary people reacted to these fish resources, and how such dynamics shaped the London fish market, English society and natural environments. Finally, this paper will reveal that a fish market is not only a concrete physical place for selling fish products, but also an abstract and metaphoric space for different political and economic forces, various perceptions, and natural resources and environments to interact with each other. In this way, this paper attempts to reevaluate and reflect on the role of fish resources in English society and the integration of the North Atlantic world between 1640 and 1700. As for methodologies, the outcomes of natural scientific studies and tools of digital humanities will be applied to this study.

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Paper 4:
Gašper Oitzl, National Museum of Slovenia, Slovenia

Use and Management of Natural Resources in the Ironmaking in the Slovenian Territory between 14th and 16th Centuries

In the Slovenian territory, ironmaking had developed into a professional industry by the 14th century. Several new ironworks were built during the next two centuries, mostly operating in the Alpine and Subalpine world of the north-western part of present-day Republic of Slovenia. A smaller number of ironworks also operated in the lowlands. Iron ore was gathered or mined in the local deposits and smelted in the bloomery furnaces. Water power was used to drive the bellows and trip hammers, and charcoal was used as a fuel for smelting and blacksmithing processes. Charcoal was produced from wood which was cut down in the surrounding forests.

The main purpose of this paper is to outline in which way and to what extent natural resources in the vicinity of the ironworks, and also in the broader area, were being employed by the owners of the ironworks. Furthermore, particular emphasis is placed on the relation of feudal seigniories and rulers towards the exploitation of these resources, the way of their taxation and regulations they wanted to implement. The following analysis is based on archival documents, urbaria, and also mining regulations, which have proved irreplaceable in our research. Finally, the obtained results are discussed in the broader Central European context in order to improve our knowledge of the use and management of natural resources in ironmaking of the pre-industrial era.

1002-379 on Thursday, 24.08.2023, 14:15-15:45

UniS – A-122

The global struggle for land: 19th and 20th centuries

Organiser:
Emiliano Travieso, Carlos III University of Madrid, Spain

Chair:
Simone Gingrich, BOKU University of Natural Resources and Life Sciences Vienna, Austria

Abstract:
Human life, wellbeing, and economic development have always been tied to land and the material resources it provides. Whilst competition for land has been pervasive throughout history, the scale of the struggle became global over the last two centuries, with unprecedented environmental and economic consequences. Industrialization, whether in 19th century Europe or in 20th century East Asia, required increasingly large volumes of raw materials and foodstuffs brought from near and far. A vast expansion of international trade since the mid-19th century opened the floodgates to «outsourcing» land use, whereby industrializing and industrialized nations gained access to new frontiers through the importation of land-based commodities.

When a country imports an agricultural product, it is effectively using the foreign land resources embodied in that commodity. Today, over a third of global agricultural land is estimated to be «traded» in this way, but: To what extent has land outsourcing been important since the rise of global trade? How has it affected economic development across different countries? What has been its impact on global environmental change and what share of responsibility does each nation bear?

The papers in this session take up these long running questions in a series of studies which use historical sources to estimate the land embodied in agricultural trade during or since the 19th century. They do so from the perspective of both the «core» industrial economies (in the case of the United Kingdom) and the global periphery specialising in primary commodities (Latin America in general and Uruguay in particular).

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Paper 1:

Juan Infante-Amate, University of Granada, Spain

Who deforested Latin America? The rise of global trade and the expansion of agricultural frontiers (c. 1880-2018)

The rise of global trade allowed nations to externalize land use abroad. This process relieved relative land scarcity in many world countries, particularly in European ones, through the import of land-based commodities. For many scholars (e.g. Pomeranz, Wrigley) this relief played a key role in the rise of modern economic growth in Europe since 19th century. Nevertheless, international trade also triggered severe process of deforestation as well as other environmental impacts in exporting countries. The goal of this paper is focused on these other effects derived from the globalization process in the periphery. That is, we want to quantify the share of Latin America deforestation explained by international trade demands, and to identify the importing countries behind this impact. With this paper, we aim to shed light on the debate surrounding the economic benefits and environmental costs of international trade.

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Paper 2:

Dimitrios Theodoridis, Stockholm University, Sweden

The ecological foundations of British trade in the 19thC

I investigate the extent to which the conquest of overseas colonies represented an ecological relief (measured in embodied land) for Britain during the 19th century. The historiography that has dealt with this issue has yet to distinguish between the composition and spatial flows of colonial imports into Britain in a comprehensive way. This study employs, for the first time, an encompassing and systematic account of British trade. The results show that the British colonies, which contributed the lion's share of Britain's geographical expansion during the nineteenth century, also provided the largest material contribution to Britain's industrialization, and much-needed ecological relief (in the form of land), through trade. Nevertheless, not all types of colonialism mattered equally. The biggest land relief came from the settler colonies in British North America and Australasia. The slave-based colonies were not as instrumental in alleviating Britain's land constraints as the nineteenth century progressed.

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Paper 3:

Emiliano Travieso, Carlos III University of Madrid, Spain

Ghost pastures in Uruguay, 1870-1930

South America has long been at the forefront of the expansion of global agricultural frontiers. In recent decades the expansion of pastures for beef cattle has contributed decisively to land-use change across the region. And yet we know almost nothing about the extent of the historical «ghost pastures» grazed by livestock in South America to supply foreign markets, because usually only cropland is measured. We examine the case of Uruguay, the country with the most cattle per person in the world, during the First Globalization, when it exported c.10% of globally traded beef and wool. Whereas in other countries livestock graze on marginal areas, in Uruguay they occupied 90% of the agricultural land and contributed to far-reaching grassland degradation. This paper offers the first estimates for the acreage of pastureland embodied in Uruguayan exports, considering changes in breed, diet, and age of animals as well as the grassland management practices throughout the period 1870-1930. We use these new estimates to cast

new light on Uruguay's economic development path and to reinterpret its mid-century agricultural crisis. Methodologically, we contribute a comparison of different methods of estimating land embodied in pasture-based cattle and sheep farming in historical perspective.

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Paper 4:

Onder Eren Akgul, Kadir Has University, Turkey

Mountains and Plains of Dispossession in Late Ottoman Mediterranean

This paper examines the massive wave of enclosures of land and forest commons in Western Anatolia at the end of the 19th century. The landed estate (çiftlik)-owning capitalists along Western Anatolia's major river basins enclosed surrounding pasture lands, and çiftlik owners in southwestern Anatolia enclosed mountain forests into their çiftlikts. These waves of enclosures generated environments of dispossession where farmers in the çiftlikts and surrounding villagers were deprived of their free access to, and control over, what they saw as pasture and forest commons. Both these waves of enclosures and dispossession in the lowlands and highlands concentrated in the last quarter of the 19th century, and the appropriation of land and forests, are examined in this paper as a form of primitive accumulation of nature and capital. The capitalist land and forest entrepreneurs' availability and capacity to organize their power and material interests in the state via local administrative councils, access to state and non-state means of violence, pre-existing modes of hierarchies, and fraud, this paper demonstrates, all played a role in the process of primitive accumulation of capital. This paper argues that the enclosures and the consequent production of the environments of dispossession in this particular epoch of history in Western Anatolia were an Ottoman phase of primitive accumulation of capital, the character of which was shaped by its institutions, existing hierarchies, and the trajectory of how agrarian capitalism evolved in its geography.

1004-359 on Thursday, 24.08.2023, 14:15-15:45

Unitobler – F 005

Who governs the transformation of the Alpine landscape? Some reflections on the Swiss Alps in the second part of the 20th century

Organiser:

Philippe Vonnard, University of Fribourg, Switzerland

Chair:

Claude Hauser, University of Fribourg, Switzerland

Abstract:

For the past twenty years, the Susa Valley has been notably known due to the arguments surrounding the creation of the Lyon-Turin high-speed railway. While the project is supported by the European Union, a social movement («No-Tav») has progressively been set up to oppose the project and its values. This example is interesting because the No Tav movement is not only composed by people from the Susa Valley but also brings together a heterogeneous population, a large part of which comes from other regions, and in particular from territories that we can generically name «the plain». Based on this statement, the panel «Who governs the transformation of the Alpine landscape» wishes to question this mountain-plain dialectic, by arguing that the resistance towards the transformation of Alpine territories is not necessarily supported by the inhabitants of the mountain regions. The speakers propose three case studies that focus on the example of the Swiss Alps, in a time frame ranging from the 1960s to the 1990s, a moment in history that has seen major transformations of the Alpine landscape. Built on original sources, the studies will offer complementary approaches (cultural history, environmental history, or social history) and will address

various fields of research (architecture, tourism, and sports). The panel will be commented by Prof. Dr. Jon Mathieu, Professor Emeritus at the University of Lucerne, who is one of the most recognized specialists in the history of the Alps.

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Paper 1:

Caterina Franco [et al.], University of Lausanne, Switzerland

Tourist development in Val d'Hérens and protection of nature (1970-2000).

Questioning actor's discourses around some non-realized projects

The contribution deals with the history of Val d'Hérens, a lateral valley of the Rhone basin, in the framework of an interdisciplinary project «Val d'Hérens 1950-2050» developed by the Centre Interdisciplinaire de Recherche sur la Montagne. Since 1930, this territory previously structured by agricultural-based economy has been strongly affected by the construction of two successive dams, now part of the Grande Dixence hydroelectric powerplant. Successively, some of the municipalities developed a rent-based economy derived from the perception of water fees, others became more dependent from the city of Sion as source of work for its inhabitants, and are now questioning the possibility of a redefinition of municipal boundaries. One of the peculiarities of this case is that, differently from other alpine valleys, diverse projects developed by and for Val d'Hérens for its tourist development during the second half of the XX century, were not realized. Our work aims to question the reason of what can be defined as an «failed transition» towards a tourist economy. For answering the question, we analyse the history of some of the non-realized projects (the creation of a ski-area in St-Martin; the connexion of the ski area of Evolène with that of Thyon 2000-4 Vallées; the Winter Olympic Games Sion-1976; the creation of a Parc Naturel Regional), through research on archival records and on the local press. Particular attention is devoted to the understanding of the position and the discourses of different actors, both local and external (the inhabitants; the municipal, cantonal and federal authorities; some ONG). This case study offers the possibility to reflect upon the forces that guides the development of alpine regions, and the place of the instances for the protection of nature in this trajectory.

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Paper 2:

Philippe Vonnard, University of Fribourg, Switzerland

When the «plains» were thinking about the future of the Alpine regions. The case of the 1974 international symposium «The Future of the Alps»

«Nous ne sommes pas contre le progrès mais pour un développement harmonieux des activités traditionnelles et du tourisme». These words were pronounced by Jean Juge, the President of the International Climbing and Mountaineering Associations (UIAA), at the international symposium «The Future of the Alps» held in September 1974 in Trento (Italy). This international congress appears as a «turning point» in the history of the environmental protection - although the term was not used at that time - of mountain regions (and particularly the Alps). Firstly, the event was the result of a strong collaboration between several international organizations that focused on the mountain: UIAA, Commission internationale pour la protection des Alpes (CIPRA) and the Trento Film Festival (both created in 1952). In addition, it received symbolic and financial support from UNESCO, the Council of Europe and the United Nations Economic Commission for Europe. For seven days, the symposium brought together an international panel of scientists, employees of state administrations responsible for spatial planning (within the Alpine region) and members/representatives of the organizations that launched the symposium. Based on original archives and focusing on an event that remains little studied in the academic field, this paper follows three aims, firstly, to study the launch of this symposium, secondly, to analyse the topics that were discussed in that arena, and last but not the least, the paper investigates the concrete environmental consequences of the symposium on the Alpine regions.

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Paper 3:

Grégory Quin, University of Lausanne, Switzerland

When alpine skiing was (finally) democratised. Some milestones around the establishment of the Club Méditerranée in St. Moritz in the 1960s.

As a major sport for understanding the dynamics of the transformation of mountain areas in the 20th century, alpine skiing became went through a democratisation process in the post-war decades. Although this process remained partial for a long time, it was explicitly promoted by local actors such as hoteliers, tourist offices, cable cars operators and ski schools, but also by more global actors such as hotel chains and networks of tourist promoters. Using the example of St. Moritz and the establishment of the Club Méditerranée in the 1960s, our ambition is to understand how the interactions between these actors are played out at the local level to highlight the economic, social, urbanistic, environmental or, more broadly, cultural stakes. Indeed, if the development of tourism - in St. Moritz perhaps more than elsewhere - is deeply linked to an internationalization process since the end of the 19th century, the example of the arrival of the Club Méditerranée (an external actor) in this temple of chic-tourism underlines that there may also be obstacles to democratisation beyond a simple problem of cohabitation between social classes. To carry out our analyses, we will use the archives of the municipality of St. Moritz, which are rich in documentation on the development of tourism, on certain private archives of actors (hoteliers notably) involved in the process, and on a broad review of the local, national and international press.

1005-210 on Thursday, 24.08.2023, 14:15-15:45

Unitobler – F 013

From different places and through multiples lenses: Memories, histories and measures of burning landscapes (H)

Organiser:

Inês Gomes, NOVA University Lisbon, Portugal

Chair:

Ana Isabel Queiroz, NOVA University Lisbon, Portugal

Abstract:

In this panel we convoke different contemporary histories of fire in distant places around the world. As we will see, with the change of place but also of the one telling the history, the perspectives, scales of work, and sources used to produce knowledge about the uses, representations, and dynamics of fire change substantially. There is no global history of fire, but the dialogue among the three papers that make up this session highlights common political and biophysical realities that go beyond local or national frameworks.

Kroumirie on the Tunisia-Algeria mountain border, communities in fire ecologies in Canada, and the Monchique mountain range at the southwestern tip of Portugal and Europe offer a rich panorama of contemporary wildfire regimes as the result of particular ecological, colonial and scientific entanglements.

The researchers ask: What is the relative importance of climate and landscape changes as part of new fire regimes? To what extent are the ecology and the political economy of planted forests driving an increase in large fires? Is there a link between the ban and decline of agricultural fires and the onset of high-intensity wildfires (the so-called «firefighting trap»)? What politico-judicial processes have governed the use of fire in rural and agricultural areas? How might the survey of practical knowledge of fire leverage a critical history of burning landscapes? How has forestry shaped and been shaped by these (fire) chronologies?

After all, what makes an arsonist?

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Paper 1:

Mica Jorgenson, University of Stavanger, Norway (V)

Bureaucratic Burning: Beginning an Environmental History of Prescribed Fire in Norway

In June 2021, the Sorta fire in western Norway burned over 700 hectares of encroached heathlands, destroyed three buildings, forced evacuations, and jumped a 270-metre fjord. Norway has not historically experienced aggressive fires like Sorta. Although climate change is responsible for changing fire regimes here, it is working in conjunction with a host of other historical factors: migration resulting from colonisation and war, the industrialisation of agriculture, and the subsequent spread of flammable juniper into former pasture lands.

Land stewards in rural and mountain regions of Norway have a long history of intentionally burning forests for aesthetic, economic, and safety purposes. As fire regimes worsen under climate change, Norway and other Nordic states have begun experimenting with prescribed fire based on North American models. However, integration into wildfire prevention policy has been slow. Poor reception of prescribed fire in Norway is a result of the historic alienation of rural people from traditional burning practices and the rise of environmentalism, including scientific forestry and suppression policy, from other parts of the world.

This talk introduces my Norwegian Research Council-funded project on the history of prescribed burning in Norway and the boreal north, including Scandinavia and northern Canada (running from 2023-2026). I will present the early results of my research, specifically government efforts to regulate landscape fire in the early twentieth century. I argue that there is a close relationship between fire and power, and that burning regulations were tied to wider colonial and capitalist projects in Norway.

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Paper 2:

Myriam Amri, Harvard University, Cambridge MA, USA (V)

A Border on Fire: Pyromanes and colonizers in the Kroumirie

This paper contends with the governance of fire in the region of Kroumirie, today's northern border between Algeria and Tunisia. I consider how forest fires in the Kroumirie, known for notorious green landscapes, became ways for French colonizers coming from Algeria to justify their annexation of the region, from the 1880s onwards inaugurating as such, the beginning of their rule on contemporary Tunisia and the Maghrib region more broadly. Through archival and ethnographic research linking colonial to contemporary times, I examine fires as social events from which modes of disciplining emerge. In particular through archives of French environmentalists mixed with newspapers of the early colonial period, I look at how colonizers perceived people of the region as «malicious natives» who set the unique region's flora on fire. These claims that bring intention into fire discourses, render specific individuals into pyromanes, arsonists who ought to be controlled and ultimately governed. Fires in the Kroumirie region become as such battlegrounds for the management of the region in contested times. From colonial times onwards, this paper ultimately attempts to understand how fires create in their flaming trails new figures, and new modes of rule that ought to be apprehended from the start of a fire onwards. Ultimately, this paper reckons with fire as a technology of rule that frames processes of annexation, enclosures, and border-making.

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Paper 3:

Miguel Carmo, NOVA University Lisbon, School of Social Sciences and Humanities (NOVA FCSH), Portugal

The burning landscapes of Monchique: in search of a people's history of extreme fires in the mountains of southern Portugal

The mountains of Monchique overlook the Atlantic coast in the southwestern corner of the Iberian Peninsula and have been frequently crossed by very large fires during the last few decades. At least since the 1980s the large wildfires of Monchique have figured in Portugal's statistics. Even older inhabitants today reproduce this frightening and unpredictable image of the mountains; stories of surviving fire are told. However, other chronologies, data and perspectives are beginning to shape a curiously distinct history.

Knowledge about fire regimes in Portugal has been tied to state records of occurrences that started in 1980, leaving what happened before in the shadows. Forestry sciences are the main producers of knowledge about fires, being less inclined to provide social-historical thickness and duration. Our study in Monchique is a transdisciplinary microhistory experiment crossing environmental analysis with ethnographic and documentary collection, which is part of a larger research on the uses of fire in the Portuguese national space between 1950 and 2020.

Focusing on the survey of fire practices in the mountains (past and present, sanctioned and illegal) we aim to gradually leverage a critical history of large fires in Monchique. We focus on testimonies and narratives of first-hand users of fire, but also on media, scientific, and governance representations of these practices recorded by other actors in written sources. Today we can say, regardless of future self-correction, that fire has returned to Monchique in the 1980s in uncontrolled and uncultured forms after having been slowly excluded (and forgotten) from the mountains.

1007-408 on Thursday, 24.08.2023, 14:15-15:45

Unitobler – F 022

Political Mountains? Nineteenth-century Climate Discussions between Europe, Africa and South America

Organiser:

Falko Schnicke, Johannes Kepler University Linz, Austria

Chair:

Mona Bieling, Geneva Graduate Institute, Switzerland & Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

Abstract:

The panel examines public discussions of the nineteenth and twentieth centuries from the journalistic or scientific spheres in which the significance of mountains for the climate was considered. The papers study the entanglements of climate, mountains, health and wider impacts on human development. In each case, they explore the question of how people related to mountains in their perceptions of climate, what conditions they saw themselves at the mercy of and what scope they saw for agency in their actions. The last point addresses the political dimension of the mountain climate. The examples are widely spread between Europe, Africa and South America. What the papers have in common is that all the discussions pursued are about the influence of mountains on the climate and/or about interventions in nature. Part of it is also the question of what influence human activity has had on nature already in the societies under investigation, i.e. since the early nineteenth century. The papers present sources that have received little attention so far and thus make a historical contribution to climatology. All papers aim to historicise the discussion about the Anthropocene, because they ask about intentional and non-intentional interactions between mountains and climate from the perspective of societies since the nineteenth century.

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Paper 1:

Falko Schnicke, Johannes Kepler University Linz, Austria

Glaciers, Volcanoes and Alpine Forests: Montane Climate Interpretations in Nineteenth-Century European Regional Newspapers

When climate change was contemplated in the nineteenth century, mountains were a central point of public debate. In regional newspapers, they were referred to in three contexts. The paper will explain these popular readings in order to contribute to the differentiation of climate knowledge of this period. It thus contours daily newspapers as nineteenth-century climate media and analyses the public worlds of thought on climate change at the end of the so-called Little Ice Age (c. 1300-1850).

First, glaciers and their changes were interpreted as signs of impending or occurring climate change. The change in climate knowledge of the time can be observed in the reports of the newspapers in the course of the nineteenth century: while in the first half of the century changes in glaciers were only observed and questions were asked as to whether there was a connection with the climate, by the end of the nineteenth century the newspapers were certain of this as glaciology advanced. Now climatic correlations and regional and global consequences of changes in glaciers were discussed.

Second, volcanoes were suspected of having an effect on the climate early on. Newspapers mainly propagated the theory that the soot particles released into the air during an eruption would worsen the local weather. In the 1860s, the Central American Cosigüina eruption of 1859 revived this discussion. Regional continental European newspapers also took up this example.

Third, newspapers attributed a special climate-regulating function to mountain forests. While other forests were also considered to have an effect on the climate at least since Humboldt, the special function of mountain forests was emphasised several times. In newspapers from Alpine regions, they were considered important for a balanced climate that was considered favourable. The complexity of the popular climate discourse was evident, as the question of forests was linked to glaciers: it was discussed whether they would melt faster if the forests were cut down.

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Paper 2:

Sabrina Sigel, University of Geneva, Switzerland

Public debates about human-induced climate change in the Serra do Mar mountain range, Brazil, 1850-1930

In the last quarter of the 19th century, a consensus emerged in São Paulo that deforestation was responsible for observed changes in the local climate. Due to commodity production's role in destroying the Atlantic rainforest between 1850 and 1930, the increasingly hot and dry weather was attributed to human activity. Pessimistic forecasts regarding the future hostility of a 'desert-like' climate supported calls for governmental regulation. Climate change became a political issue.

This paper analyses the climate debates in the major daily newspapers of São Paulo (the *Correio Paulistano* founded in 1854) and Rio de Janeiro (the *Jornal do Commercio* founded in 1827). The press coverage of deforestation in the Serra do Mar receives special attention, because this mountain range's devastation played a particular role in the climate debates. Apart from dominating Rio de Janeiro's characteristic landscape, it also served as a reference point in São Paulo, where it separated the interior coffee-producing plains from the harbor of Santos.

The paper adds Brazilian perspectives to the history of climate debates. To accomplish this, it details first which climate knowledge was locally available and to what extent it was imported from Europe or based on local expertise. Then, it identifies the key actors behind these debates and shows the growing influence of local scientific institutions. The last part explains how government and general public perceptions of

these debates evolved over time. The paper concludes by reflecting on the similarities and differences between Brazilian and European climate debates.

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Paper 3:

Karolin Wetjen, University of Kassel, Germany

Mountain Climates. Modern Debates on health and climate

The fact that and how the climate in the mountains could influence human performance and health was the focus of climatological and medical debates about temperature sensation, air pressure, and precipitation in the 19th century. In these discourses, the «high-altitude climate» was, on the one hand, the «other», hostile to life climate; on the other hand, these discourses emphasized the healing properties of the «mountain climate», and the first high-altitude health resorts were established. Moreover, the positive effects of the mountain climate seemed to be particularly decisive in the tropics, so colonial administration and missionary societies established sanatoriums and convalescent homes in higher altitude areas.

The paper will analyse this conflicting entangled modern climate knowledge through journals, scholarly articles, travelogues, and literature. It will be asked how climatological and medical bodies of knowledge were intertwined in these media and formed an understanding of a modern healthy climate.

1008-C09 on Thursday, 24.08.2023, 14:15-15:45

Unitobler – F 023

Pastoralism

Organiser:

ESEH Programme Committee

Chair:

Daniel Marc Segesser, University of Bern, Switzerland

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Paper 1:

Biswajit Sarmah, Independent Scholar, India

Inventing lawlessness: Pastoralism in Colonial Assam

Large-scale pastoralism was unknown to the Brahmaputra Valley in Northeast India in the pre-colonial period. The Nepali graziers from neighbouring kingdom of Nepal made the floodplains their niche since the late-nineteenth century under the colonial aegis. Pastoral economy flourished in the first quarter of the twentieth century before its gradual decline from the second. While works on pastoralism in Assam are rare, the available historical accounts consider that floodplains were pre-ordained ecological niche for the graziers.

This article counters such assumptions and shows that graziers were confined to the floodplains due to the disruptions caused by wider processes of imperial economy. When the pastoralists began herding around the turn of the twentieth century, the province already had one-sixth of its land under European-owned tea estates and government reserved forests. Graziers herded in the foothills during the monsoon and descended to the low-lying floodplains in the winter. As tea and forestry both scrambled for the highland immune to flood, the foothills were increasingly closed to the graziers restricting them to the floodplains. As the Nepalis adapted to the mobility of the transient floodplains, the colonizers ascribed the specificities of the floodplain volatilities like «unruly» and «nomadic» to the graziers. This article argues that imperial

vision of colonial order was realized by constantly inventing such sites of «lawlessness».

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Paper 2:

Suraj Pratap Singh Bhati, Ambedkar University of Delhi, Kashmere Gate, India

Sacred Ecologies, Pastoral Systems and «Waste» Lands: State and Community Narratives of Environmental Commons in the Thar desert, western India

Postcolonial states in the global South view drylands as «empty spaces» that are unproductive, static, and waiting for development. And yet, desert regions have been vibrant spaces for nomadic and semi-nomadic pastoral societies, with cultural resources and complex adaptive livelihoods that answer the rhythms of aridity and scarcity. This paper examines an agropastoral landscape in the Thar desert of India, focusing upon the historical meanings and transformations associated with dryland forests, sacred groves and pasture lands.

This study traces the histories of pastoral livelihoods in the state of Rajasthan using oral narratives and local folklore revolving around valour and sacrifice of feudal lords, kings and their subjects. Building on a colonial discourse of «waste» lands, the postcolonial state invisibilised indigenous uses of the landscape. This paper posits an alternative imagination of the Thar through an examination of folktales of headless warriors fighting for cattle, cultural representations of sacred landscapes (orans) and genealogies defined by cattle-loving gods. The study emphasises on the changing dimensions of accessing pasturelands and understanding of environmental commons, focusing on the 20th century as the period of transition.

The amalgamation of local identities and land designated by erstwhile kings and feudal lords; but managed by community through taboos, cultural incentives, rituals and customary practices defines the dynamics of the landscape. The paper situates itself as an effort of presenting an alternative environmental history of the landscape that is derived from the community and their imagination.

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Paper 3:

Eugene Costello, University College Cork, Ireland & Stockholm University, Sweden

The Adaptability and Influence of Upland Pastoralists in North-west Europe, c.1300-1800

Around the north-west of Europe lie significant tracts of upland and outland terrain – from the west of Ireland, through Scotland and on to Scandinavia. In late medieval and early modern times, these places became increasingly important for extensive livestock grazing and, in some cases, for exploitation of non-agrarian resources like timber, charcoal and peat. However, they are not as well served by written sources prior to the 18th century as some other parts of Europe. As a result, they are often found at the margins of mainstream agrarian and economic histories and the agency of their inhabitants is not given enough attention.

This paper uses an interdisciplinary approach to trace what was happening in uplands of north-west Europe from circa 1300 to 1800 and assess how their inhabitants actively contributed to wider economic and environmental change in the period. In particular, I will discuss when people in these landscapes started to rear livestock in a commercial way and ask whether they were responsible for fuelling the growth of well-known urban-industrial centres.

Furthermore, by taking a landscape approach, I will be able to consider the environmental knowledge of farmers and herders at a local level and highlight the gradual impacts of their actions on upland vegetation.

The paper will draw on a novel combination of archaeological, palaeoecological, documentary and placename evidence and use examples from south-west Ireland, Highland Scotland and central Sweden.

1009-187 on Thursday, 24.08.2023, 14:15-15:45

Unitobler – F-105

Sounds of Nature: Soundscapes, Topographies, and Histories of Environment

Organiser:

Martin Willis, Cardiff University, United Kingdom

Chair:

Martin Willis, Cardiff University, United Kingdom

Abstract:

This panel is presented by the investigators of the Sounds of Nature project, jointly led from Cardiff and Berlin. The Sounds of Nature project examines the relations between sound and environmental awareness in the period from 1750-1950. The project aims to recover and investigate representations of sound in a period that is frequently considered to have been central in constructing contemporary environmental ideologies and in developing institutions for conservation. The project will also interrogate the complexity of how natural sound and natural silence are constructed in other historical periods and how that continues to shape contemporary attitudes to the sound of nature. It will create a transferable methodology for thinking about how comparatively ephemeral phenomena shape our understanding of the environment in the past, present and future. In this panel, the speakers present some of the early findings from the project. They consider - through examining soundscapes from across Europe, on plain and mountain, from the early nineteenth century to the present day - how changes to sound within natural landscapes speak to historical (dis)continuities. Attending to both human and non-human sounds each presenter examines and questions definitions of nature and natural as well as issues of environmental invasion, conservation and loss. The speakers are Wilko Graf von Hardenberg («Preserving Quiet. Sound, Tourism, and Nature Conservation in European Mountains»), Anne Hehl («Feelings for Nature. Valuing Naturalness through Sound»), James Castell («Startling Sounds»: Wordsworth's Soundscapes and Environmental Awareness), and Francesca Mackenney («Heard in Every Vale»: The Corncrake, John Clare and Kathleen Jamie»).

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Paper 1:

Wilko Graf von Hardenberg, Humboldt University Berlin, Germany

Preserving Quiet. Sound, Tourism, and Nature Conservation in European Mountains

Calm, quiet, and silence are founding elements of the tourist appeal of mountain landscapes. Moving from this consideration, I look here at the historicity of the connection between the rarefied atmosphere of alpine environments and their growing attractive power on elite travellers and mass tourists alike.

On the one hand the perceived naturalness of mountain soundscapes attracts tourists and alpinists. On the other, this process brings disruptive sounds to the mountains, such as the roar of motorcars. In Italy the introduction of the sounds of modernity to isolated mountain areas caused by the increase in tourist flows and infrastructures was repeatedly brought up in early conservation debates. Some claimed that animals were more adaptive to human disturbance than preservationists wanted to make believe: a critic of how early conservation was managed affirmed that animals in conservation areas had learned to approach humans to beg for food and to avoid cars. He thus wondered why the sound of ice picks and campfire songs should negatively affect the ibex, the iconic animal of the Gran Paradiso National Park.

Adopting a comparative transnational perspective, I also explore the criteria according to which auditory experiences were categorised along the sound/noise continuum and certain compounds of animal, geological, and human sounds were classified as natural. Bringing to the forefront the social construction of all soundscapes, I offer a preliminary analysis of the importance of discussions about «natural quiet» and its perceived disruption in early European debates on conservation in mountain regions.

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Paper 2:

Anne Hehl, Humboldt University Berlin, Germany

Feelings for Nature. Valuing Naturalness through Sound

The idea of how sounds that emanate from local environments became carriers of feelings of affection to nature lovers, natural scientists, and hunters of Germany in the 19th century and coined their view of what «healthy» and «good» nature is, becomes comprehensible through the close connection between sounds and emotions. A core question regards how the sonic products of species deemed as alien or as potential ecosystemic threats were evaluated. These species – and their sounds – were being frequently denied the status of being a part of nature. As with manmade and technical sounds the invasive species were alleged to be tainted – almost to the point of human depravity – and to threaten the primordial flora and fauna with displacement. Notions like these clearly testify not only to a particularly negative opinion of humans and civilization, but they also inhibited the perception of humans as an integral part of the natural world.

Though these opinions partially coincide with a negative attitude towards modernism and change of certain parts of the conservation movement that embraced nationalist and volkish attitudes, it is questionable whether other groups among the politically and socially highly diverse conservationists shared those views. Whether integrations of «unpleasant» or simply disliked sounds could have taken place over time or if irritating and unknown sounds were seen as disconnected from a «pristine» or «intact» part of nature is the main issue I discuss in this paper.

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Paper 3:

Jamie Castell, Cardiff University, United Kingdom

«Startling Sounds»: Wordsworth's Soundscapes and Environmental Awareness

What can we learn about the role of sound in our own environmental awareness by looking at the representation of soundscapes in other historical periods? This paper will focus on multi-layered soundscapes from examples in Wordsworth's poetry, which stands not only as one of the most canonical texts in British Romantic literature but also as a central pillar of early influence on the institutions and conceptual frameworks that have shaped the development of environmental thinking over the past two centuries.

Through the lens of Wordsworth's poetry, I explore the entanglement of diverse human and nonhuman elements in soundscapes which trouble a straightforward or essentialist understanding of «nature». In the process, I closely analyse the role of poetry and the aesthetic in producing both acoustic effects and affects in Wordsworth's versified acts of listening. I also uncover in his writing a profound intimacy between what he describes elsewhere as different «modes of being», an intimacy which is driven primarily by attention to sound.

Historical difference makes it difficult to draw direct parallels between Wordsworth's proto-ecology and our own moment of environmental crisis. Nevertheless, I argue that his unique form of acoustic ecology reveals some of the ways in which our own thinking has been shaped and limited by a preceding genealogy of environmentalism. In its openness to the unexpected and its embodied engagement with nature, close attention to sound in the poetry of this period may also offer new avenues for further exploration in the environmental humanities.

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Paper 4:

Francesca Mackenney, Cardiff University, United Kingdom

«Heard in Every Vale»: The Corncrake, John Clare and Kathleen Jamie

When John Clare was writing in the early nineteenth century, the «craiking» voice of corncrake could be «heard in every vale» («The Landrail», 1832-7). Once widespread throughout the British and Irish Isles, the population of corncrakes declined catastrophically in the twentieth century due to changes in farming practices: tall grass hay crops once provided the bird with cover in which to breed and raise its young, but the introduction of mechanised mowing and earlier cutting for silage led to its near extinction. By the time that Kathleen Jamie set off in search of it for her book *Findings* (2005), the bird's distinctive crex could only be heard in remote parts of the Scottish Western Isles. Focusing especially on Jamie's responses to Clare's description of the corncrake, my paper will explore how literary renderings of natural sounds in previous historical periods continue to shape our understanding of environmental change as well as loss. As the bird's geographical range has considerably narrowed, the corncrake, as Jamie is led to reflect, raises further questions about natural soundscapes and their importance to our sense of place: the topographical, cultural and linguistic features particular to a specific region or locality.

1010-313 on Thursday, 24.08.2023, 14:15-15:45

Unitobler – F-113

Geographies of Entanglement and Extraction: Mountains, Oceans and Ecosystems in South Asian Environmental History (H)

Organiser:

Budhaditya Das, Ambedkar University Delhi, India

Chair:

Jim Mills, University of Strathclyde, United Kingdom

Abstract:

Mountains and oceans that often act as barriers for agrarian societies can also become routes for markets and mobility for pastoral, hill-dwelling and archipelagic communities. The proposed panel brings together four papers that capture the geographical and environmental diversity of the Indian subcontinent and the diverse ways in which societies have negotiated nature over time. Climate, physiography and topography shape ecosystems, their biophysical elements and act in conjunction with social institutions and political systems to establish patterns of natural resource use. Mountains may act as barriers and create rain shadow regions with desert and arid ecosystems, and yet also act as routes of migration and accumulation. Their role in environmental history therefore depends on their physical geography but also on political systems, economic institutions and world-historical transformations that govern them. The panel underlines such geographies of nature/culture entanglement and extraction in particular periods and ecosystems of South Asia.

The first paper (Mayank Kumar) focuses on the Aravalli mountain range in north-western India and the ways in which complex adaptive systems of agro-pastoral societies evolved and survived in these mountain ranges in the 17th, 18th and 19th centuries. The second paper (Justin Mathew) explores the role of colonialism, extractive agriculture and transport technologies in transforming the Sahyadri mountain range in south-western India in the 19th century. The third paper (Shaina Sehgal) turns its attention to the eastern Indian Ocean and the monsoon winds, maritime trade routes, missionaries and merchants in this understudied part of our planet. The fourth paper (Budhaditya Das) focuses on teak (*Tectona grandis*) a

valuable timber species as a lens to narrate histories of state formation, resource extraction, colonial knowledge-making and landscape governance in the 18th and 19th centuries. Overall, the panel emphasizes the importance of studying mountains, oceans and ecosystems to further the agendas and insights of South Asian environmental history.

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Paper 1:

Mayank Kumar, Indira Gandhi National Open University, India (V)

Monsoon, Mountains and Creation of divergent livelihood patterns

Mountains are often seen as barriers, but the character of barrier and its impact on adjacent plains can be and has often been diametrically different. This is particularly true for monsoon ecologies of the Indian subcontinent. Since ancient times, the Himalayas have been seen as a barrier which isolates Indian subcontinent from the polar winds. This barrier is instrumental in creating a tropical climate in parts of the Indian subcontinent. Within this tropical climate, we often witness creation of rain shadow areas on one side of the mountain ranges and watershed on the other side. Greater availability of water in the watershed areas and relative paucity of the water in the rain shadow areas is reflected in the diverse vegetation, agrarian practices, flora, fauna, etc.

Present paper proposes to examine the human nature interactions as mediated by the Aravalli mountain ranges and discuss the divergent landscape, livelihood patterns during seventeenth, eighteenth and nineteenth centuries. East and south-eastern side of Aravalli mountains has several streams draining the plains and sustaining diversity of agrarian production. Whereas western and north-western side is more or less desert like landscape with several significantly large salt water lakes. Despite arid conditions, human society did adapt to the climatic conditions and along with pastoral wealth managed to capitalise on the meagre rainfall and sustain at least one crop a year. Nonetheless, apparent seclusion of landscapes was more of geographical as we witness mutual dependence on the resources of each other.

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Paper 2:

Justin Mathew, University of Delhi, India (V)

Urbanisation of the Sahyadris: The History of the Munnar-Cochin Plantation Hill Road (c. 1860-1939)

The great flood that the central Kerala region faced during the southwest monsoon in 2018 has been considered as an outcome of the large-scale deforestation of the Sahyadri mountains for commercial agriculture and tourism. Historically informed environmental assessment reports emphasises that these ancient mountain ranges are subject to intense and permanent changes in the past two hundred years. In the nineteenth century, the evergreen forests, and the mountainous ways of life based on hunting, gathering, pastoralism, slash and burn cultivation gave way to large-scale monocropping of coffee, tea, cinchona, and teak. Transport technologies like monorail and ropeways converted the ecological specificities of the mountains (streams, elephant tracks, grasslands and slopes) into an extractive landscape to meet the urban appetite for timber, tea, coffee and spices. Consequently, the Sahyadri mountains became an extended landscape of urbanisation of social functions in south-west India.

Existing analysis illustrates the socio-ecological transformations of the Sahyadri mountains as purely linear, descriptive, empirical, and isolated stories of deforestation and the development of commercial farming. By reducing forests merely as «wilderness», the dominant narrative gives scant attention to the large-scale privatisation of the commons and the continuous process of dispossession, marginalisation, and elimination of ecological specificities that facilitated the mountainous way of life. Discussing the history of the Munnar-Cochin plantation hill road project shall help to argue that the mountainous hinterland was not just a space to provide primary commodities, but had undergone socio-environmental transformations

of becoming a part of the worldwide and uneven production extractive landscapes of capitalism. Consequently, this study shall attempt to integrate the «interior» mountain landscape of the Sahyadris into the global environmental histories of industrialisation and urbanisation.

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Paper 3:

Shaina Sehgal, WSP, Canada

Isolation and connection in the early modern Indian ocean world: Case of the Nicobar Islands

Geographical barriers such as mountains and oceans have historically posed insurmountable barriers for human society. In the case of islands, water bodies have isolated and connected environments and societies, thereby shaping their character into unique cultures of «islandness» described in Island Studies literature (Baldacchino 2018). This paper focuses on activity in the maritime trade route between Aceh and Pegu in the eastern Indian Ocean and the role of monsoon winds in seasonally connecting and isolating the Nicobar archipelago with the Indian Ocean world. The paper draws on colonial accounts by 'engaging colonial knowledge' to recognize the value and limitations of these written records (Roque and Wagner 2012) and artifacts in European museum collections from the period prior to colonization by European monarchs, merchants and missionaries (c. 1500 – 1600 CE). The paper infers the role of the sea and monsoons by exploring seafaring traditions, navigation, and social organization and contributes to scholarship on environmental history by providing agency to the environmental resources and conditions in archipelagos in the Indian Ocean world.

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Paper 4:

Budhaditya Das, Ambedkar University Delhi, India

In pursuit of «the most important timber tree»: Teak, science and empire in 18th and 19th century India

What can a tree tell us about land, knowledge-making and empires? A lot, in case of the teak (*Tectona grandis*). The tropical hardwood species distributed in the forests of South and Southeast Asia has been entwined with the histories and cultures of rulers, merchants and empires, from the Malabar Coast in western India to the forests of Myanmar. Teak timber was a valued component of shipbuilding technologies in South Asian societies. The use of teakwood ships in Anglo-French Wars drew the attention of English East India Company towards forests in India and their efforts to guarantee timber supplies were instrumental in empire forestry and forest conservancy in the 19th century. For British foresters, it was the «most important timber tree of India» (Troup, 1921) and an object of evolving experiments, field science, law and regulation. Sylviculture was an imperial science and pests, soils, diseases, fire protection and regeneration became preoccupations of forestry officials, botanists and conservators. This paper will examine the transformations of teak in the 18th and 19th centuries with respect to knowledge-making and state formations in central and south India. The scientific propositions, artefacts and practices vis-à-vis this strategic and economically valuable timber species will be studied to point towards the vectors and actors of knowledge transmission in the colonial world (Raj, 2007). The environmental history of teak is expected to shed new light on resource-making, extractive colonialism and socio-ecological transformations in south Asia.

1011-350 on Thursday, 24.08.2023, 14:15-15:45

Unitobler – F-121

Walking through environmental history with Ramon Gonzalez. A discussion on Prof. Angus Wright's legacy. (H)

Organiser:

Marco Armiero, Universitat Autonoma de Barcelona, Spain

Chair:

Marco Armiero, Universitat Autonoma de Barcelona, Spain

Presenters of the Roundtable:

Marco Armiero, Universitat Autonoma de Barcelona, Spain

Stefania Barca, University of Santiago de Compostela, Spain

Eunice Nodari, Federal University of Santa Catarina, Brazil (V)

Sandro Dutra e Silva, State University of Goiás, Brazil (V)

Donald Worster, University of Kansas, Lawrence KS, USA

Abstract:

Prof. Wright, who died on October 21st, 2022, was a leading figure in Latin American environmental history. His volume *The Death of Ramon Gonzalez*, published for the first time in 1990, is a landmark for every scholar who wishes to work on capitalist agriculture and pesticide and their effects on workers and the environment. That volume implied a significant revolution in the environmental history field. At a time when scholars were discussing the borders of the discipline, Prof. Wright proposed an approach that bridged the social and the environmental, revealing the entrenched connections between our ways of producing and the health of people and the environment. All his scholarship was deeply rooted in his commitment to social and environmental justice in Latin America and beyond. This roundtable aims to reflect on his legacy, exploring Prof. Wright's contribution to the development of the environmental history field, perhaps not recognized as it should have been.

1012-496 on Thursday, 24.08.2023, 14:15-15:45

Unitobler – F-122

Introduction to Science for Policy: the US perspective

Organiser:

EnvHist4P

Chair:

Adam Izdebski, Max Planck Institute of Geoanthropology, Germany

Presenters:

Frances Colon, Center for American Progress, Energy and Environment & The President's Council of Advisors on Science and Technology, USA

Abstract:

During the workshop, ESEH members will have further opportunity to meet and discuss with the plenary panellists Frances Colon and Pedro Conceição. Each of them will present a short presentation on engaging with policy and political institutions - in the US and UN context - followed by Q&As.

1013-C07 on Thursday, 24.08.2023, 14:15-15:45

Unitobler – F-123

Glaciers (H)

Organiser:

ESEH Programme Committee

Chair:

Christian Rohr, University of Bern, Switzerland

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Paper 1:

Sandra Lösch, University of Bern, Switzerland

A blessing or a curse? The revealing of past and present human remains in Swiss alpine glaciers

The effects of global warming on alpine glaciers is a relevant topic from an ecological and economic perspective. The Swiss Alps are at the centre of such discussion, since they include more than half of European glaciers. At the same time, retreating glaciers allow the recovery of traces of ancient and modern human relationship with alpine areas. These include archaeological and forensic evidence related to ancient mountain routes and access to areas for recreational purposes. Given their cultural, legal, and ethical relevance, and issues related to their identification and recovery, it is important to be able to provide forecasts about future findings. Here, we propose a joint analysis of the density of finds from alpine areas and estimated rates of glaciers retreat.

Specifically, we compiled a database including human remains found in Bernese and Valais glaciers since 2009, considering a threshold of 1 month post-mortem interval. We classified individuals based on sex, age-at-death, location and altitude of discovery, and using additional variables. We then modelled the number of finds based on these variables, glacier areas and glacier melting rates.

We identified a minimum of eight cases with post-mortem interval ranges from 3 months to 53 years. All individuals were males. Considering our sample and an estimated loss of glacier area of ca. 45% by 2050, we postulate around 20 finds of human remains until 2050 as plausible estimates for the glaciers of the Canton of Bern and the Upper Valais.

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Paper 2:

Christian James Drury, Durham University, United Kingdom

Glacier tours in the Northern Playground: Norwegian mountain landscapes in British travel writing, 1850-1914

In the second half of the nineteenth century, Norway became an increasingly popular destination for British tourists. Mountainous regions of the country were visited by travellers from abroad, as well as urban Norwegians, and organisations like Den Norske Turistforening [the Norwegian Trekking Association] constructed infrastructure to make mountain travel increasingly comfortable. For many British travellers, mountain space allowed them to enact their complicated relationships to modernity, escaping the urban and industrial at home for a country they regarded as prelapsarian, but also using networks of guides, huts and roads to travel quickly and safely through previously challenging terrain.

The published travelogues of British mountaineers like William Cecil Slingsby and Elizabeth Le Blond offer

a fascinating account of their interaction with people, place and space in the mountains. Moreover, other British travel writing from the late nineteenth century shows how travellers who were not mountaineers also entered mountainous areas or made short trips on prominent Norwegian glaciers such as Svartisen and Folgefonna. An environmental history of tourism around mountains and glaciers in Norway in the period can indicate the significance of these spaces to transnational co-constructions of nation and landscape.

By looking at depictions of mountains and glaciers in travel writing, as well as visual depictions in art and photography, we can consider historical relationships to these places as spaces of escape, as well as the impact of tourism on the shifting economies and meanings of mountains and glaciers in Norway in this period.

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Paper 3:

Tatiana Saburova, Indiana University, Bloomington, USA (V)

From «Siberian Switzerland» to Tian-Shan in Exploration of Glaciers and Rivers at the Turn of the 20th century.

This research is a part of my project about exploration of the Russian empire's borderlands. It examines expeditions to Semirechie or Zhetsu led by Vasily Sapozhnikov (1861–1924), a Tomsk University professor, which resulted in the production of topographic maps, of a meteorological diary, more than five thousand sheets of an herbarium and five hundred photographs. What kind of representations of nature, the environment, and of the dynamics of interaction between nature and humanity can be discerned on the basis of his research? The Dzungarian Ala-Tau and Central Tien-Shan Mountain ranges are featured prominently in the works of Sapozhnikov. This stemmed from his overall interest in glaciology, uniting his research on the Altai and Semirechie regions, which highlighted the existing glaciers and their changes over the time. Sapozhnikov's long-standing passion for alpine settings stemmed from his earlier studies in Germany, when his first of many hiking trips in the Alps took place and he was entranced by the beauty of alpine landscapes and vegetation. His fascination with mountains carried with him to Siberia and his research in the Altai region—commonly called the «Siberian Switzerland» and in his notebooks he frequently made entries of «Alpine» specimens, then to Semirechie. Sapozhnikov's attention focus was upon how the movement of the glacier altered the landscape and how that contributed to the formation of river systems. Mountain ranges were examined in terms of their impact on the climate of the plains of Semirechie, in so doing changing his research optics from glaciology to colonization.

15:45- 16:30

Mensa/Entrance Area UniS & Unitobler

Coffee Break

1101 on Thursday, 24.08.2023, 16:30-18:00

UniS – S 003

ESEH OGM

1102 on Thursday, 24.08.2023, 18:00-19:00

Unitobler – F-121

NextGATE meeting

1103 on Thursday, 24.08.2023, 18:00-19:00

Unitobler – F-122

Rachel Carson Center for Environment and Society Alumni meeting

1104 on Thursday, 24.08.2023, 18:00-19:00

UniS – A 015

Incoming ESEH Council of Regional Representatives (CRR)

1105 on Thursday, 24.08.2023, 19:00-20:00

UniS – A 015

Incoming ESEH Board

Friday, 25 August 2023

1200-190 on Friday, 25.08.2023, 9:00-10:30

UniS – S 003

Dredging, Flooding and Draining: Seeking to Control Rivers in Britain and the United States, 1750-1950

Organiser:

Matthew Evenden, University of British Columbia, Vancouver, Canada

Chair:

Graeme Wynn, University of British Columbia, Vancouver, Canada

Abstract:

Humans have sought to control waters over millennia. Rivers have been diverted, diked and dammed; their foreshores have been drained and settled, their riverbeds dredged. These various interactions have produced complex cultures of water and control, given rise to settlements and institutions, and shaped the role of rivers in human societies and economies. As dynamic environmental forces, rivers have in turn undermined control structures and with them human institutions. Communities have been flooded and their roads severed. Attempts at dredging have sometimes resulted in new patterns of erosion and gravel accumulation. When it comes to rivers, control and hubris have often been shown to be related concepts.

Coming at these themes from the perspectives of two different disciplines (Geography and History), and three different regions on two continents (Cumbria, the Thames valley and the Columbia River) from the mid-eighteenth century through the mid-twentieth century, this session seeks to understand the different purposes and effects of human projects of river control. While pointing up common patterns and processes, they also reveal the profound importance of time, place and regional context. Not only did technologies of control evolve from the late eighteen to the mid-twentieth century, but so too did the social and political contexts of floodplain settlement and drainage institutions. The local, regional, national and international connections of places also shaped how projects of control were imagined and realized. The ongoing rhythm of human interactions with rivers was constantly remade but often in different keys.

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Paper 1:

Matthew Evenden, University of British Columbia, Vancouver, Canada

Dredging the Thames: The Ballast Trade, the Riverbed and the Transport of Gravels, 1750-1850

In the age of sail, mariners ballasted their ships with stones or heavy objects to lower their center of gravity at sea. In some ports, ballast points or islands were named where rocks could be collected by sailors; in others crews had to scavenge on beaches. In London, on the River Thames, a more organized system emerged to dredge the river of sands and gravels to keep the commercial river free of shoals and then to export the material from London as ballast on outgoing vessels. Between the mid-eighteenth and the mid-nineteenth century, the ballasting of ships removed between 200,000 and 600,000 tons of riverbed sands and gravels every year. Organized by the Trinity House Corporation under royal charter, the ballast trade transported Thames gravels along all commercial routes from New South Wales to Newfoundland. At destination, vessels unloaded ballast either in the water, usually illegally, or on shore at designated ballast grounds. The ballast trade changed the bed of the Thames and created a pathway for mass material transfer overseas. Attached to the ballast, seeds, plants and insects also made the journey. This paper focuses on the riverine impacts of the ballast trade, drawing on the surviving papers of the Trinity House

Corporation, and examines the disposal sites where ballast accumulated.

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Paper 2:

Uwe Lübken, Ludwig Maximilian University Munich, Germany

Vanport and the Columbia River: An Environmental History

Vanport, Oregon, was created in 1942 as a huge public housing project to accommodate thousands of people who had come to the region to work for the Kaiser Shipbuilding Corporation. Erected between the city limits of Portland, Oregon, and the Columbia River on reclaimed bottom lands, Vanport was entirely inundated by a flood in 1948 and never rebuilt. At that time some 18,000 people, down from the wartime peak of 40,000, still lived in Vanport, about a third of them African Americans. This paper will focus on the importance of the Columbia River for the fate of Vanport beyond its role as an agent of destruction.

The Columbia River has not just ended the history of Vanport, it has also enabled it. The site was chosen on purpose because the floodplain offered flat and uncontested land beyond the city limits of Portland that could easily be developed and was close to the shipyards – at the price of huge environmental risks that Vanport residents were exposed to. This paper will interrogate the social and ecological history of the site, both before and after the flood. It will pay attention to indigenous traces along the Lower Columbia River, to early hydrological transformations by the advancing settler society and to the post-disaster appropriation of the place. Today, Vanport is the subject of a wide array of memorial activities that highlight the complicated and fascinating history of this place.

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Paper 3:

Leona Skelton, Northumbria University, Newcastle, United Kingdom

Draining Cumbria's River Eden Catchment: Administrative and Legal Transformation over the Twentieth Century

This paper tracks the legal and administrative parameters of living with the River Eden and its tributaries in eastern Cumbria over the twentieth century, moving from small-scale, local Drainage Boards to regional River Boards, to the centralised, macro-scale, national Environment Agency in 1995. Regardless of the particular administrative and legal context of regulation, intimate human and non-human relationships with water, flooding and drainage nevertheless come through clearly in a plethora of archival documents, including minute books, petitions, correspondence, photographs, reports, maps and plans. It argues that larger, post-1945 organisations ultimately damaged some of the earlier, long-established intimate understandings of how water flowed through landscapes, lives and livelihoods. These earlier, informed and confident voices connect back to pre-technocratic, historically important relationships with the Eden. The paper unpacks in detail the powerful, and often damaging intersection between top-down administrative transformations and social and cultural relationships with water on the ground. The paper presents a fast-changing story in the form of an «eco-biography» of the Eden Catchment, reminiscent of Mark Cioc's important work on the Rhine (2002) and of my own work on the River Tyne catchment (Tyne after Tyne, 2017). Moreover, it explains in depth how the two-way relationships between Eden waters and communities, animals and people was very heavily shaped by administrative and governmental organisations' priorities and cultural leanings, legislation and funding policies and systems.

1201-374 on Friday, 25.08.2023, 9:00-10:30

UniS – A-022

Frozen Time in Melting Ice: Seeing and Scaling Climates in the Nineteenth and Twentieth Centuries

Organiser:

Alexis Rider, University of London, United Kingdom

Chair:

Lachlan Fleetwood, Ludwig Maximilian University Munich, Germany

Abstract:

During the late twentieth century, ice became established as vital matter for understanding climatic trends; through ice coring and isotope analysis researchers could trace temperature and climatological events thousands of years into the past. But for more than a century before these methods were established, frozen water, ranging from enormous glaciers to minuscule snowflakes, was used to tell the time of atmospheric processes and geophysical change. Ranging across the cryosphere from the European Alps and Polar regions to less-storied locales in the Karakoram and Japanese Alps, the papers on this panel discuss representations – from tabulated data sets and graphs to sketches, watercolour landscapes, and photographs – through which ice was constructed as a means of knowing climate and time.

By digging into different examples of ice-focused scientific research, this panel also develops recent work that historicises scaling (Coen: 2016, 2018), tracing the production and reception of claims that individual ice formations and localised observations over short periods unveiled truths applicable across vast spaces and long timeframes. Working with diverse visual, narrative, and quantitative source material, the three papers therefore suggest new ways of thinking about the development of ice as an instrument, icon, or proxy of climate. They thus look beyond ice cores to show how ice in myriad forms helped make visible, and legible, change over the Quaternary period.

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Paper 1:

Thomas Simpson, University of Cambridge, United Kingdom

The politics of periodicity: glaciers, climate theorising, and empire

In the latter half of the nineteenth century glaciers became the vital resource for an array of conjectures about the temporal variability of climate. In this paper, I tell two interwoven stories about ice and climate theorising. First, I suggest that encounters with glaciers and glacial deposits encountered at the settlement and extractive frontiers of expanding empires fundamentally reshaped theories predicated on the glaciers of the European Alps. My argument here builds on the recent call for «a new antipodal history for the Anthropocene» (Bashford, Chakrabarti and Hore: 2021) by showing how new climate periodicities both emerged from, and provided alibis for, particular configurations of imperialism. Second, I show that the single most influential climate periodicity of the late nineteenth century, Eduard Brückner's 35-year cycles, was rooted in practices of interacting and thinking with glacial ice innovated not only in the Alps, but also in the Greater Himalaya and other ranges across Eurasia. Drawing on data from across the European imperial globe, Brückner and many who took up his «oscillations» over the following decades intermingled geophysics and geopolitics every bit as much as contemporaneous sunspot theorisers who sought to naturalise famine and thereby excuse colonial misrule (Davis: 2001). Overall, then, the advent of the notion of climate as radically variable on a global spatial scale and on short timescales—a key underpinning of climate science today—was facilitated by, and put to work in service of, the politics of high imperialism.

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Paper 2:

Floris Winckel, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

Snowflakes as Archives

There is a strong interest amongst natural scientists and environmental humanities scholars alike in ice as an archive of deep time and an indicator of changing global temperatures. But this interest has predominantly been directed at massive ice structures, like glaciers and Polar ice sheets. In this paper, I aim to look at how ice, time, and climate coincide in icy bodies of a much smaller scale: snowflakes. Specifically, I will examine historical attempts to use snowflakes as «aerological sondes», a way of remotely measuring atmospheric conditions. It can take up to two hours for a snowflake to fall to the ground, during which time its growth is affected by the atmospheric conditions it encounters along the way. For centuries, scientists have tried to read the atmospheric fingerprint of a snowflake's form. Once on the ground, these objects might only last for a few seconds or minutes, before becoming one with the snowpack. During this transformation, the information carried by the snowflake changes: it is no longer form, but chemical composition that can tell us about the atmosphere it fell through. Gases are captured in airspaces between crystals, which become air pockets in the ice that when analysed provide a glimpse into the climate of the past. Snowflakes therefore function as both archives of shallow time and deep time. This paper reconstructs the history of snowflakes as archives, drawing from the past four centuries of observations carried out in the Polar regions, Europe, and Japan.

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Paper 3:

Alexis Rider, University of London, United Kingdom

The Visual Language of Glaciology: Etudes sur les Glaciers and the Technicality of Deep Time

The advent of glacial theory in the nineteenth century has been described as a final footnote in the formation of geology, albeit a particularly important one for scientific theories of deep time. Scholars have traced the controversy and tensions that surrounded debates over the power, and agency, of ice, emphasizing the role of non-specialist knowledge in early understandings of glacial action and role of nationalism in resistance to theories of a past ice age. This paper takes up a key publication in the popularization—and eventual acceptance—of ice age theory, Louis Agassiz' *Etudes sur les Glaciers* (1840), to explore an overlooked aspect of this historical episode: the role of illustration in repositioning ice from sublime spectacle to geologic agent.

After being ridiculed for his grand ice age theory at a Société Helvétique des Sciences Naturelles meeting in Neuchâtel 1837, Agassiz set out into the Alps to write a book that solidly backed his claims. He took with him a Parisian lithographer, Joseph Bettannier, to illustrate the moraines and mountains in which Agassiz saw evidence of past ice action. The resulting fifteen lithograph landscapes, each with an onionskin overlay of outlines and labels, can be read as a visual hypothesis: the deep time of ice was visible when the vastness of the sublime was fused with technical illustration. By exploring this early example of the «visual language» of glaciology, I therefore show how pivotal images were in locating ice—an ephemeral, often absent material—in the geo-logics of the nineteenth century.

1202-129 on Friday, 25.08.2023, 9:00-10:30

UniS – A-122

Nature, Culture, the Garden in Early Modern and Modern Europe

Organiser:

Judith Vitale, University of Zurich, Switzerland

Chairs:

Judith Vitale, University of Zurich, Switzerland

Émilie-Anne Pépy, Université Savoie Mont-Blanc, France

Abstract:

Philippe Descola has argued that the West's relationship to the environment is characterized by the dichotomy between nature and culture. Nevertheless, recent concepts of the «tiers paysage», or green cities suggest that the distinction between natural and artificial environments is fluid and depends on economic, social, and cultural formations. The panel considers the multi-layered meaning of the garden to explore shifting constructions of nature and culture in early modern and modern Europe. Particular attention is directed to alpine flora as «wilderness» opposed to, and an element of the garden.

In the sixteenth and seventeenth centuries, foreign seeds and bulbs entered European gardens as a considerable cultural and economic capital. Also, due the association with the Garden of Eden and the perception of the garden as a microcosm representing the vegetation of the world, including mountains and plains, the garden was a space of knowledge production. According to Marianne Klemun, in the seventeenth and eighteenth centuries, the three tools that naturalists relied on to experiment with crops and flowers from distant regions were the botanical garden, the island, and the ship. As the nineteenth century progressed, professionalizing botany increasingly rejected garden plants as relevant to taxonomy and collected species in local industrial areas, along railroads and in natural environments, such as marshes, and mountains. The fashion of alpine gardens reflects the interest in native plants, arising at the time. Thus, «wild» plants, including flowers and meadows of mountains, came to the forefront of preservation movements and extractive commodity chains, whereas the garden stabilized its function as a secluded space, a retreat from industrial as well as imperialist enterprises. At the same time, older concepts declined only gradually. The garden remained an emblem of botanical enquiry, a site of agricultural and horticultural experimentation, and a mirror of nature.

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Paper 1:

Edwin Rose, University of Cambridge, United Kingdom

Assembling God's Global Environment in the Cambridge Botanic Garden

Hiking across the Alps in the Canton of Bern in June 1779 Thomas Martyn (1735–1825), third professor of botany at the University of Cambridge, collected several plant specimens, a range of seeds and examples of living plants to be sent back to the Cambridge Botanic Garden. Established in 1760, the Cambridge Botanic Garden soon became a repository for a global range of plant species, all of which were designed to replicate natural environments ranging from the edges of the Swiss glaciers to the swampy rainforests of Sumatra. However, in comparison to many earlier and contemporary gardens that were designed to facilitate the activities of medical schools or investigate the economic properties of plants, the Cambridge Botanic Garden was designed as a site for students and professors to investigate the global extent of God's creation in the vegetable kingdom. Examining the processes of gathering and organising plants obtained from across Europe, the Americas, Asia and the Pacific, this talk examines how natural theological interests integrated the frameworks of university collecting into imperial projects. It explores the practices used to manage diverse forms of information ranging from published descriptions to living plants and the structures used to organise these in Cambridge.

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Paper 2:

Louise Couëffé, Université d'Angers, France

Indigenous plants and Regional Nature. Garden and herbaria in the Alps and Western France in the late 19th Century

In 1881, M. Richard (1836-1896), a French amateur of Botany, published a short treatise about the ornamental culture of indigenous plants from Western France. This publication fell within a wider movement promoting the use of local plants in the making of gardens at the end of the 19th century, supported by botanists, horticulturists, and landscapers. One of the greatest (and paradoxical) incarnation of this tendency was the alpine garden, which served scientific and aesthetic aims (knowledge production, botanical teaching, and aesthetic enjoyment in private or public gardens). While herbaria indicate that local and regional flora had been valued as objects of collection and botanical inquiry (in comparison with foreign specimens), new arrivals of spontaneous and cultivated species, brought about by globalization, led to a greater appreciation of local species in both herbaria and gardens in the late 19th century. Knowledge of local flora increased, and local flora became associated with features of regionalism. In this context, the interest in local species – both in ornamental gardens and herbaria – questions the criteria that were used to define and represent regional nature.

I use herbaria, botanical and horticultural publications and advertisements addressed to amateurs of science and horticulture to understand the making and the circulation of shifting and overlapping representations of nature in various regions of France. First, I identify which species were valued as regional in herbaria and gardens to understand how the relationship between these species and spaces contributed to the creation of different representations of nature. Second, the circulation of species depended on networks of collection and commodification of plants in natural and sometimes cultivated spaces that aimed to preserve indigenous and spontaneous plants. Thus, the circulation of those plants contributed to the spreading of representations on alpine and local nature, albeit valued and appropriated by amateurs of science or horticulture in a variety of ways. Whereas alpine gardens were widely promoted and highly valued, the success of ornamental gardens with local species from western France was uncertain. In herbaria, regional floras from both areas were an object of botanical inquiry as well as an object of collection that shaped a regional and floristic patrimony.

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Paper 3:

Halea Ruffiner, University of Zurich, Switzerland

Discoveries in the Urban Flora of Zurich Amid Concerns over Nature Preservation in Switzerland around 1900

Today, how to deal with non-native plants that thrive in urban areas is a controversial topic in nature preservation debates. Around the beginning of the 20th century, botanists Otto Naegeli and Albert Thellung registered new plant species growing in urban and industrial areas in and around Zurich with excitement, wondering how these «foreign» species might compete with local ones in the future. They systematized their findings in «The Ruderal and Adventive Flora of the Canton of Zurich», which was published by the Zurich Botanical Society in 1905. The compilation of regional and cantonal floras such as Naegeli and Thellung's coincided with the beginnings of nature preservation in Switzerland. In 1906, Carl Schröter, who had taught Naegeli and Thellung, was a founding member of the Swiss Commission for Nature Preservation. At the time, the commission was interested in creating nature reserves in Alpine regions, where the natural landscape would be protected from the effects of urbanization and industrialization.

1203-308 on Friday, 25.08.2023, 9:00-10:30

UniS – A-126

Air pollution in the modern age

Organiser:

Wout Saelens, University of Antwerp, Belgium

Chair:

Peter Thorsheim, University of North Carolina, Charlotte, USA

Abstract:

Air pollution is arguably the greatest environmental challenge of the modern age. From the late eighteenth and nineteenth centuries onwards, coal became the new source of energy in many industrialising regions. And with it came ever-greater clouds of smoke that permanently filled the air. Many urban and national governments in the nineteenth century may have been quick to take measures for «cleaning up» the environment by improving sanitation and organising trash and human waste removal. Yet, little was done to clean up the «big smoke» of coal, even though this was – perhaps even more than water and soil pollution – a very visible and pertinent form of nuisance. In current historiography it is often held that the problem of smoke simply did not exist until it was «invented» by scientists and medical experts around the turn of the twentieth century. How can we explain the apparent «great silence» on the environmental impact of coal during the early stages of the industrial revolution? When did governments and citizens in the nineteenth century recognise smoke and soot as a nuisance, and when did they not? And how could the voices to abate smoke eventually be turned into an effective movement during the twentieth century? This session wants to delve deeper into the issue of air pollution in the modern age. It wishes to discuss the matter by approaching the legal regulation of nuisance, the political negotiation behind it, scientific discourses on health and pollution-related disease, popular reactions against smoke, etc. – on the urban, regional, national and international level and from the late eighteenth century until the early twenty-first.

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Paper 1:

Wout Saelens, University of Antwerp, Belgium

The social experience of the transition to coal. Popular reactions against smoke pollution in the early industrial city: Ghent, c. 1780-1880

Ghent – the first industrial city on the European mainland – was quick to embrace coal as a new source of energy in the eighteenth and nineteenth centuries. How was this transition to coal and heavy pollution experienced by the citizens of the early industrial city? Until now, historians have usually viewed coal smoke as only becoming problematic from the early twentieth century onwards, after the disappearance of miasma theory. Before that, it is often held that people were simply indifferent towards air pollution. However, what was «officially» considered a nuisance by government and science was not necessarily shared by all urban citizens, who actually lived in the city and who were daily confronted with the problems of smoke. What is missing in the dominant narratives in energy and pollution history is the voice of the people and the way «environmentalisms» were potentially constructed from below during the early stages of industrialisation. In this paper, I will study the delicate and often ambiguous interaction of city dwellers with coal. When was the smoke of coal perceived as a sign of progress and employment? And when was it contested within civil sensibilities towards health and environment? Petitions (for the late eighteenth century) and *de commodo et incommodo* registers (for the nineteenth century) will be used to grasp the different social experiences and their different sorts of «environmentalisms» (those of the bourgeois resident, the factory owner and the working class, among others) that were behind the

transition to coal and smoke pollution in the early industrial city of Ghent.

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Paper 2:

Samy Bounoua, Université de Lille, France

The insoluble problem of industrial fumes in the Lille region, 1810-1865

At the beginning of the 19th century, the Lille region (mainly Lille, Roubaix and Tourcoing) was already marked by industrialisation. The increase in the number of factories worsened the problem of pollution, particularly air pollution. The disagreeable and unhealthy nature of the fumes produced by steam engines was recognised by the decree of 1810. Then, complaints against these fumes multiplied, as they were accused of spreading a foul odour, causing disease and destroying vegetation. Moreover, this source of pollution did not only harm the air, but also water, soil and buildings. In the middle of the 19th century, the fumes became a major concern for the inhabitants as well as for the local political authorities. Under the influence of the London Smoke Abatement Act of 1853, they called for changes in legislation to improve the quality of the air and the environment in Lille and its surroundings. Furthermore, scientists, politicians and engineers proposed to generalise the use of «smoke-burning» devices, which had been made compulsory for steam engines by a decree in 1865. However, these devices were not really effective. Moreover, for industrialists, some notables (journalists, professors, scholars, etc.), but also many workers, smoke was above all a sign of prosperity and economic power. Writers also praised the chimneys and their fumes because the latter would give the Lille region its identity. Fumes were then seen, at worst as a necessary evil, at best as a blessing.

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Paper 3:

Janne Mäkiranta, University of Turku, Finland

The Decline of Lichens: Using Urban Flora as a Measure of Clean Air in Twentieth Century Europe

The fact that many plants and trees did not fare well in urban environments was noted already in the increasingly polluted nineteenth-century European cities. Lichens were observed to be especially sensitive to polluted air. First suggestions to use lichens as measures of air quality were made already in the 1860s France. From the sporadic studies in the nineteenth century, the idea of plants as indicators of air pollution grew into a transnational expertise during the first half of the twentieth century. This expertise formed part of the rising field of air pollution research.

In my presentation I will examine how the use of urban flora as indicators provided additional and sometimes even competing solutions in the effort to define the line between polluted and acceptable urban air. I will show how this idea changed from vague notions of clean air into observing the specific sensitivities of different plants for different pollutants. This made urban flora a more compelling indicator for the experts but it also caused conflicts with the public who often regarded dead flora as a clear sign of unhealthy air. Although seeing plants as indicators of air quality initially supported the close unity of human and environmental health, they were later turned into analysing instruments that strengthened the separation between healthy flora and human health.

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Paper 4:

Stéphane Frioux, Université Lumière Lyon 2, France

From industry to urban lifestyles: changing faces of air pollution (France, 1950s-1970s)

Until the 1950s, air pollution in Western countries was mainly attributed to industry. The search for black,

thick and prolonged smoke was the administrative expression of this correlation between industry and pollution. After the Great Smog of London in December 1952, research on urban air pollution intensified, and domestic heating and private cars were increasingly blamed. This paper will focus on the transformation of environmental expertise on polluted air in the context of the years of rapid urbanisation and strong growth in consumption and production, by combining analyses at the local, national – France – and international levels.

At a time when urban households were being targeted (control of boilers, education of drivers), there was a difference of appreciation with them, as evidenced by the archives which continue to show complaints against industrial fumes and odours. Finally, the paper will show how the emergence of an environmental policy in France did not lead to draconian regulatory provisions for industries until the European authorities launched an action via the directive on sulphur dioxide in 1980.

1204-384 on Friday, 25.08.2023, 9:00-10:30

UniS – F 005

From the mountains to the river mouth. Sedimentary processes and alternative genealogies of river basin management

Organiser:

Santiago Gorostiza, Sciences Po, France

Chair:

Debjani Bhattacharyya, University of Zurich, Switzerland

Abstract:

Building on the conference theme of mountains and plains, this panel explores the history of river basin governance by focusing on the importance of sedimentary processes. At least since the eighteenth century, scholars highlighted the connectivity between mountains and plains, portraying river basins as «natural» units of government and pointing to the relation between forest cover and erosion in the mountains and the circulation of water and sediments in rivers. However, historical research on river basin management has mostly paid attention to water, leaving sediment largely unaddressed. In addition, research on the creation of river basin authorities has focused on the US, with the emblematic case of the Tennessee Valley Authority and its long-lasting influence. This panel delves into these research gaps through the cases of the river basins of the Ebro, Po and Ganges. The case of the Ebro shows that river basin planning was put into practice before the most famous American TVA and that policies for sediment control were one of the innovations launched by the river basin authority. While the Po River Basin Authority was established only in 1989, the first projects for a watershed institution went back to 1927 and debates linking sedimentary continuity in the river basin with flood protection can be traced to the eighteenth century. Finally, the case of the Ganges shows how the management of sediment in the river basin was built on the idea of natural mountain erosion as a driver of floods, while leaving other factors unaccounted for.

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Paper 1:

Giacomo Parrinello, Sciences Po, France

Watershed Governance and Sedimentary Continuity in the Po River Basin, 1927-1989

The Po River Basin is the economic and urban powerhouse of Italy. In spite of its importance, a Po River Basin Authority was only established in 1989, later than elsewhere in Europe and North America. This Authority, however, was not the first watershed institution in the Po River. It was notably preceded by

another basin-wide institution, the Magistrate for the Po, established in 1956 but debated since at least 1927. This paper surveys the various stages of these debates and institutional reforms to understand the genealogy of watershed governance in the Po. By tracking the multiple iterations of watershed governance and the debates that accompanied them, this paper shows the centrality of flood protection and emphasizes the role of sedimentary continuity. Since the eighteenth century, scholars of rivers had claimed that excess sediment raised the bed of the Po River and was thus responsible for flooding. Land use control at the basin scale was therefore the only effective way to prevent floods and the main justification for watershed scale governance. This old idea, contested but never forgotten, resurfaced in the twentieth century and played a crucial role in the debates that accompanied the first project of a watershed institution in 1927-28, the establishment of the Magistrate in 1956, and the creation of the Po Watershed Authority in 1989. Through this case study, this paper therefore contributes to expand the understanding of the history of river basin governance beyond multipurpose river development and include the role of sedimentary processes.

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Paper 2:

Saumya Pandey, Chr. Michelsen Institute, Bergen, Norway

The «origins» of Ganga basin sediments: a 20th century tale of the «Himalayan-Ganges Problem»

This paper traces the emergence of the «Himalayan-Ganges Problem» as a political problem in Nepal by examining what happened when debates about the environmental degradation in the Himalayas collided with the demand for more riverine sediment management in the twentieth century. In 1983, the Himalayan-Ganges Problem came to be defined as the problem of high load of sediment transfer from the Himalayas in the Ganga River basin. Hydraulic and irrigation experts, who engineered solutions to the meandering rivers, played a significant role in the management, governance, and transformation of river basin sediments. I show how, on the one hand, there was a demand for the fertile silt that spread on agricultural lowlands when Himalayan rivers spilt over. Alluvial silt nourished floodplains, in the minds of engineers and technical experts. On the other hand, I show that when it came to increase surface run off during the monsoons and flash flooding and siltation increase, these engineers forcefully opposed the sediment flow from the Himalayas into rivers. To this end, I examine how sediment management in the Ganga river basin in the 1980s and 1990s came to centre on this idea that natural mountain erosion was the primary driver of devastating floods in the plains, leaving the capitalist and political ambitions for this ecosystem largely intact. In doing so, I complicate historical accounts that frame sediment management in river basins as a story about the plains to understand the growing role of mountain-plain relations in conceptualization of sediments.

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Paper 3:

Santiago Gorostiza, Sciences Po, France

«Reducing all kinds of sediment»: The Ebro River Basin Authority (1926) and the axiom of sediment as nuisance

Whether they examined the environmental history of Spanish water politics, the intellectual roots of the river basin planning idea or the global history of the New Deal, several authors have coincided in pointing to the creation of the Confederación Sindical Hidrográfica del Ebro (CSHE) in 1926 as a precedent of the emblematic Tennessee Valley Authority. Given such an agreement in the literature, the lack of research on the creation of the CSHE constitutes a surprising gap. This paper explores the origins of the CSHE and of river basin authorities in Spain focusing on one of their key features: the attention they bestowed to sediment control via reforestation and soil erosion control. The CSHE integrated the work of foresters and engineers and initiated reforestation policies aimed at regularising river discharge and decreasing sediment transport. That sediment from mountain torrents in the upper river basin was a nuisance became

an axiom under the CSHE directives, which established that action should be taken to reduce «all kinds of sediment». These discussions also took place at the international scale: the challenges that sediment presented for infrastructures were one of the topics discussed at the World Energy Council conference that the CSHE organised in Barcelona in 1929. This gathering, devoted to the «integral use of water flows», brought together delegates from 27 different countries. Through the case of the CSHE, this paper delves into the international genealogy of river basin governance and highlights the importance of debates about sedimentary continuity.

1205-254 on Friday, 25.08.2023, 9:00-10:30

Unitobler – F 013

«The Plains of the Sea»: DEEPMED, the Deep Mediterranean Environment, and HGIS

Organiser:

Lino Camprubi, Universidad de Sevilla, Spain

Chair:

Lino Camprubi, Universidad de Sevilla, Spain

Presenters of the Roundtable:

Alberto Celis, Universidad de Sevilla, Spain

Effie Dorovitsa, Universidad de Sevilla, Spain

Basak Sarac, Manchester University, United Kingdom

María Villarín, Universidad de Sevilla, Spain

Abstract:

With the phrase «the plains of the Sea», historian Fernand Braudel referred to his subject topic (The Mediterranean) as a surface enabling connectivity between distant port. But by the mid-20th century, while Braudel and other historians and anthropologists were theorizing about the sea as Surface, scientists, military, engineers, and economists were busy reconfiguring seas and oceans as volumes. As they charted ocean currents and the shape of the seabed, they gave a completely different meaning to Braudel's phrase. The scientific, political, and environmental significance of the Mediterranean transcended connectivity as the sea became traversed by cables, pipelines, submarines, and research vessels.

The ERC-funded DEEPMED project investigates the historical making of the 3D Mediterranean. It explores who and how produced the deep geography of this maritime space, the way human and environmental times interact in the deep sea, and the scientific and political global significance of the volumetric Mediterranean Sea. This roundtable presents the work in progress of the DEEPMED interdisciplinary team. We would also like to share our experience with digital humanities and discuss with the public the challenges and advantages of the Historical GIS approach to historical geography and environmental history.

1206-368 on Friday, 25.08.2023, 9:00-10:30

Unitobler – F 021

Toward a (Re)Definition of Mid-Mountain Environments

Organiser:

Benjamin Furst, Université de Haute-Alsace, Mulhouse, France

Chair:

Benjamin Furst, Université de Haute-Alsace, Mulhouse, France

Abstract:

Today, the mid-mountain (Mittelgebirge) is defined in relation to its altitude and that of its summits (1500 meters), which provides an entry point and a distinction from the so-called «high mountain» areas. However, the relationship with altitude remains recent: based on measurement tools that did not appear before the 18th century, it shaped the modern geographical and cartographic construction of these spaces as a «medium» or «intermediate» stage of mountain environments. This geographical definition is part of a modern and European naturalist «mondiation», ignoring population's relationships with the mountains. Other representations and uses must however be addressed for a comprehensive understanding of the mid-mountain environment over the longue durée: ecosystems, land use and social agrosystems, leisure activities...

As a whole, this panel proposes to (re)define mid-mountain ranges in three ways: by confronting its geographical definition with other representations of the mountain and its uses; by analysing the way in which modern definitions of mid-mountain have emerged within the different categories of actors; by questioning the methodological approach of such an environment. Indeed, studying the mid-range mountains through the prism of environmental history and, more generally, environmental humanities, implies problematising this object from the angle of interdisciplinarity, even if this means challenging the epistemology of each discipline.

Borrowing from history, geography, archaeology and natural science, the four communications will go beyond the geographical and administrative definition of the mid-mountains to explore what it meant and what it means to exploit, to circulate or to live on its slopes and its summits, from the ancient and medieval agro-pastoral activities to the summer and winter leisure of the 20th century.

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Paper 1:

Florie Giacona, Institut national de recherche pour l'agriculture, l'alimentation et l'environnement, France

The Construction of Differentiated Mountain Spaces and its Implications: the Invisibility of Avalanche Risk in the Vosges Mountains.

In France, the distinction between «high» and «medium high» mountain spaces did not always exist. For instance, until the twentieth century, with the exception of glacier's view and related mountaineering activities, many images and activities associated to the Vosges Mountains were the same as for the Alpine space. The study of snow cover and firn in the Vosges Mountains even contributed to understand the genesis of Alpine glaciers. Besides, a ski resort from the Vosges Mountains volunteered to host the 1924 winter Olympics.

However, the perception of the Vosges Mountains then quickly evolved with the rise of the distinction of differentiated mountain spaces, high and medium high mountain ranges. The latter concept became popular during the 1970's and is primarily defined with minorative or even depreciative attributes (a mountain for cows!), by contrast to those associated to high mountain ranges. Notably none of the characteristics generally associated to medium high mountain ranges point to a potential dangerousness of the terrain. This dichotomy between two different mountain spaces seems to have been integrated by local actors involved in the tourism sector and it extends to the institutional level in charge of natural hazards, notably regarding snow avalanches. For the latter, an explicit distinction is indeed made for risk management, which resumes to a low-cost-system in medium-high mountain environments.

Through an interdisciplinary approach combining history, geography, analysis of risk management policies

and understanding of avalanche activity, this communication thus shows how the relatively recent construction of differentiated mountain spaces results in the overlooking of snow avalanche risk in a territory where it is yet truly significant.

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Paper 2:

Claire Milon, Université de Sorbonne & Université de Strasbourg, France

One Step at a Time. Hiking in the German Mid-Mountains at the Turn of the 20th Century

The popularization of hiking in 1900-Germany is a key moment to study the complex relationship between an industrial country and the territories seen as «natural». Environmental history offers keys to understand this leisure, as an activity that structures specific areas, especially the mid-mountains.

This contribution tackles the distinction between hiking and mountaineering and reveals how this opposition arose. The development of the leisure society created these two categories: as alpinism was thought as an elitist activity for the upper-class since the beginning of the 19th, mid-mountains hiking became the field of the middle and working classes a few decades later. Many elements contributed to separate the two experiences: there are no life-threatening dangers, no guides, and no conquests in the mid-mountains. Eventually, one could even wonder if hiking is different from the more general movement of mass-tourism: this contribution aims to map the popular places to hike and compare them to the hot spots of emerging mass tourism.

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Paper 3:

Jean-Baptiste Ortlieb, Université de Strasbourg, France & University of Antwerp, Belgium

High-Vosges Summits: Interdisciplinary Approach to the Modern Construction of a Mid-Mountain Area.

The Southern Vosges, also called High Vosges («Hautes-Vosges») is the only sector of the Vosges massif whose summits exceed 1100 m altitude. The highest summits are characterised by a typical environment: rounded reliefs with altitude pastures of anthropic origin called «chaumes», on which the first proven human activity traces date back to the Bronze Age (Goepp, 2007). These open highland areas have been used for pastoral purposes since the medieval period at the latest and were then considered as a saltus within which were built complex and historically situated relationships between valley societies and a highland environment. This relationship was characterised by a social agrosystem in constant mutation (Thoen, 2004) which underwent a major reconstruction between the late Middle Ages to the Revolutionary period.

Through an interdisciplinary approach combining archaeology, history and geography, the presentation proposes to understand the mechanisms of this evolution leading to a modern construction of the Vosges as a mid-mountain massif. It will argue that the development of the Hautes-Vosges as well as the evolution of its representations was to the benefit of the State administrations that were asserting themselves at that time (Duchy of Lorraine, Habsburg power, Kingdom of France). These governments ended up constructing a coherent space, notably through cartography, that brought together the characteristics of a mid-mountain range (Mittelgebirge), combining criteria for the assertion of the pastoral model, accessibility, resources development, or classification of the present species.

Morvan and Jura through medieval and modern periods: interdisciplinary approach of land-use evolution in two mid-mountain areas

Paper 4:

Valentin Chevassu, Université de Franche-Comté, Besançon, France

Morvan and Jura through medieval and modern periods: interdisciplinary approach of land-use evolution in two mid-mountain areas

Morvan and Jura, two mid-mountain regions located in eastern France, are often described through regional historiography as cold and «hostiles» mountainous areas. Historical sources may also suggest that these highlands environments have been very lately shaped by men, thanks to medieval and modern clearings, despite quite low altitudes. Numerous paleoenvironmental analyses and recent archaeological survey, combined with written sources, now enable to renew this vision by giving us a pluridisciplinary insight on long-term land-use evolution. The systematic crossing between paleo-environmental, archaeological and written data into a Geographical Information System also enables to reassess the peculiarity of mountain environment and settlement during medieval and modern periods.

Both areas then appear to be characterised by several phases of increase and decrease impact of human activities from early Middle Ages to late Modern period. Comparisons between piedmonts and highlands, or between Morvan and Jura, happen to emphasise the differences of land-use dynamics within middle mountains. Written sources, as paleo-environmental data, highlight the differences of mid-mountain landscapes, linked with specific human activities since Antiquity. From High Middle Ages, settlement and management pattern shows in both studied areas a lot of contrasts, for example through elite distribution, feudal or ecclesiastical networks. Settlement patterns, rural communities and economical specialisations can then be described more accurately during Modern Times, showing deeper peculiarities associated with mountain environment.

1207-194 on Friday, 25.08.2023, 9:00-10:30

Unitobler – F 022

Nuclear Environments. Waste, Animals, Water and Infrastructure in the 20th and 21st centuries

Organiser:

Achim Klüppelberg, KTH Royal Institute of Technology Stockholm, Sweden

Aske Hennelund Nielsen, Friedrich Alexander University, Erlangen-Nürnberg, Germany

Chair:

Melina Antonia Buns, University of Stavanger, Norway

Abstract:

Nuclear technologies have played a decisive role in shaping natural environments since 1945. Atomic weapons have shaped landscapes and geographies through sustained nuclear testing, creating topographies of craters and distributed radioactive isotopes throughout the atmosphere on a global level. Nuclear power plants have through their construction upset waterways and shorelines and created new environments to better suit the placement of atomic energy installations. Animals have found themselves trapped within these changing environments, at the mercy of the Nuclear Industry and the personal of nuclear sites. Nuclear technologies have not only created physical craters and contaminated landscapes, but also mental craters, forcing scientific and local actors to mediate these changed environments. The mounting challenges of nuclear waste storage and re-naturalisation of formerly nuclearized landscapes pose theoretical and epistemological questions.

With this panel, we wish to examine some of the many ways that nuclear technologies have impacted,

shaped and transformed environments as well as the scientific discourses on these altering settings. The panellists discuss how different nuclear technologies and their usage has (re)formed environments since 1945, using different both national and international cases. In particular we examine France, the western Soviet Union, Sweden, the UK, and the US in an international perspective.

The panel consists of both junior and senior scholars from different research institutions in Germany and Sweden working with new perspectives and approaches on how to make sense of the nuclear environment of the past and today.

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Paper 1:

Aske Hennelund Nielsen, Friedrich Alexander University, Erlangen-Nürnberg, Germany

A Global Nuclear Environmental Infrastructure – The World Meteorological Organization and the International Atomic Energy Agency's Global Fallout Monitoring Program in the 1960s

The Hydrogen Bomb test «Castle Bravo» carried out by the US military in March 1954 in the Pacific caused a global controversy. The detonation of the bomb was much larger than projected, leading to widespread radioactive contamination. The World Meteorological Organization (WMO), a specialized agency of the United Nations, rushed to examine the issues of atomic weapons detonations and their impact on the weather. While the issue of nuclear weapons testing eventually was dropped owing to «insufficient information», the WMO would take great strides in the global monitoring of radioactive fallout. With the foundation of the International Atomic Energy Agency (IAEA) in 1957, the WMO and the IAEA started a global monitoring network for the radioactive isotope «Tritium» in rainfall. Using the global meteorological infrastructure of the WMO, over 100 stations in 67 countries collected monthly samples throughout the 1960s. However, while the WMO and the IAEA were formally partnered in this endeavour, several factors suggest that the IAEA came to play a dominate role, monopolizing the collection and distribution of meteorological data.

With this paper, I wish to highlight the coproduction of «the nuclear order» and global meteorological infrastructures post-1945. The production of knowledge on a global scale has been facilitated by what Paul Edwards has called «infrastructural globalism». Using the existing infrastructure and standards of the WMO allowed the IAEA to take epistemically ownership of knowledge of radioactive fallout, granting them a special position to decide both the conceptualization and standardization of this information, but also its dissemination.

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Paper 2:

Axel Sievers, Linköping University, Sweden

Nuclear Space and Storage Natures: Fixation of Ecologies, Naturalization of Waste and Uneven Development

The back end of the nuclear energy production cycle is constituted of landscapes of reprocessing and waste-storage. At the Sellafield nuclear facility in the rural region of North Cumbria, UK, the productive activities of reprocessing are shutting down, and the decommissioning and storage of nuclear waste material have become a key economic activity of the region. Operationalizing the internal and external dynamics of production of nature, the storage and decommissioning processes show how the management of nuclear waste not only forms a metabolic relation towards nature, but rather reorganizes natural environments into service producing entities. The production of nature is further investigated through the time, shape and form of the different categories of nuclear waste prevalent at the nearby Low-Level Repository at Drigg and the decommissioning and management of intermediate level waste at Sellafield. The study shows how extensive use of local natures, engineered, and repurposed into natural services, in

tandem with an increase in the circulation of waste, fixate and stabilize waste over time. The dual aspect of ecological fixation and spatiotemporal expansion intensifies the already established uneven geography of nuclear production by specializing the landscape as a site for waste storage. Producing an external nature with conditions of production promoting waste-management. At the same time, production of internal nature socializes the local natural environments and naturalizes nuclear waste as part of the landscape.

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Paper 3:

Achim Klüppelberg, KTH Royal Institute of Technology Stockholm, Sweden

Joining the Dnepr Cascade. An Envirotechnical Water-History of Chernobyl Nuclear Power Plant, 1950-1986

Chernobyl was built at the northern tip of the Dnepr Cascade – a vast industrialisation effort comprising six hydropower plants and their respective reservoirs. While it brought nuclear power to Ukraine, the conceptualisation of the station was based on experiences and knowledge gained during the construction of those six hydropower plants. Here the plant will be analysed as a product of previous industrialisation efforts and as a cornerstone of a wider energetical system encompassing not only Central Ukraine, but also Belarus. National boundaries, while important regarding political and planning decisions, are irrelevant for the massive impact the power plant had on the joint envirotechnical system of Ukraine, Belarus, and ultimately also Russia.

This article investigates how Chernobyl will consider how the envirotechnical system of the Lower Dnepr basin was renegotiated by adding a nuclear facility to the Dnepr Cascade. Through the realisation of the Kiev Hydropower Plant and thus the creation of its vast reservoir, the envirotechnical system of Kiev Province changed profoundly. Through the addition of the nuclear power plant, it was further developed into yet something new, combining established hydropower expertise with futuristic nuclear experimentation on the domestic RBMK and All-Union nuclear know-how. This led to a technocratic reshaping of a unique envirotechnical system that enabled the industrialisation of agriculture in southern Ukraine's steppe lands, industrial growth in major cities, and the creation of base load and steering capacities of the whole electricity grid.

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Paper 4:

Anna Storm, Linköping University, Sweden

Helen Rebecca Ingeborg Öhnfeldt, Linköping University, Sweden

Caring for wild animals at nuclear power plants: A local emotion management device?

How, why and to what effect is nuclear power plant staff caring for different kinds of wild animals, as part of their work, and within the nuclear facility restricted area? In this paper, we will trace a history of human-animal relations in the nuclear industry, with examples from Sweden, France, and the US. It will be a story of seals threatened by environmental toxins in the Baltic Sea which became part of a long-term rescue program at the Forsmark plant in Sweden, a story of wild boar living in the enclosed fenced area and fed on a daily basis at the Fessenheim plant in France, and a story of snakes, for a long time living on the grounds of the Zion plant in the US, and which were carefully moved to a new habitat as the plant went into decommissioning.

We tentatively argue that these efforts of caring for wild animals as part of the regular work at a nuclear power plant should be understood as a hitherto overlooked component of the nuclear industry's emotion management vis-à-vis local communities. Previous research has highlighted how the nuclear industry strived to establish a social contract with its hosting community similar to mono-industrial towns of other industrial branches, based on extensive economic support and entanglement with local concerns. Yet, living in a nuclear community comes with extra dimensions of risk, calling for extra efforts to build local

trust and, among them, we suggest animal caring programs to form a particular emotion management device.

1208-244 on Friday, 25.08.2023, 9:00-10:30

Unitobler – F 023

Imperial Ice: Colonialism, Nationalism, Gender, and the Emergence of Modern Glaciological Knowledge (1870-1930)

Organiser:

Tatyana Bakhmetyeva, University of Rochester, USA

Chair:

Katja Doose, University of Fribourg, Switzerland

Abstract:

Responding to the increasingly strong calls to look at glaciers as «contested and controversial objects of knowledge», ones that like most forms of landscape are historically and culturally conceived, this panel focuses on several case studies to explore how glaciers emerged as objects of scientific inquiry and (paradoxically) as romanticized and masculinized landscapes of the imagination. By looking at how glaciological knowledge was produced historically, how it gained scientific credibility, and what political forces shaped it, this panel discloses the colonial and gendered roots and ethos of that knowledge - and of the power that such knowledge constituted. With a few notable exceptions, environmental historians remain surprisingly inattentive to the physical (as opposed to the biological) sciences. This panel seeks to redress that imbalance by way of glaciology and the environmental implications of modern glaciological knowledge.

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Paper 1:

Christine Bichsel, University of Fribourg, Switzerland

That giant glacier. The discovery of Fedchenko Glacier by Russian Colonial Science in Turkestan

This paper focus on the framing of glaciers as objects of inquiry by Russian colonial science in Turkestan. Vasilii Fedorovich Oshanin (1845-1917) is credited with the scientific discovery of the Fedchenko Glacier, one of the largest glaciers outside the polar and circumpolar areas. He was the first Russian scientist to describe the existence of a «giant glacier» in the upper reaches of the Muk-Su-river during an expedition to the Pamir Mountains in 1878. Oshanin's report framed the path to the glacier as «ground, onto which no European has set his foot yet» in well-known colonial fashion. Moreover, by disbanding the local (Kara-)Kyrgyz name as lacking meaning, he felt obliged to rename the glacier. Explaining this as a gesture of deep respect, he renamed it after his friend and colleague Alexei Pavlovich Fedchenko to credit the latter's achievements in studying the geography and natural history of Central Asia. The name Fedchenko, Oshanin expressed his hopes, would stay with the glacier forever and bear testimony to the achievements of Russian scientists in the region. In this paper, I examine the colonial history of early Russian glacier science in the Turkestan on the case of the Fedchenko Glacier. To this aim, I draw on Oshanin's publications related to the expedition and their review by contemporary fellow scientists in Imperial Russian science outlets and newspapers.

Paper 2:

Tatyana Bakhmetyeva, University of Rochester, USA

Muscles for the Empire: Masculinity, Colonialism, and Soviet Glaciology in the Context of the 1928 Alai-Pamir Expedition

Focusing on the 1928 German-Soviet Alai-Pamir expedition to the Pamirs, the paper argues that from its inception Soviet glaciology was defined by gendered and colonial paradigms that reflected the ideological imperatives of Stalinist Russia. The close convergence between mountain climbing and alpine science, both framed as heroic endeavours, led to the explicitly masculinist ethos that characterized scientific work on the Fedchenko glacier. One of the strongest expressions of that ethos was the recognized centrality of a male fit and muscular body to the study of glaciers. In the Soviet case, this heroization of science and scientists was part of a larger gendering of Soviet society as masculine, of making the heroic male body an expression of Socialism - as well as a tool of building and a weapon of defending it. In that context, remote Pamir glaciers became defined as sites of new revolutionary battles while the local «uncivilized» people merged in the colonial Soviet imagination with untamed glaciers themselves.

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Paper 3:

Kirill Levinson, European Humanities University, Vilnius, Lithuania

Scholars, Mountaineers, Functionaries, and Locals in the 1928 Pamir-Alai Expedition

Drawing on diaries and memoirs of Soviet, German and Austrian participants of the joint Pamir-Alai expedition of 1928, the paper examines their views as to who and in what respect was (or was not) fit for what tasks posed by the journey in the unfriendly environment. Climbing up and down the cliffs, walking on the glacier, crossing stormy and chilly rivers, hunting, doing science, helping each other in many ways etc. were all actions that were not only performed but also observed and appraised. This appraisal, often discussed but perhaps even more often not even shared with one's fellow travellers, revealed a lot about the underlying cultural and social stereotypes, including racial as well as gender ones, as it included physical, moral, intellectual and technical aspects. The paper traces evidence of appraisal patterns that implied competition and/or cooperation as their basis and attempts to seek connections between them and the travellers' respective goals.

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Paper 4:

Stewart Weaver, University of Rochester, USA

Glaciers of Destiny: Richard Finsterwalder and the 1934 German Nanga Parbat Expedition

Six years after the 1928 German-Soviet Alai-Pamir expedition, the geodesist and cartographer Richard Finsterwalder joined the disastrous 1934 German expedition to Nanga Parbat, the great 8,126 meter massif at the western terminus of the main Himalayan axis. While the main body of the expedition attempted the first ascent of what soon became known as the Germans' «mountain of destiny», Finsterwalder, together with the geologist Peter Misch and the geographer Walter Raechl completed the first topographical survey of the entire massif and its several surrounding glaciers. Though little noticed in the wake of the disaster that left ten German climbers and Sherpas dead, Finsterwalder's survey was a notable landmark in the history of glacial cartography and, by extension, glacial science. Far more than the climbers attempting the summit, the three scientists came to grips with the complex environment of the Nanga Parbat massif and in effect claimed it for the scientific establishments of the Third Reich. Their survey also demanded much of them in the way of mountaineering and effectively erases the line between science and alpinism in the Himalayan context. Together with the others on this panel, this paper takes up an important episode in the making of glaciological knowledge and argues for the significance of glacial exploration to the environmental history of the Himalaya.

1209-460 on Friday, 25.08.2023, 9:00-10:30

Unitobler – F-105

Mountains of nutrients, plains of soy: Global connections between the hotspots and shadow places of the soy web (1/3) (H)

Organiser:

Floor Haalboom, Erasmus University Rotterdam Medical Center, The Netherlands

Chair:

Floor Haalboom, Erasmus University Rotterdam Medical Center, The Netherlands

Abstract:

Historical changes in the soy web made major shifts in human diets and industrial livestock farming possible. These shifts were accompanied by entangled social and environmental impacts in both the global south and global north, which were invisible to many. Such places invisibly affected by a global web of commodities have been called «shadow places» by the Australian ecofeminist philosopher Val Plumwood. In three parts, «Mountains of nutrients, plains of soy» aims to bring together recent historical transnational work on soy, and to debate how such histories can make connections between the global north and global south visible. In the first two parts, scholars involved in three different Europe-based research projects on the history of soy present their work: historians working on «Soy Change» (historical ERC project based in Austria), «Soy Stories» (transdisciplinary Dutch Research Council project based in the Netherlands) and «What does your meat eat?» (historical Dutch Research Council project based in the Netherlands). In a Roundtable session the panellists debate the question how to make connections between the global north and the global south central to such Europe-based research. What do the different projects and approaches make visible and invisible about places related to the global soy web? And what does this bring present-day debate about global injustices and environmental destruction related to soy?

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Paper 1:

Ernst Langthaler, Johannes Kepler University Linz, Austria

Suppliers, brokers, customers: Soy's global trade network since the 1950s

This paper adopts a commodity-focused network approach to international trade as a key feature of agro-food globalisation in the era of Great Acceleration. It conceptualises agro-food globalisation as succession of food regimes, i.e. bundles of inter- and transnational power relations connecting food production, distribution and consumption. In addition to statistical analyses of aggregate data on exports and imports, the study includes network analysis for better capturing the connective character of globalisation. The international network of agricultural trade is assessed through the lens of soy, which emerged as a major commodity from the mid-twentieth century onwards. Besides numerous country-case studies, global accounts of soy as a commodity are still rare. The paper goes beyond conventional analyses of country-level export and import figures by adopting a network perspective on international trade of soybeans and their products (soy oil and soy cake). It aims at answering the following questions: first, how and why global soy trade unfolded in temporal and spatial terms; second, how and why international links and (sub-)national nodes composed the global soy trade network (with emphasis on Brazil as a supplier, the Netherlands as a broker and Austria as a customer); third, how and why driving forces and ruling actors at multiple levels shaped soy's trade network and its socio-natural outcomes. The results add complexity to simplistic notions of agricultural trade in the Great Acceleration through temporal and spatial differentiation. The paper is part of the FWF research project Soy and Agro-Food Change (SoyChange).

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Paper 2:

Nathaly Yumi da Silva, Universidade Federal da Fronteira Sul, Brazil

Claiton da Silva, Universidade Federal da Fronteira Sul, Brazil

Brazilian Soy Stories: Connected sustainability histories & futures

Since the 1970s, the acceleration of Brazilian soy monoculture sparked worldwide concern for massive-scale deforestation, land grabbing, child labour, criminality, etc.. At the same time, soy consumption elsewhere in the world, e.g. in the Netherlands, resulted in soy-based intensive animal farming, giving rise to a 4-decades-long national nitrogen crisis (with ensuing ecosystem threats), large-scale animal suffering, public health hazards, greenhouse gas emissions etc.. This paper will present the initial results of a 4-year project named SOY STORIES that seeks to explore how plural-and-connected historiography can support addressing these present-day transnationally interconnected sustainability challenges in a more inclusive manner. In particular, the paper will discuss 1) which and whose sustainability histories can be identified in Brazil, and how these histories differ from each other; 2) how these histories engage with or ignore overseas (predominantly Dutch) sustainability histories; and 3) the implications of the answer to the foregoing subquestions for which and whose sustainability futures, for which regions, these histories articulated, and who, from where, was (not) made responsible for realizing these futures.

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Paper 3:

Evelien de Hoop, Vrije Universiteit Amsterdam, The Netherlands (V)

Caroline Kreysel, Vrije Universiteit Amsterdam, The Netherlands

Dutch Soy Stories: Connected sustainability histories & futures

Since the 1970s, soy consumption in the Netherlands resulted in soy-based intensive animal farming, giving rise to a 4-decades-long national nitrogen crisis (with ensuing ecosystem threats), large-scale animal suffering, public health hazards, greenhouse gas emissions etc.. At the same time, elsewhere in the world, e.g. in Brazil, the acceleration of soy monoculture sparked worldwide concern for massive-scale deforestation, land grabbing, child labour, criminality, etc.. This paper will present the initial results of a 4-year project named SOY STORIES that seeks to explore how plural-and-connected historiography can support addressing these present-day transnationally interconnected sustainability challenges in a more inclusive manner. In particular, the paper will discuss 1) which and whose sustainability histories can be identified in the Netherlands, and how these histories differ from each other; 2) how these histories engage with or ignore overseas (predominantly Brazilian) sustainability histories; and 3) the implications of the answer to the foregoing subquestions for which and whose sustainability futures, for which regions, these histories articulated, and who, from where, was (not) made responsible for realizing these futures.

1210-C10 on Friday, 25.08.2023, 9:00-10:30

Unitobler – F-113

Contested conservation in mountain areas (H)

Organiser:

ESEH Programme Committee

Chair:

Kristian Martinus Mennen, Utrecht University, The Netherlands

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Paper 1:

Zoe Lauri, European University Institute, Florence, Italy

Alpine Gardens and Unified Italy: Preserving Nature to Legitimise the Nation (1880s-1920s)

This paper results from an investigation on the cultures and politics of nature that characterised the Italian context after the state unification in 1861. In particular, I will focus on practices and debates related to the establishment of alpine gardens started at the end of the 1880s in Northern Italy. The first of these gardens, the «Chanoisia», was founded in 1897 at the pass of Piccolo San Bernardo, in the Alps between Savoy and the Aosta Valley. The project was primarily promoted by the Turinese section of the Italian Alpine Club, but also involved other associations and independent scientists, mainly botanists. Its creation was motivated by three main objectives, namely the protection and preservation of endangered botanical species, the support of scientific research, and the «education» of mountaineers, citizens, and tourists. Other similar projects followed, modelled on this first experience.

This case study is significant because it reveals how, during the process of nation-building that followed the political unification of the Italian peninsula, there was room for different «cultures of nature»: a dominant one – which was oriented towards industrial progress and intensive resource exploitation – and a minor conservationist one – which marked the early stages of environmentalist approaches that took a long time to gain political dignity in Italy. I argue that these two cultures of nature share a patriotic and nationalist background in which Italian nature was used as an instrument to legitimise the Italian nation both domestically and internationally.

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Paper 2:

Alexandre Elsig, EPFL Lausanne, Switzerland

The Clean Air of the Mountain? Industry, Tourism, and Nature Conservation in the French and Swiss Alps in the 20th century

«Nature» was a heavy constraint to deal with for the Alpine populations: flooding, landslides, avalanches, but also the harshness of the climate, and declivity of the terrain. However, when these territories entered the Industrial Era at the end of the 19th century, «nature» also became an economic resource: the water coming from the glaciers - the «white coal» - could be channelled and turbinated to produce electricity and run large factories in the plains, while the clean mountain air and the «sublime» landscapes attracted wealthy and/or sick tourists to high resorts and sanatoria.

The historiography has not paid much attention to the cross development of these two phenomena and to the possible conflict of interest between, on the one hand, tourism promoters that praised the purity of the Alps and, on the other hand, some territories that were more and more marked by industrial influence, its imposing infrastructures and its heavy fumes.

This paper proposes to study this relationship in Valais (Switzerland) and in Maurienne (France), by reflecting also on the role played by the wildlife conservationists and then by the ecologists facing the touristic and industrial discourses of Alpine modernization.

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Paper 3:

Alexander Boyd, Northumbria University, Newcastle, United Kingdom (V)

Cape Wrath – Mountains, munitions and military conservation in Northern Scotland.

For over a century Scotland has been utilised by the forces of the British Military for the training of her armed forces. One such site is the Cape Wrath Training Centre, in the far Northwest of the country.

The only place in Europe in which NATO's largest conventional weapons can be tested by air, sea and land, Cape Wrath is cut off from the Scottish mainland by a mountain range and strait of water. This has both helped protect the site from development but also seen it suffer from extensive ecological damage by the military. One site in particular, the mountain Sgribhis-bheinn (The rough hill) has formed the central target for much of this activity.

This paper will examine the difficult ongoing role played by the site, a place which has seen heavy media scrutiny due to the activities of the Ministry of Defence. It will pay particular emphasis to the role played by military greenwashing, or so-called «khaki-conservation», as the army attempt to re-take the narrative. Through the examination of a number of sources from archaeologists, conservationists, protesters, and the Ministry of Defence's own publication «Sanctuary», the tensions between the requirements of the military and its impact on the environment are scrutinised.

Building on the pioneering work of Marianna Dudley and her study «An Environmental History of the UK Defence Estate 1945 – Present», this article will be one of the first to examine the role of HM Armed forces on the landscape North of the Border.

1211-339 on Friday, 25.08.2023, 9:00-10:30

Unitobler – F-121

Unlocking pathways: singing and sensing the sociality of tracks and trails (H)

Different World Session: Workshop

Organiser:

Abbi Flint, Newcastle University, United Kingdom

Chairs:

Clare Hickman, Newcastle University, United Kingdom

Abbi Flint, Newcastle University, United Kingdom

Presenters:

Clare Hickman, Newcastle University, United Kingdom

Abbi Flint, Newcastle University, United Kingdom

Sarah Bell, University of Exeter, United Kingdom (V)

Abstract:

This interactive workshop will use participatory activities and share multi-media provocations to explore entangled sensory and social engagements with landscape, through two UK Arts and Humanities Research Council funded projects:

«In All Our Footsteps: Tracking, Mapping and Experiencing Rights of Way in Post-War Britain» explores the use and experience of rights of way (footpaths, bridleways and byways), through historical, health and policy perspectives.

«Unlocking landscapes: History, Culture and Sensory Diversity in Landscape Use and Decision Making» is a network exploring the potential for sensory history scholarship to disrupt and expand the types of stories shared about landscape; moving beyond dominant forms of landscape encounter and enabling a greater diversity of people to «be» and belong in historic landscapes.

Sharing insights from both projects, we will use cross-disciplinary approaches from history, geography and creative methodologies to interrogate and de-centre the dominance of individual and visual perspectives of pathways and landscapes. This in turn will open-up possibilities for more inclusive understandings of

people-place relationships. We will invite participants to respond to multi-media provocations, to explore how socialities (with the human and more-than-human) and multi-sensory engagements (haptic, sonic, olfactory, gustatory and visual) shape histories and experiences. In particular we will explore the role of songs and singing in these experiences. Creative approaches, such as poetry, can be effective means of researching and writing these multi-sensory, social engagements and histories with landscapes. We will share original research poems and invite participants to co-create words for a new, inclusive and sensory-engaged, «tramping» song.

1212-C16 on Friday, 25.08.2023, 9:00-10:30

Unitobler – F-122

Plants and cultivation

Organiser:

ESEH Programme Committee

Chair:

Lucas Mueller, University of Geneva, Switzerland

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Paper 1:

Moritz von Brescius, University of Bern, Switzerland

The Limits of Growth: The Verticalities of Rubber Plantations in British India

This paper provides a new understanding of the nineteenth-century plantation revolution for the industrial commodity of rubber. It explores the establishment and initial decades of operations of the first large rubber plantation in the world, established on the foothills of the Himalayas in Assam, northeast-India, in 1873 as an experimental field. It asks about the numerous trials with elevation and mountain and plain climates that accompanied the fraught transformation of the Asian *Ficus elastica* rubber species from a tree tapped in the wild to a systematic plantation crop. While existing scholarship on colonial rubber estates has so far focussed on their horizontal expansion (with all the environmental destruction and problems of soil erosions, etc., this entailed), this paper, in contrast, will analyse vertical factors of rubber production and the interplay of various spatial layers underneath and above the ground for the running of systematic rubber fields: the hydraulic effects of geological structures underneath the plantation; the role played by the myriad root systems rubber trees planted in straight lines developed that often undermined the logics of scientific experiments; the challenge with surface shrubs, pests and diseases; finally, the impact of rain, cloud, sunshine and winds for planting and labour processes in ways that often challenged colonial mastery of the engineered tropical environments. As a series of failed and costly experiments with *Ficus elastica* propagation on the slopes of the Himalayas and in the plains of Bengal showed, systematic cultivation schemes showed contingent consequences often brought about by a capricious nature.

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Paper 2:

Oleksandr Polianichev, Södertörn University, Sweden

Tea and Bamboo for the Russian Empire: The Introduction of Subtropical Plants to the South Caucasus

At the turn of the 20th century, the Russian Empire embarked on one of its most radical environmental projects that ultimately has drastically changed ecologies and economies of the region that was chosen for its implementation. It set out to convert large swaths of the Black Sea coast in the South Caucasus into

areas of cultivation of subtropical and tropical plants. This project was born out of the belief that the unique combination of natural conditions – the Caucasus Mountains and the Black Sea surface – would function as a natural thermoregulator enabling the production of «exotic» commodities for the tsarist domestic consumption.

In my paper, I will focus on the history of the Chakva Subtropical estate in the vicinity of Batum/Batumi, which was a corollary of imperial efforts to introduce useful plants from the colonial world. Brought by a special governmental expedition from India, China, Japan, and Ceylon in the 1890s, seeds and seedlings of tea, bamboo, oranges, and many other evergreen plants successfully took root under the protection of the mountainous barrier that separated them from northern and eastern air masses. This success was a matter of an all-imperial pride, as it allowed Tsarist Russia to reimagine the region as its own «subtropics» and fashion itself as an empire embracing all climate zones. This was also a colonial claim to a «green» civilizing mission: the Russian society presented itself as a better steward of the natural resources than the local population that ostensibly did not understand their real value.

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Paper 3:

Elizabeth Rachel Williams, University of Massachusetts, Lowell, USA

From Arid Mountains to Irrigated Plains: Cultivating the Desert's Edge in the Eastern Mediterranean, 1850-1940

This paper examines how the perceived potential of the lands that lay along the desert's edge in the eastern Mediterranean drove policies of agricultural expansion by successive administrations amid the transition from Ottoman to French mandate rule. Marginal for sustained cultivation if dependent on the region's erratic rainfall, they were nonetheless targeted by these governments as central to expanding and intensifying their extraction from the region. One draw was the existence of centuries-old channels, known as qanats, that were made possible by a unique geography of arid mountain ranges surrounding fertile plains. Once restored, the channels could funnel groundwater into the plains for irrigation purposes. For Ottoman officials and Sultan Abdülhamid II (r. 1876-1909), these lands represented an opportunity to substantially increase revenues in the face of mounting debt and European economic intervention. During and after WWI, visions of «developing» these lands through experiments in private property creation bolstered justifications for French mandate rule. Over the course of the mandate, these projects would not pan out as planned. Using Ottoman, Arabic, and French sources, this paper argues that the uncertain allure of these lands drove projects for the region's «development» that spanned the transition from Ottoman to mandate rule, but irrigation from arid mountain slopes could only go so far. Much of the surrounding areas continued to rely on uncertain rainfall. The results produced at the intersection of these environmental features and the flows of capital invested in them were often far from those anticipated.

10:30-11:15

Mensa/Entrance Area UniS & Unitobler

Coffee Break

Poster Session on Friday, 25.08.2023, 10:30-11:15

Mensa/Hallway UniS

Poster Session III

Poster 11:

Giulia Beltrametti, University of Primorska, Slovenia

Interdisciplinary research and environmental history. A two-year EU-funded project: methods, results, perspectives

The poster intends to display the results of a two-year Horizon2020 funded research project. Hosted at The University of Primorska, Slovenia, the OCHER project investigated, with a multidisciplinary approach, the relation between specific historical forms of lands and resources collective management and the current environmental and landscape value of those areas, inquiring the issue of accessibility rights to natural resources. The research addressed different kinds of «institutions for collective action», at different scales and with a very extended time frame. In rural areas, where conservation and sustainable use of the environment were largely centred on «people working with nature», the minimal structures of organisation were mainly households. A combined historical, anthropological and juridical approach was thus needed for a better understanding of the long-term effects of resource use in the environment, for a deeper reflection on the specificity of (collective) subjects and on the mechanisms of (collective) legal actions and institutions, analysed in particular in the light of important political and institutional changes (the end of socialist regimes, for example). The poster will trace the stages of the research, from the original idea to the sources used, the dialogue with local stakeholders, the integration with other research methods (particularly anthropology, with extensive fieldwork, interviews, and participation in community gatherings), and to future research outlooks. The aim is to offer a contribution to the reflection on new perspectives for environmental history, trying to understand the historical forms of a relation of interdependence in social and ecological systems.

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Poster 12:

Daniel McDermott, University of Rochester, USA

From Acadia to the Harz: Subalpine Restoration as a Potential Turning Point in Nature Conservation

From the violence wielded against native peoples, immigrants, and people of colour in the name of protecting «pristine» nature in U.S. national parks to the evolutionary Eden façade erected by neo-colonial organizations in the Galapagos Islands, nature conservation, including the science it operates off, has long been a vehicle for class, racial, and geopolitical tensions since the field's emergence in the late nineteenth century. These factors then influence one's relationship with nature.

My presentation argues, in the face of the global climate crisis, nature conservation is at a turning point. By bringing attention to and comparing the subalpine restoration projects on Cadillac Mountain in Acadia National Park (Maine, USA) and the Brocken in the Harz National Park (central Germany), I argue these conservation projects, though niche and specialized, reflect a turn in nature conservation in which the field's practices are beginning take and adopt proactive measures in order to prepare for future climatic changes. This contrasts with previous practices which sought to preserve nature in a static state or return it to an idealized period. Additionally, I explore how the location of both projects in national parks influence visitors' understanding of nature through outreach and educational programming. I hope to show how these ongoing projects can chart the future for nature conservation, in which the field can shed its problematic background and more justly mitigate the effects of climate change.

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Poster 13:

Richard Michael Warren, University of Bern, Switzerland

Monsoon failure, famine in India and the volcanic eruptions of 1831 and 1835

AD 1831 and 1835. Two massive eruptions send vast plumes of sulphur into the atmosphere, forming a layer of aerosols that reaches around the globe. In the following years, terrible famines visit vast tracts of India, leading to reported deaths of over a million people. Just a coincidence? Perhaps. Using the latest climate reconstructions, we can attempt to identify the contribution of volcanic activity to the droughts and famines in India following the 1831 and 1835 eruptions. This study summarises the links between eruptions and the Indian monsoon and attempts to reconstruct the climate impact of the 1831 and 1835 eruptions. It then charts the progress of the subsequent famines through historical sources - how the populace and the authorities reacted and how this produced feedbacks that worsened an already dire climatological situation. It concludes with a discussion of the other factors contributing to the Indian famines ranging from the ideals of free market economics, the failings of British colonialism and the consequences of a joint-stock company given the power to decide the fate of an entire subcontinent.

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Poster 14:

Axel Cerón González, Ondokuz Mayıs University, Turkey (V)

Soil as historical object: Body, space, and thing

Soils are active entities in time and space on the Earth's surface. It means, soils are four-dimensional systems with the ability to record the matter and energy fluxes involved in their constitution. Particularly, this soil characteristic is known as soil memory and is analysed to understand the environmental changes recorded in the soil body during decade and millennia ranges.

Furthermore, soils are a continuum. In other words, soils are space, and they can be named, classified, and mapped for their use and management. The category of soils as space and their geographical distribution have an impact on social organization. In this way, societies have adapted or modified soils for their use as food providers, material sources, construction substrates, etcetera.

Nevertheless, the soil study and recognition are recent activities: the soil as a thing to analyse. Currently, the state of soils is of interest in several global agendas: including the Food and Agriculture Organization, the International Union of Soil Sciences, and the US Department of Agriculture, which guide the scientific validity of soil knowledge as a political category at the corporative level.

So far, soil can be an object of history based on its capacity to memorize the past in its body, its impact on social organization in the space, and its potential to be analysed as a thing in academia, legal institutions, and corporative administrations, among others.

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Poster 15:

Bruno Raguž, University of Zagreb and University of Applied Sciences Baltazar Zaprešić, Croatia (V)

The importance of mountains and wind in choosing a location for the construction of an industry – the example of the Bakar coking plant

Bakar is a small town in the northern Adriatic area which, despite its long history, is mostly known to the public for the pollution caused by several large industrial plants. One of them was the coking plant, which was located right next to the coast and which during the 70s and 80s of the last century processed coal for the ironworks in Sisak. The operation of that plant was often the target of criticism from the residents of Bakar, but also from the local authorities, and the question of locating such an industry right next to the seashore was often raised. However, it is poorly known that the location in the Velebit canal was one of the fundamental reasons for the construction of the coking plant. This poster therefore wants to present the

importance of the Velebit mountain as well as the winds, especially the "bure", in choosing a location for the construction of a coking plant. Also, the poster will question the effectiveness of such an approach in preventing of pollution. Finally, the poster will briefly present the impact of the mountain and the wind on the region after the closure of the coking plant in 1994.

1300 on Friday, 25.08.2023, 11:15-12:45

UniS – S 003 | digital broadcast: Unitobler – F 021, F 022

Keynote Lecture: Tenacious: An alternative history of dogs from across the ocean

Keynote Speaker:

Claudia Leal, Universidad de los Andes, Colombia

Introduction:

Wilko Graf von Hardenberg, Humboldt University Berlin, Germany

About Claudia Leal:

Claudia Leal was born and raised at 2.600 meters in Bogotá, Colombia, where she is full professor at the Department of History and Geography at Universidad de los Andes; she has been a fellow at the Rachel Carson Center for Environment and Society and is currently a member of the global faculty at the University of Cologne in Germany. She doubles as a geographer and a historian and uses an environmental lens to explore old historical questions, such as state formation and the building of freedom in the aftermath of slavery. Her research focuses on national parks, forests, water management, and animals mostly in her home country, while also contributing to build a general environmental history of Latin America.

Abstract:

Spaniards who arrived in the Americas used the word gozque to scorn native dogs, who reminded them of similar ones from home whose insignificance made them unfit to be designated with the real name. These and other creatures who have been called so—and tolerated, cherished, and persecuted—have been part of human lives and environments across centuries. The tenacity of these underdogs has made them historical actors who can shed light on the conundrums of sharing a planet in peril.

12:45-14:15

Mensa UniS & Unitobler

Lunch

1301 on Friday, 25.08.2023, 13:30-14:00

UniS – S 003

ESEH Prizes Ceremony

City Trip on Friday, 25.08.2023, 14:00-16:00

City Trip E

Bern in the Late Middle Ages

Guide:

Nicole Nyffenegger-Staub, University of Bern, Switzerland

Discover the world-famous Zytglogge (clock tower) and the late Gothic Bern Minster, enjoy a spectacular view from the Minster terrace down to the Matte quarter and the Aare river, and end up at the 15th century town hall.

1400-344 on Friday, 25.08.2023, 14:15-15:45

UniS – S 003

Locating Women in Climate Histories: Past, Present, and Praxis (H)

Organiser:

Emma Moesswilde, Georgetown University, Washington DC, USA

Chair:

XXX

Presenters of the Roundtable

Yuan Julian Chen, Duke University, Durham NC, USA

Georgina Endfield, University of Liverpool, United Kingdom

Harriet Mercer, University of Cambridge, United Kingdom (V)

Emma Moesswilde, Georgetown University, Washington DC, USA

Abstract:

This roundtable considers the multidimensional roles of women in the interconnected histories of climate and society. Studies of past climate changes and their relationship to human history have garnered increased attention over the past several decades, especially within the context of the current climate crisis. Many scholars across disciplines maintain that such studies are essential not only to understand the past, but also to comprehend and protect the present and future. Experts in climate policy and justice have found that women and other marginalized groups are disproportionately impacted by the effects of climate change. In the rapidly growing corpus of publications investigating past climates, though, studies focusing on the role of women in climate history are relatively few. This roundtable brings together leading experts and emerging voices from history, geography, and climate science across multiple regions and time periods to discuss why and how to consider women's lives and perspectives as essential to the study of past climates. It aims to enumerate best practices for integrating such analyses into more climate scholarship. As part of the conversation, participants will consider the influence of woman scholars on the development of climate history and its future and discuss the structural biases and barriers which have limited women as both historical protagonists and practitioners of climate history. Featured experts include Yuan Chen, Georgina Endfield, Harriet Mercer, and Emma Moesswilde.

1401-229 on Friday, 25.08.2023, 9:00-10:30

UniS – A 022

On the history of nature conservation and rewilding in Switzerland and Europe in general

Organiser:

Stefanie Gubler, Swiss Academy of Sciences (SCNAT) Bern, Switzerland

Chairs:

Stefanie Gubler, Swiss Academy of Sciences (SCNAT) Bern, Switzerland

Patrick Kupper, University of Innsbruck, Austria

Abstract:

At the beginning of the 20th century, strong nature conservation movements have taken place in Switzerland, leading to the establishment of the Swiss National Park in the southeast of the country in 1914, the first of its kind in Central Europe. The Swiss National Park has been under strict conservation and restricted access regulations since then and was subject to high expectations. In particular it was expected that «all previous changes of the original state by the centuries-long influences of the hunters, fishermen, foresters, agrarians, shepherds and haymen, by fertilizer, soil break-up, mowing and pasture [would] disappear with time and [that] the old original biocenosis will re-establish itself; a great «rewilding experiment» will be carried out there» (Schröter 1920, p. 5).

From its beginning, the Swiss National Park has been an outdoor laboratory for monitoring and research of natural processes. Therefore today, over 100 years later and thanks to a wealth of research projects performed in the park, we find ourselves in the luxurious position to analyse and evaluate this «rewilding experiment» and to derive conclusions related to the great challenges faced by current and future generations such as climate change and biodiversity loss. In this session, we will shed light on the history of nature conservation in Switzerland and Europe in general, present two rewilding experiments in Europe, and illustrate the value of long-term monitoring to document and learn from such efforts. To finalize the session, we will discuss lessons-learnt that may help to find pathways to solutions to the above-mentioned global challenges.

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Paper 1:

Valeria Braun, Austrian Academy of Sciences, Austria

Andreas Haller, Austrian Academy of Sciences, Austria

Annemarie Polderman, Austrian Academy of Sciences, Austria

Timelines of tension: trajectories of nature park creation in the Tyrolian Alps

This presentation presents the history of the creation of the five Tyrolean nature parks. In 2001, the «Hochgebirgs-Naturpark und Zillertal Alpen» was the first nature park designated in Tyrol. Followed by the Lechtal which became a nature park in 2004 after almost 30 years of discussions to protect the river Lech. In 1981, the federal government approved the quiet area Ötztaler Alpen which was to form the basis for the two nature parks Ötztal and Kaunergrat which were both designated independently in 2006. A controversy of different actors before the foundation of the nature parks were the demands for the use for hydropower, as skiing areas or as traffic routes. Local people founded associations in order to obtain a protected area designation. NGOs such as the Alpine Club and the WWF supported the initiatives. Some initiatives for the establishment came from the federal government of Tyrol but also from mayors in the regions. An exception is the Karwendel Nature Park, which was already designated as a protected area («Banngebiet») in 1928 and, after a turbulent history, was designated as a nature park in 2009. The

changes that the nature parks have made in the course of their time as protected areas will be exemplified by the Hochgebirgs-Naturpark und Zillertal Alpen.

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Paper 2:

Anna-Katharina Wöbse, Justus Liebig University Gießen, Germany

Follow the tracks! Rewilding Europe in the 20th century

The Swiss National Park served as an early role model for transplanting the American concept of nature conservation to Europe. As it was clear, that the National Park' environment had been thoroughly transformed by human action in former times, re-establishing natural processes was part of the plan. The founders and scientists of the National Park would not wait, however, for the most iconic animals to return. Soon, some ibexes were carried up to the mountaintops to actively end a phase of extinction. Ever since, prominent, and preferably charismatic animals have served as transmitters and messengers of the good news that wilderness can actually be restored – by the highly artificial process of reintroducing species.

This contribution looks at the ambiguous history of animal agency in European rewilding projects in the run of the 20th century. Most of the rewilding schemes, it argues, do not so much serve to reinstall ecological relations but rather to illustrate certain ideas of wilderness. While animals played a decisive role in communicating environmental stories, they never really behaved accordingly to those narratives. Constantly they challenged human borders and measures of control. Following the animals' tracks leading in and out of reserves helps to understand the European dichotomies of wilderness and non-wilderness.

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Paper 3:

Tamara Estermann, Swiss National Park, Switzerland

Ruedi Haller, Swiss National Park, Switzerland

Two Glances at the Landscape: Rephotography in the Swiss National Park

The «rewilding experiment» of the Swiss National Park, which started with its foundation in 1914, has also left its mark on the landscape. In order to monitor and document landscape changes, historical terrestrial photographs were identified from different archives of the founders, professional photographers and collaborators.

A representative selection of these collections was revisited in the last 15 years. These landscape elements were rephotographed from identical location to obtain comparable image pairs at different time periods. The visual and descriptive research method of rephotography is currently used as a supplementary approach to various quantitative remote sensing methods.

We precisely matched the historical to the recent photos using image processing tools to enable direct comparisons, e.g. by sliders. This approach allows us to expand the time span in history back to when systematic surveying and remote sensing did not yet exist or existed only patchily in terms of time and space.

The selective terrestrial, sometimes random, mostly large-scale, and historical perspective of rephotography is particularly well suited to qualitatively describe the evolution of specific landscape elements such as (rock) glaciers, rockfalls, reforestation or power plant construction. It also demonstrates the limits of rewilding and puts it into a wider historical context. Rephotography thus makes an important contribution to reviewing and securing the successive rewilding process in the Swiss National Park.

1402-221 on Friday, 25.08.2023, 14:15-15:45

UniS – A-122

Dynamic environments, human population and economy: History of grasslands and mosaic landscapes in highlands and surrounding lowlands

Organiser:

Žiga Zwitter, University of Ljubljana, Slovenia

Chair:

Arnoud Jensen, University of Antwerp, Belgium

Abstract:

The panel deals with the impacts of history of weather and climate, human population and economy on the uses of highland grasslands and mosaic landscapes. The unifying element in the three presentations is the effort to understand the management of highland resources as part of a general economy and ecology that included interactions with the surrounding lowlands and the impacts of significant climate change. This interdisciplinary panel employs a wide array of sources and methods, including written documents (environmental and socioeconomic history), archaeozoological finds, and palynology. All three presentations focus on areas and periods with a climate that would be perceived as harsh from the present perspective: the north-western Dinaric Karst in the Late Pleistocene, the south-eastern Alps and the Jeseníky Mts (Sudetes), both in the Early Modern Period. Even though extensive animal husbandry can be assumed to have existed in highlands in all study areas from the late prehistoric period onward, there were significant differences in the intensity of use due to the interplay of human and environmental factors. Individual presentations address how such differences can be explained for instance by interconnections between highlands and lowlands. Concerning inclusivity and diversity, the presenters and chair (who is a doctoral candidate) come from different disciplines, from three different ESEH regions, and from four institutions.

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Paper 1:

Borut Toškan, Research Centre of the Slovenian Academy of Sciences and Arts, Slovenia

Archaeozoologically inferred paleoenvironmental oscillations on the Karst Plateau (SW Slovenia and NE Italy) in Late Pleistocene and Holocene

The potential of archaeozoology to draw inferences about the paleoclimate/paleoenvironment is well known. Of many taxonomic groups, mammals are among the most interesting when focusing on Quaternary contexts in which they are typically well represented. Traditionally, both individual indicator species occurrence data and community-level analyses have been used for this purpose. The talk will present the advantages and pitfalls of paleoenvironmental studies based on mammalian remains. Data from several late Pleistocene and Holocene faunas from the Kras Plateau and its immediate surroundings will then be presented to shed light on the paleoenvironmental fluctuations in this area during the last 100,000 years. Considering the paucity of indicator species between the often relatively generalist large mammals and especially the rather rich assemblages of small mammal remains (Eulipotyphla, Chiroptera, Rodentia), a discrepancy between the Pleistocene faunas of the study area and those north of the Alps was noted. This discrepancy can be explained by the fact that the Balkans functioned as a glacial refugium. The global melioration of the climate at the transition from the Pleistocene to the Holocene led to the spread of forests. However, with the increase of anthropogenic interventions from the Iron Age onwards, open areas expanded considerably. This triggered the local extinction of several mammal species, as clearly shown by the rapid faunistic change over the last 5000 years.

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Paper 2:

Péter Szabó, Czech Academy of Sciences, Czech Republic

«We have just launched a completely new and unique venture»: Successes and failures to utilize marginal mountain grasslands in northern Moravia since the Middle Ages

The Sudetes are typical middle mountains in Central Europe. However, they feature some characteristics of high mountains, such as a natural upper timber line. Treeless areas on summits resemble their counterparts in the Alps and the Carpathians, but their use seems to have been much less constant and systematic. The aim of this presentation is to establish the socio-ecological and climatic circumstances that led to repeated, more-or-less successful efforts at utilizing these uplands as pasture and hay meadows. Overall, mountain grasslands were economically quite insignificant, and their use came to the forefront in times of hardship or when more entrepreneurial leaders took over individual estates. While hay cutting was relatively common and more fitting for the local, lowland-based economy, efforts at transhumance usually came up against local socio-ecologies that were little prepared or suitable for this practice. The main conclusion of the presentation is that mountain grassland use was largely determined by processes in the lowlands within the limits set by the ecological conditions in the uplands.

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Paper 3:

Žiga Zwitter, University of Ljubljana, Slovenia

Towards a complex understanding of grassland agroecosystems under dynamic environmental and human conditions in the modern period: selected topic from mountains and plains of the Eastern Alps

The talk starts with annual variability in grassland pollen and nectar resources reflected in beehive tithe in hills and a nearby plain. In the modern period, grasslands were more significant pollen and nectar source than nowadays. Analysed data on beehive tithe focus on the Maunder Minimum. Economic impacts of Little Ice Age peaks in grasslands were locally to regionally specific and complex: they range from rotten hay as one extreme to long-term elimination of cockchafer hazard as the other. During environmental-variability-triggered crises of the farm economy, several poorly productive non-manured meadows often became highly economically relevant as hay harvest there was more resilient than in more productive grasslands. In times of grassland abandonment, not only afforestation but also earlier stages of ecological succession mattered; in many cases, they caused severe challenges for farming reintroduction. Clearance following dwarf mountain pine overgrowth in mountain karst likely caused soil erosion due to the adaptability of this species exceeding the limits of traditional ecological knowledge. For a couple of reasons, temporary grassland abandonment was not only a matter of lesser need for that parcel. The type of grasslands that frequently underwent ecological succession were swidden pastures. Literature often claims stereotypically that they typically provided low-quality fodder.

While there were many similarities in the use of grasslands in regions as distant as Central Europe, the Carpathians and Sweden, interpretation of ecological impacts of changes triggered by the interplay of human and environmental dynamics requires caution and knowledge of local and regional specifics.

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Paper 4:

Susanne Riedel, Agroscope, Switzerland

Driving forces of biodiversity change in historical grassland plots

Over the last century, biodiversity in grasslands has declined dramatically across taxa, ecosystems and regions. In order to understand patterns and processes of anthropogenic biodiversity change, long-term monitoring datasets are of high importance, yet often lacking. Within the Square Foot Project we aim to

resurvey a unique historical dataset and combine it with highly resolved historical and current environmental and land use data. Between 1883 and 1931, three botanists have sampled around 600 vegetation plots of various grassland types across Switzerland with a standardised and precise method, determining all vascular plant species on areas of 0.09 m² (squarefoot) and measuring the above-ground dry weight of each species.

We started relocating the historical plots according to the available information and drew a stratified randomised sample of around 70 historical plots, following an elevational and a hydrological gradient. Within the assigned perimeter we recorded the plant species composition, and the species cover on randomly positioned square foot plots. Additionally, we searched for grassland patches in the surrounding that best resembled the historical vegetation type in order to estimate the recent potential within a vegetation type. Mixed soil samples of topsoil and above ground biomass helped us to assess N vs. P limitation of the sites.

In order to understand land management histories, identify the main drivers of change and to quantify their impacts and their interactions on biodiversity, we studied the temporal evolution of agricultural management, which will allow detailed modelling to disentangle causal pathways of biodiversity change.

1403-296 on Friday, 25.08.2023, 14:15-15:45

UniS – A-126

The Ecological Body in a Toxic World. Environment and Health in the late Soviet Union, 1960s–1990s

Organiser:

Marc Elie, CNRS Centre National de la Recherche Scientifique, CERCEC, France

Chairs:

Klaus Gestwa, University of Tübingen, Germany

Katja Doose, University of Fribourg, Switzerland

Abstract:

How has environmental destruction locked our societies into «inescapable ecologies»(Linda Nash)? What experiences of contamination do bodies have in toxic environments? To what political mobilizations do these experiences lead? To answer these questions, the panel examines the socio-ecological crisis that engulfed the inhabitants of the Soviet Union at the time when the country entered the fatal downward spiral that lead to its collapse in 1991. The three panellists assess this predicament on the basis of new documents from the archives of post-Soviet countries. They look at personal histories of illness in degraded environments, at social mobilizations against pollution in cities and at expert controversies about pesticide contamination.

They handle a key period of massive, intertwined crises that peaked during Mikhail Gorbachev's Perestroika (1986-1991): ecological disasters, from Chernobyl to the Aral Sea to countless lesser explosions, leaks and crashes, revealed the vulnerability of Soviet people and the degradation of the environment brought about by productivism. The catastrophes fuelled protests against Moscow in national republics. Budget cuts since the 1970s had weakened the healthcare system, which did not adapt to the surge in chronic diseases and cancers affecting industrial societies. It also proved unadapted to (re)emergent infectious diseases at the end of the 1980s with outbreaks of syphilis, diphtheria, cholera, HIV infections and drug-resistant tuberculosis. Publication of dire demographics and health statistics, as well as sanitary scandals picked up by a freer press, put the terrible state of the Soviet healthcare system under constant observation and lead to a widely held discredit of Soviet medicine. For many Soviet persons, the state had failed in its core mission of protecting the health of the inhabitants.

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Paper 1:

Marin Coudreau, CNRS Centre National de la Recherche Scientifique, CERCEC, France

The Health Consequences of Agrochemicals in the late Soviet Union

In the 1960s, the Kremlin started a large-scale program for the development of highly toxic agrochemicals under the slogan «Chemicalising Agriculture». By the end of the Soviet era, these chemicals were being used on 88 percent of the country's total agricultural area. The widespread deployment of toxic substances had dramatic consequences on human health. The extent of these consequences can be examined in the recently opened archives of the All-union Research Institute on the Hygiene and Toxicology of Pesticides, Polymers and Plastics (VNIIGINTOKS), an important Soviet research centre founded in Kiev in the mid-1,960s.

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Paper 2:

Irina Andryushchenko, University of Tübingen, Germany

The Case of Lidiya Novikova: Cancer Experience and the Art of Suffering in the Soviet Union

In the early 1950s, the Soviet Academy of Sciences began to collect data on the incidence of cancer. According to these statistics, cancer accounted for one quarter of all deaths in 1989. The finding led to intense controversies about the aetiology of cancer, the need for prevention and taking responsibility for your own health. The human body and its basic characteristics, such as pain and suffering, could be reflected in personal memoirs, an example of which is the diary of Lidia Novikova, a teacher from Tver, who was diagnosed with breast cancer in the late 1990s and treated for it.

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Paper 3:

Marc Elie, CNRS Centre National de la Recherche Scientifique, CERCEC, France

Ust'-Kamenogorsk: Protests against the Military Industrial Complex in late-Soviet Kazakhstan

In Ust'-Kamenogorsk (or Oskemen) in September 1990, inhabitants took to the streets after a fire at a metallurgical plant located in the very heart of the city had caused the accidental release of about 50 tons of pulverized beryllium, a highly carcinogenic substance. Protesters expressed their despair, rage and fear to be living next to 100,000 tons of nuclear waste managed since the 1950s by the very plant responsible for the beryllium leak. The paper explores the protests as well as the municipality's and Moscow's response to them. Why did the protests failed in durably improving the sanitary conditions in the city? Why did the protests fade out after 1991, at a time of independence and deindustrialization?

1404-C11 on Friday, 25.08.2023, 14:15-15:45

Unitobler – F 005

Writing the mountain

Organiser:

ESEH Programme Committee

Chair:

Christof Mauch, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

Paper 1:

Nicolas de Félice, University of Geneva, Switzerland

The mountain and the lake: topographical contrasts between Lake Geneva and the Alpine region from Rousseau to 19th century travellers

The aim of my presentation is to analyse how, as from the second half of the 18th century, a specific view of the Alps was developed, underlying their symbolic and topographical significance. Jean-Jacques Rousseau was one of the first to give a central place to the Alps as a landscape element marking the Swiss identity. In his successful novel *Julie ou la nouvelle Héloïse* (1761), the feelings of the protagonists are reflected in the natural environment, which plays an important part in the plot. The importance attributed to the natural elements on the human psyche in Rousseau's vision of the world is characteristic of the pre-romantic trend that spread in Western societies at the end of the Enlightenment. Following Rousseau, many travellers struck by the contrasting landscape became fascinated by Lake Geneva and its mountainous surroundings. From the 1760s to the 1830s, several generations of men and women described in their travel diaries their emotions when visiting the places evoked in Rousseau's novel. The story may be fictional, but the places such as Clarens, Meillerie or Vevey do exist. In my presentation, I will discuss how Rousseau's lyricism influenced the various narratives of ordinary people relating their trip along the Alps and Lake Geneva. Eventually I will show in which way the philosopher's pre-romantic literary conception became a milestone of the shared collective representation of the Lake Geneva environment.

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Paper 2:

Kadri Tüür, Tallinn University, Estonia

Estonian environmentalism expanded: mountains in Estonian travel writing

The topic of the proposed presentation is history of environmental knowledge related to mountains and plains. Countries around the Baltic Sea are predominantly flat. However, historical conditions have granted many from this area the opportunity to explore mountainous regions in the Eastern parts of the former Russian / Soviet empire. Especially the 1970s saw a heyday of geological and biological scientific expeditions to less explored and less accessible mountainous areas in Central Asian regions. On the state level, the aim of geological expeditions was to find new mineral resources that the growing heavy industry demanded. On the level of an individual, these expeditions provided challenges and wilderness romanticism for the participants who often came together from distant corners of the Soviet empire.

In the presentation I will take a closer look at how Estonian field biologists, geologists and naturalists constructed and narrated their experience of the geographically and landscape-wise different regions they visited as members of Soviet naturalists' expeditions. The main sources for the presentation are books of travel writing (in Estonian) by Vambola Maavara, Viktor Masing and Linda Poots, as well as a play about a geological expedition by a renown Estonian writer and seasonal hunter Nikolai Baturin.

From a meta-perspective, it can be asked, then, what was the activity these naturalists engaged in? Was it collaboration with Soviet imperialism and its ever-growing greed for new resources? Or was it a strive for personal and professional growth? Or just mere curiosity? What can we learn from these experiences?

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Paper 3:

Nirmalendu Maiti, Mahishadal Raj College, India

Disintegrated Mountains: Colonial Himalaya and Environmental Disjunction in Stephen Alter's *In the Jungles of the Night*

Geologically, the Alps and the Himalayas share a common past of mountain-formation—the orogenic event of plate-tectonic movement. Yet, the Alpine and the Himalayan landscapes are widely different from each other. Beside geographical differences, different cultural perceptions seem to shape these two mountain-spaces distinctively. For example, unlike the Alpine landscape, the Himalayas are often believed as «holy» sites. To maintain sanctity of these mountains, the locals would not intrigue much with the wildlife. Pre-colonial Himalaya was a spatial integrity between the humans and the non-humans. However, Colonial settlement at the Himalayan foothills completely altered human-mountain relations, affecting the surrounding environment and eco-spaces. Expansion of agricultural lands, new settlements, establishment of hill stations, plans of «vermin» control and hunting—all seem to pave the way for massive environmental loss in Uttarakhand Himalaya.

Stephen Alter's «In the Jungles of the Night» (2016) deals with colonial transformation of the Himalayan eco-spaces. Alter's novel is a fictional recounting of Jim Corbett, wherein his character appears more of a naturalist, than a hunter. Taking Alter's novel as a case-study, this paper proposes to examine how colonisation deteriorates Himalayan environment by creating spatial conflicts between humans/non-humans, culture/nature. The paper would argue how colonial establishment commodifies Himalayan Forest for economic development even at a cost of ecological deterioration. How affected eco-space alters natural habit among the wildlife, including the rise of maneaters, would exclusively be discussed in this paper. Finally, the paper would argue why restoring and maintaining mountain environment is important in sustaining life on Earth.

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Paper 4:

Steve De Hailes, University of Bristol, United Kingdom

Mountains of the Medieval Mind: Redefining Highland Topographies in Works of Middle English Literature

A modern European fascination with mountains is often thought to be a product of the late seventeenth and eighteenth centuries, when developments in our understanding of the age and formation of the Earth, as well as changing attitudes toward the natural world (a new artistic interest in the Sublime, for instance), brought mountains into the popular imagination in a way that marked a distinct shift in attitude from earlier centuries. But is there more to say about the way that people engaged with mountainous landscapes in the premodern world? And what can a deeper understanding of past attitudes toward mountains tell us about our own complex relationship with these landscapes? Focusing specifically on the presentation of mountains in works of medieval English literature, this paper will seek to demonstrate that mountains in the medieval imagination are more than just desolate inhospitable spaces that stand in opposition to the more fertile, civilised lowland settings that surround them. Rather, they are important semiotic landscapes that embody a broad range of literal and figurative meanings and interpretations. Drawing on specific examples of mountainous landscapes in Middle English literature – including Arthurian legends, biblical narratives, and medieval travel narratives – this paper will examine the complex interplay of political, religious, cultural, and ecological contexts that helped to inform the way medieval authors and audiences are thinking about and engaging with mountains and highland terrain.

1405-128 on Friday, 25.08.2023, 14:15-15:45

Unitobler – F 013

Militarised landscapes: mountains and plains on the eastern and south-western fronts of the First World War (H)

Organiser:

Kerstin Von Lingen, University of Vienna, Austria

Chair:

Kerstin Von Lingen, University of Vienna, Austria

Abstract:

Due to industrial warfare, the First World War became a turning point in the conflict between man and the environment. Bomb destruction of soils, poisoning of waters and deforestation of virgin forests on a large scale made nature the first victim of war (T. Keller) and determined the emergence of specific anthropogenic (Kirges) landscapes. The high level of development of technologies created for the first time the possibility not only completely to destroy natural objects, but also to construct their technically designed analogues. This also gave rise to new branches of science - military geology and military hydrotechnics - which enabled a cold-blooded calculation of the potential of militarised nature and a forecast of the damage inflicted on it. Mountains and plains were evaluated as resources of a military strategy; their partial destruction and transformation were calculated on the basis of demographic, epidemiological and, in some cases, ecosystem consequences.

The panel will address the specific and universal ecological aspects of war experiences on the Western and Eastern Fronts, the long-term effects of the militarisation of mountain and lowland landscapes, the transfer of practices between the front and the home front. A comparative approach and the inclusion of new sources allows us to balance the hitherto dominant focus on the Western Front of the First World War and to raise the following important questions for discussion: To what extent did warfare (manoeuvre or positional warfare) influence the extent of environmental damage in the mountains and in the lowlands? What role did engineering play in the geo-deformation of mountain and lowland areas during the First World War? How radically different were practices of dealing with «own» versus occupied landscapes? Is it possible to trace a dynamic of change here?

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Paper 1:

Gustavo Corni, University of Trento, Italy (V)

Mountains at war: Transformations of the Alpine landscape in Trentino from 1866 to 1918

Warfare at the Austro-Italian front was a hard experience during WWI, as it included the adaptation to and the radical transformation of the natural landscape of the mountain region. Not only the war itself provoked changes in the mountain landscape (e.g. the mining of entire peaks), but also the logistic preparation before and during hostilities. The process of preparation for a possible war began already after 1866, when Italy incorporated the Venetian region, accelerating at the beginning of the 20th century. To construct communication and transportation lines and forts at the border, roads, ropeways, telephone lines and aqueducts were needed, and dramatic changes in the natural environment were caused by tunnels and bridges.

The transformation of landscape was particularly rapid in the Valsugana and on the Plateau of Lavarone and Folgaria. It coincided with the beginning of modernization of the local economy and society. As the war broke out, the Alpine and Plateau Front underwent more drastic transformations in order to move,

nurture, hide and supply a high number of combatants and animals, and – of course – to fight against the enemy as well as against the extreme cold, the altitude, ice and snow. In mountain warfare itself, extreme physical constraints exalting individual heroism and endurance was paired with technological innovation and the recruitment of local labour forces (men and women), balancing harsh naturality and technological artificiality. The logistical preparation and the warfare itself in their complex interaction with nature and society are in the centre of the proposed paper.

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Paper 2:

Francesco Frizzera, Museo Storico Italiano della Guerra, Rovereto, Italy (V)

Tyrol 1861-1914. The impact of mountain fortifications on landscape, economic development and environment.

The preparation for an industrial war in the Trentino-Tyrolean Alpine region produced significant upheavals on the terrain, on long-standing agro-pastoral uses and on the perception of man-made space. The impact of military activities began decades before the outbreak of war.

In the second half of the 19th century, Austro-Hungarian military engineers began construction on a defensive system near the borders of southern Tyrol. Between 1861 and 1915 about 80 fortifications and a 300 kilometres long entrenched system were built in Trentino. According to Vienna's plans, in the event of a conflict with Italy and Russia, Tyrol would have to resist against a numerically superior enemy. About 20,000 civilian workers were employed. These activities had an impact on the terrain, landscape, economy and civil population in a delicate environmental and economic context. Fortifications constituted an element of anthropization destined to deeply mark the face of the mountain, to engrave indelible marks on morphology, flora and fauna. The deforestation altered the landscape and the forestry economy of many areas with low population density. Military priorities prevented the planned urban growth in the region and impeded tourism infrastructure. Military garrisons and personnel impacted on relationships with the civilian population: in the city of Trento alone, 10% of the population was made up of soldiers, speaking different languages. The presence of these groups and investments led to the heightening of political tensions and, incidentally, to an obsessive control by the military of printed and photographic representations of the territory, for fear of military espionage.

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Paper 3:

Oksana Nagornaja, University of Tübingen, Germany

Floodings and floodplain marshes in Galicia and Polessie in the strategy of Russian armies in the First World War (1914-1917).

The long and repeated occupations of Galicia and Bukovina by the Russian armies created a special military and ecological space of the First World War. The rapid conquest of the Austrian territories in the East and their positioning in propaganda as historical territories of Russia conditioned the measures to integrate the provinces into the structures of the Tsarist Empire. Natural geographic arguments about the unity of the Russian lowlands «up to the Carpathians» and ideas about the inexhaustible nature of Galicia were at odds with the strategic planning and execution of military operations. The Russian withdrawal of 1915 was a turning point that transformed the imagined «own» country into a «foreign» one, which allowed a scorched earth practice. The lowlands along the rivers Zbruch, Gnyla, Studenica and Dniester were flooded for strategic purposes, to stop the enemy's advance with swamps for a while. Similar practices were applied on an even larger scale in Polessie (Belarus). At the same time, the military commando, military geologists, and the local administration discussed the impending loss of unique natural space of the former Tsarist reserve. Using Russian military archives and ego-documents, the proposed paper will examine the practices of Russian military hydrology on the Eastern Front and the ecological impact of the war on the lowlands of Galicia and Polessie. What role did nature-based arguments play in the disputes between army

commandos, engineers, and local authorities? How strongly were practices of ruthless militarisation of nature linked to constructions of «own» and «foreign» land?

1406-154 on Friday, 25.08.2023, 14:15-15:45

Unitobler – F 021

Coal and Modernity

Organiser:

Charles-François Mathis, Université Paris 1 Panthéon-Sorbonne, France

Chairs:

Marianna Dudley, University of Bristol, United Kingdom

Abstract:

As one of the main sources of greenhouse gas emissions, coal has been disparaged, in the last decades, as an energy of the past, that belonged to an industrial age long gone - even though it has never been more consumed at the global level than nowadays.

This session will argue that, far from forgetting coal, and to achieve their transition to a sustainable future, our societies must learn from its history and the ways it was perceived by those who strongly depended on it. What coal can tell us of our modernity (defined as a process, based on the material, urban and technological development of societies, and on an imaginary where progress separates human societies from their natural environment), and how it shaped it, is key to our understanding of our own current ecological crisis. We will therefore analyse this issue in four different ways, beginning with the very concrete role of coal in the development of Toronto from 1850 to 1930, and how its imports fuelled industrialisation (Watson). But, due to its central role in the development of Western countries, coal was also part of an ideological framework that linked it to civilisation and modernity: coal's «natural history» in 19th-century Britain was formulated into a meaningful story that made sense of the past, present and future of the kingdom (Yuval-Naeh). Likewise, William Morris's denunciations of the material – and notably energetic – gluttony of his time, may be seen as an early proposal of an energy sober society (Mathis). Finally, coal created a whole technological infrastructure that was central in the development of nuclear technology and safety measures (Evens).

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Paper 1:

Andrew Watson, University of Saskatchewan, Saskatoon, Canada

Fuelling the Big Smoke: Coal Imports to Toronto, Ontario, 1850-1930

In 1850, Toronto was a small colonial port on Lake Ontario with a population of 30,000. By 1930, it was the provincial capital and a major urban centre of commerce and industry on the Great Lakes with a population of 810,000. This paper tracks the enormous increase in the flow of energy that contributed to the growth of the city by evaluating the impact of the transition from organic to mineral energy reflected in changes to the deliveries of firewood, coal, and oil from the mid-nineteenth century to the interwar years. By investigating the harbour dues paid on energy commodities entering Toronto's ports, delivered by tens of thousands of ships, this paper will provide a fine-grained analysis of Toronto's energy needs and constraints over 80 years, and will consider how the city relied on an energy resource hinterland lying around Lake Ontario and Lake Erie to meet its fuel needs. Urbanization and industrialization relied heavily on coal, but evaluating how those developments initiated, or were shaped by, fluctuations in the availability of energy requires detailed data. This paper considers what insights into urban energy history are possible by analysing nearly a century of energy imports.

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Paper 2:

Naomi Yuval-Naeh, The Hebrew University of Jerusalem, Israel

Coal's Histories: Narrating Coal's Past and Thinking about its Future in 19th-century Britain

Nineteenth-century Britons were keenly aware of the significance of coal to their lives and saw their era as «the Age of Coal», as famously coined by economist Stanley Jevons in 1865. In the eyes of contemporaries, coal was a symbol of the modern era, i.e. of the present. It also sparked hopes, questions, and concerns regarding the future. However, beyond this modernistic approach, coal was also conceived as a product of bygone times. In its material essence, as a fossil, it was a relic of the deep past created millions of years ago. This made coal a tangible link between eras and times – past, present, and future.

To flesh out this notion, I will explore the birth of the «history of coal» as a historical narrative. While to some coal's history was limited to the history of its uses by humans, many focused on its geological creation. Coal's «natural history» was narrated as a history, modelled in the like of human histories, and formulated into a meaningful story that projected unto the British present and future. I will argue that the Carboniferous Period could be analysed along with other «pasts» that captivated Victorians, from ancient Egypt and Assyria to Tudor England. Coal's history linked together nature and humanity and offered a compelling and consequential narrative to the people of the first industrial society.

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Paper 3:

Charles-François Mathis, Université Paris 1 Panthéon-Sorbonne, France

Morris & Coal: Energy and sobriety

Nineteenth-century Britain was celebrated at the time, in newspapers, political speeches, pamphlets etc. as a coal civilisation. This was mainly due to the industrial power that coal gave to the country, and the rule the latter exercised over the world. But one can argue that coal not only ensured economic and political power, but that it also shaped ways of being and of thinking, and that it indeed gave birth to a proper civilisation: as I have shown in my most recent book, it infiltrated the daily lives of Victorians, their interior and exterior environments, their tragic vision of a providential power that will come to end and bring with it the doom of the country. Some clear-sighted intellectuals were critical, from the beginning, of this civilisation, whose main features we have inherited today.

In this paper, I will analyse how William Morris, the famous writer/artist/designer/socialist challenged the energy system of his time. Morris's environmental criticism of his age has been more and more studied in the past decade, but not his thoughts on energy and coal. Using his novels as well as his correspondence and political speeches, I will argue that he offers a pungent denunciation of the constant increase in energy consumption and demand that characterises Victorian Britain and more generally modern societies. His very thoughtful conception of what a good and happy life might be, so vividly opposed to what his contemporaries defended, may be seen in that light as one of the first proposals for an energy sober society – and therefore a source of inspiration for our current crisis.

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Paper 4:

Siegfried Evens, KTH Royal Institute of Technology Stockholm, Sweden

The Cradle of Nuclear Energy: How Coal Shaped Reactors and Nuclear Safety

To combat climate change and complete a sustainable energy transition, we need to phase-out fossil fuels. One industry that has tried to jump up to the occasion is the nuclear industry, which claims to be CO2-neutral alternative to coal and oil energy production. This paper will take a closer look at the historical

interactions between the fossil fuel industry and the nuclear sector. The seemingly large hostilities between the fossil fuel industry and the nuclear sector become deceptive when one looks at nuclear history.

In this paper, I will argue that knowledge of coal power production has been essential in the development of nuclear technologies. Despite promising an alternative to coal, utilities built light water reactors that were modelled after coal power plants and used similar plant layouts. This convergence is the most apparent when looking at nuclear safety. I will show that engineers in the nuclear sector relied for nuclear safety measures on knowledge from the fossil fuel industry in two major areas: thermal hydraulics and metallurgy. Between the 1960s and 1980s, nuclear engineers became gradually aware that understanding water flows, boiling, and steel decay was essential to preventing nuclear meltdowns.

Places like the iron works of Blaenavon, which ESEH conference participants visited in July, can therefore be seen the cradle of nuclear power. Even today, some utilities are thinking about re-using abandoned coal power plants by just coupling a reactor core to its cooling circuits and turbines. Historians can thus make a valuable contribution to the energy transition debates by showing how science and technology from the «Steam Age» remains relevant in a society that is phasing out fossil fuels.

1407-261 on Friday, 25.08.2023, 14:15-15:45

Unitobler – F 022

Atomic Rivers

Organiser:

Alicia Gutting, KTH Royal Institute of Technology Stockholm, Sweden

Chair:

Alicia Gutting, KTH Royal Institute of Technology Stockholm, Sweden

Abstracts:

In the summers of 2003, 2018 and 2022, nuclear power plant operators across continental Europe were repeatedly forced to shut down their reactors fully or partly. The reason was that the water levels in large rivers such as the Rhine and the Rhône were too low to provide sufficient cooling water or, more commonly, that the temperature of the cooling water that was returned to the rivers exceeded official limits as specified in environmental regulations. These «nuclear heatwaves» of the past two decades coincide with a (metaphorically) heated debate on climate change and the role of nuclear energy in combatting climate change. Nuclear energy advocates query that governments in Europe are not paying enough attention to the contribution of nuclear energy in the struggle for a fossil-free world. The opponents, meanwhile, argue that nuclear energy is as risky as it has always been, and that a warming world makes nuclear energy, especially when the plants are located on one or the other river, even more dangerous and more prone to unplanned disruptions in their regular operation. This session explores the historical underpinnings of the current crisis – and the debate about it – for riverine nuclear energy in Europe.

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Paper 1:

Alicia Gutting, KTH Royal Institute of Technology Stockholm, Sweden

Per Högselius, KTH Royal Institute of Technology Stockholm, Sweden

Nuclearized River Basins: Comparing the Rhine, the Danube and the Elbe

This paper analyses the history of nuclear energy in Europe through the spatial lens of river basins. All large-scale nuclear facilities are critically dependent on ample, regular, and reliable flows of water for cooling. This explains why approximately half of the world's full-scale nuclear power plants were built

along one or the other major river (the other half were erected on coasts or large lakes). The erection of nuclear plants along rivers generated a range of problems, including thermal pollution, fears of drinking water quality, concerns over water scarcity and flooding, and tensions with non-nuclear industries. The paper looks closer at the nuclearization of three key transboundary river basins in Europe: the Rhine, the Danube and the Elbe. The coming of nuclear energy grew most conflictual in the Rhine basin, and especially along the Upper Rhine, where multiple nuclear facilities were proposed and built in a concentrated area featuring several political borders. The nuclearization of the Elbe, especially its middle part, featured tensions between East and West Germany. The Upper Elbe's problems were dominated by the severe effects of radioactive pollution from the uranium mining and milling, while the Lower Elbe, being a tidal river, faced the task of integrating large-scale nuclear plants into a densely industrialized region with heavy maritime traffic. The Danube, for its part, became Europe's most heavily nuclearized river basin, with 32 large-scale reactors. Its nuclear career was shaped by earlier hydraulic engineering schemes and by geopolitical concerns. In contrast to the Rhine, however, the Danubian nuclear plants were always far away from each other, which reduced potential conflicts.

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Paper 2:

Agnès Villette, University of Southampton, United Kingdom

A river's story: the St Hélène's radioactive biography

Taking its source directly underneath La Hague's ORANO's refuelling nuclear plant, the St Hélène River has become, for the past six decades, the natural and living receptacle for the long and contentious slow violence of radioactive contamination. Whereas the nuclear plant's inside perimeters remains out of reach, and therefore closed to investigation, the river has progressively become a living non-human ledger retaining the memory for the iterative spills and leakages that have taken place in the vicinity of two combined and complementary sites, that of ORANO's reprocessing plant and ANDRA's near-surface low to medium nuclear waste repository. Elaborating a diversity of connections between the terrestrial moors where the nuclear infrastructures were built and the sea, where toxic effluents are continuously released, the river assumes a dominant relational role that helps apprehend La Hague's toxic legacy. The St Hélène as living intertwined ecosystems is a witness from which to tease out narrative and investigative accounts for the continuous pollution. Rivers, through their wet ontologies, are situated at the interface of riverine ecosystems, that of sediments and plants and watery drifting fluxes defined by weather patterns. As such, the St Hélène is capable of both displacing radioactive nuclides, as well as fixing and concentrating them. This paper elaborates on the toxic biography of the St Hélène River. Exploring the diversity of its ecosystems, it is structured into 5 sections: Source, Sediments, Liquid, Flow and Estuary that propose to investigate the contested biography of the river.

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Paper 3:

Christian Götter, TU Braunschweig, Germany

Accepted to Cool – Conflicts about Cooling Technologies for Riverside Nuclear Power Plants

Riverside nuclear reactors were often faced with the challenge of having to technically improve «their» rivers' cooling capacities. This paper discusses three cases from Germany and Great Britain, where different technical solutions were sought for different variants of the problem: In Oldbury-on-Severn (Britain), a reservoir inside the river was to guarantee cooling water availability at low tide. Critics, whose experience-based expectations ultimately proved more reliable than the model-based calculations of industry experts, hardly gained wider attention for their protests against the construction inside the river. In the case of Biblis (Germany), cooling towers became a major point of attack for opponents of the nuclear power plants as their size increased with the number of reactors planned. Finally, in Lingen (also Germany), an artificial lake was to ensure the cooling capacity of the Ems River in dry periods. Opponents of the power plant, who

focused on the lake, failed to stop it, because it was made acceptable to the population by integrating biotopes and recreational facilities. The paper puts forward a two-part hypothesis: Firstly, that artificial cooling facilities were controversial from the beginning; the more visible they were, the greater the resistance they aroused, up to the point of becoming primary targets of attack of nuclear power's opponents. Secondly, however, the examples clearly demonstrate that even the largest, most far-reaching, and most visible artefacts could be made acceptable to the local population if they were equipped with features that were positive for the local environment and social life.

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Paper 4:

Louis Fagon, École des hautes études en sciences sociales, France

The nuclear industry along the Rhône, an industry like any other? Debates and regulation of water use, thermal and radioactive pollution by nuclear installations from the 1950s to the 1980

The aim of this paper is to study the regulation of water intakes and discharges by the nuclear industry along the Rhône, from the establishment of the first plutonium production site called Marcoule (in the Gard department in southern France) in 1952, to the final choices of EDF nuclear power production sites at the turn of the 1980s. Using local archives along the river, and in particular documents from the «Navigation Service» and the «Basin Agency», two administrations in charge of river control, we will highlight two aspects of nuclear and water regulation. Firstly, through the example of Marcoule, we will show that during the 1950s and the 1960s the regulation of nuclear water uses and of radioactive pollution was largely improvised by the administrations in charge of the river. Despite the scientific uncertainty, it was above all a question of reassuring the population concerning liquid radioactive discharges without curbing the production of plutonium. Secondly, with the establishment of the first EDF sites (Bugey in 1964) and above all with the multiplication of projects in the Rhône watershed area, the temperature of liquid discharges is the subject of major debates. The risks of synergy between the increasingly powerful reactors that accumulate upstream and downstream are worrying and are the subject of numerous studies. The engineers of the Navigation Service, but above all the members of the newly created Basin Agency, took up this question to participate in the regulation of the nuclear program. In doing so, they raised the question of the river's environmental limits: could the Rhône be saturated with nuclear power?

1408-235 on Friday, 25.08.2023, 14:15-15:45

Unitobler – F 023

Belonging and Non-Belonging in marine environments in the time of the accelerating biodiversity loss

Organiser:

Otto Latva, University of Turku, Finland

Chair:

Matti O. Hannikainen, University of Helsinki, Finland

Abstract:

In this session, we look into marine and coastal environments in Finland and dwell on questions of non-human belonging and non-belonging. We explore what species people have wanted to share their living environments within the Baltic Sea area and what species have been excluded in the past and present. We focus on emotions, perceptions and practices of including and excluding, granting and denying biological

and national belonging. Our time scope is broad as we look both into the past and present and our perspectives range from environmental history to multispecies studies.

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Paper 1:

Otto Latva, University of Turku, Finland

The shared history of humans and great cormorants in the Finnish sea area since the late 19th century.

In recent years, the public discussion of great cormorants has increased in the Finnish media. This is mainly because the population of cormorants in Finland have grown enormously since the 1990s. Cormorants have begun to be perceived as a nuisance for fishers, but also as animals that destroy the archipelago environment with their excrements. Because of these matters, some people have begun to express wishes to decrease the cormorant population. Nevertheless, the great cormorant is a protected species in Finland throughout the year under the Nature Conservation Act. This has led to a situation in which people have begun to use history as their tool to justify the elimination of cormorants. There have appeared arguments explaining that people have always regarded cormorants as ugly birds or that they do not belong to Finnish nature. In this paper, I will show how ahistoricism and short-sightedness is visible in the present public discussion of great cormorants. I will also demonstrate how the study of the shared history between animals, evoking heated debate, and humans, is able to overturn these kinds of arguments, and in this way perhaps influence the cultural adaption of introduced species.

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Paper 2:

Heta Lähdesmäki, University of Turku, Finland

Rats and birds as urban neighbours: Helsinki as a multispecies coastal city

This paper derives from an urge to understand a present-day conflict: In today's Helsinki, the capital of Finland, many people want to feed birds, seeing it as a rewarding way of helping wildlife. But, because bird-feeding often attracts urban rats to spaces humans have meant for birds, this multispecies practice is causing conflicts between humans. For instance, this has resulted in bird-feeding prohibitions in different public and private spaces. In this presentation, I investigate the historical context of this bird-feeding and human-rat conflict. By using various historical sources from the late 19th century onward, I show what bird species people have wanted to feed and thus welcome as their neighbours in this coastal city. In addition, I highlight how Helsinki citizens have deemed the brown rat an unwanted neighbour through different practices since its arrival to Finland on merchant ships at the beginning of the 19th century. By looking into practices of inclusion and exclusion, my paper examines the challenges of living in a multispecies coastal city. Some animal species are welcome to live in urban areas, while others are not.

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Paper 3:

Kirsi Sonck-Rautio, University of Turku, Finland

Co-existing with green-blue-algae – perspectives from history and present day

The Green-blue algae, a.k.a Cyanobacteria has been on earth much longer than humans, and it is part of the natural cycle of water bodies. However, due to many human-induced environmental issues, such as eutrophication and global climate warming, cyanobacteria blooms are getting more attention as they indicate poor water quality. Poor water quality inflicts humans in many ways, preventing the utilization of fresh water for leisure or for drinking, for example. Cyanobacteria blooms have been classified as harmful algal blooms (HAB) as they cause harm to humans, ecosystems, and the economy. This paper examines the ways Green-blue-algae and human co-existence has developed over time and what are the current-day attitudes like, and where they stem from. The data for this paper consists of extensive Finnish newspaper

archives and interviews conducted in different locations in Finland.

1409-463 on Friday, 25.08.2023, 14:15-15:45

Unitobler – F-105

Mountains of nutrients, plains of soy: Global connections between the hotspots and shadow places of the soy web (2/3)

Organiser:

Floor Haalboom, Erasmus University Medical Center Rotterdam, The Netherlands

Chair:

Erik van der Vleuten, Technical University Eindhoven, The Netherlands

Abstract:

Historical changes in the soy web made major shifts in human diets and industrial livestock farming possible. These shifts were accompanied by entangled social and environmental impacts in both the global south and global north, which were invisible to many. Such places invisibly affected by a global web of commodities have been called «shadow places» by the Australian ecofeminist philosopher Val Plumwood. In three parts, «Mountains of nutrients, plains of soy» aims to bring together recent historical transnational work on soy, and to debate how such histories can make connections between the global north and global south visible. In the first two parts, scholars involved in three different Europe-based research projects on the history of soy present their work: historians working on «Soy Change» (historical ERC project based in Austria), «Soy Stories» (transdisciplinary Dutch Research Council project based in the Netherlands) and «What does your meat eat?» (historical Dutch Research Council project based in the Netherlands). In a Roundtable session the panellists debate the question how to make connections between the global north and the global south central to such Europe-based research. What do the different projects and approaches make visible and invisible about places related to the global soy web? And what does this bring present-day debate about global injustices and environmental destruction related to soy?

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Paper 1:

Maximilian Martsch, Johannes Kepler University Linz, Austria

«Edelsoja»: Commercializing soy flour in the Great Depression and the Second World War

The Vienna-based company «Edelsoja» was Austria's first commercial producer of full-fat soy flour. Founded in the late 1920s by the Austrian entrepreneur Ernst Kupelwieser, soy flour was marketed to consumers as a wholesome, nutritious, and cheap source of high-quality protein – the «boneless meat». Contrary to the promises of the lofty marketing campaign, soy foods and soybeans, in general, remained a niche product of the agro-food system in the interwar period in Austria. However, with the rise to power of the Nazi Regime soy products gained attention as an effective source of fat and protein in light of the new agrarian policy of autarky. With the annexation of Austria, «Edelsoja» became one of the main suppliers of soy flour for the Nazi Regime. The paper follows the history of the company «Edelsoja» as an actor and node of the emerging soybean industry in Central Europe. It will show that the introduction of soybeans, a foreign cultigen, and its commercial maturing required a specific arrangement of knowledge and technology, regulatory institutions, and commodity chains. The paper is part of the FWF research project Soy and Agro-Food Change (SoyChange).

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Paper 2:

Gabriel Tober, Johannes Kepler University Linz, Austria

From niche to mainstream? Actor-networks around soy since the 1970s

After World War Two, soybeans played a crucial role in the Western Nutrition Transition as an animal feed for the expanding meat industry and as a vegetable oil in human nutrition. However, before they became a visible cash crop and an inherent part of the agro-food regime, soybeans were an invisible niche product. To better understand soy's upgrading to the mainstream, the paper adopts the Multi-Level Perspective - (regime, niche and landscape levels) on socio-technical transitions to examine niche-regime interactions and the formation of soy-centred networks on a national level (Austria) as part of the transnational soy web. Hence, the central question of the paper is which innovative actors and networks around soy in plant breeding, production, processing and distribution led to the rise of soy as feed and food in Austria since the late 1960s. According to food regime theory, this period comprised the crisis of the «US-centred food regime» and the (possible) transition to the «WTO-centred food regime». At that time imports of soybeans had already taken-off in Austria and domestic production was discussed as a solution to reduce import-dependency. By drawing on interviews with soy pioneers and focusing on relational aspects, the paper offers not only an in-depth analysis of social interactions in transitions but also shows how domestic niche developments were transnationally connected. The paper is part of the FWF research project Soy and Agro-Food Change (SoyChange).

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Paper 3:

Claiton Marcio da Silva, Universidade Federal da Fronteira Sul, Brazil

Samira P. Moretto, Universidade Federal da Fronteira Sul, Brazil

A Brazilian vegetable chicken for Singapore's tables and other stories: a multi-layered analysis of soy ubiquity between Asia and Latin America

In statistical terms, soy trade between Asia and Latin America is impressive, as the Chinese alone imported 28 million tons from Brazil in 2022 for animal feed, around 79 % of the production. In visual terms, recently, a graphic representation showed the impressive number of ships that leave Brazilian ports towards the European Union, but mainly to Indonesia and China. With the escalation of geopolitical tensions such as the war in Ukraine, other Asian markets must import a greater amount of soy oil from Latin America. Such Asian-Latin American relations are little explored by scholars, who are more interested in studying the European Union as a mediator of relations between Asia and Latin America. Therefore, soy and the multiple products that result from this oilseed are an excellent example for tracing demand, production, and intercontinental marketing networks. More than that, they allow us to understand how forests and savannas are sacrificed in the name of vegetable oils and proteins, at the same time as large port and road infrastructures were built to transport soy. Considering these multiple relationships and scales that involve the production and planetary consumption of soy, this paper therefore aims to analyse the paradoxical relationship that involves the search for sustainable uses in the midst of unsustainable soy production, which make Asia and Latin America – but also Africa, – socio-environmental and historical innovation laboratories that sometimes interconnect on micro and macro scales.

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Paper 4:

Floor Haalboom, Erasmus University Medical Center Rotterdam, The Netherlands

What the focus on soy makes invisible: Feeding industrial livestock anything from cassava to fossil fuels in the Netherlands (1954-present)

In recent decades, soy attracts a lot of attention as a globally traded commodity for feeding people and animals, because of its connection to the large-scale destruction of indigenous people's living environments and ecosystems in Latin America. However, soy is not the only feed ingredient making

industrialised farms in relatively wealthy places possible. Indeed, the attention for soy tends to hide from view other shadow places of industrialised farms. I will show the importance of focussing on the commodity of compound feed for understanding global connections in the history of industrially produced meat, eggs and milk. Apart from soy, compound feed was created out of many globally traded ingredients during the second half of the twentieth century. Animals in Dutch 'factory farms' were fed anything from Thai cassava meal to Peruvian fishmeal, and from ground up whale to fossil fuels. Many of these ingredients came from global south contexts, and all of them were entangled with social and environmental change. The paper is part of the Dutch Research Council NWO-project What does your meat eat? A global environmental history of Dutch livestock feed (1954-2020).

1410-424 on Friday, 25.08.2023, 14:15-15:45

Unitobler – F-113

Aluminium Moving South: Social and Environmental Implications (1/2)

Organiser:

Simon Lobach, Geneva Graduate Institute, Switzerland

Chairs:

Anne Dalmasso, Université Grenoble Alpes, France

Yun Zhai, Université Paris 1 Panthéon-Sorbonne , France

Abstract:

Aluminium production has, for the largest part of the 20th century, been a northern («western») affair. The main aluminium-producing companies, based in North America and Europe, only relied on the Global South to obtain bauxite, the raw material (Smith, 1988; Campbell 1985-90). However, since the 1970s, several of the original «Big Six» aluminium companies have transferred productive capacity (including alumina production and hydroelectricity capacity) to the Global South (Sheller, 2014). This move has occurred at a time when in the northern countries, increasing attention was given to the social and environmental impacts of the aluminium countries. Since then, the market has become increasingly fragmented as new aluminium companies have emerged. With China, Brazil, Indonesia, India and others as the new producers, most of the world's aluminium is now produced in the Global South (Barjot, 2019).

This panel aims to assess the social and environmental implications of this «Move South». Why and how has this «transfer» occurred? Have aluminium companies been able to keep to their promise of initiating or contributing to a process of «development»? Which citizens of countries in the South have been most impacted by the expansion of the aluminium industry? How has the expansion of the aluminium industry (including its opening of bauxite mines, alumina factories, and hydroelectric and thermal power stations) increased central governments' control of hitherto marginalized areas? And while producers in Europe and North America became increasingly tied to environmental regulations domestically, what limitations or measures have governments in the «South» been able to impose on aluminium producers, or what measures to increase sustainability have they taken?

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Paper 1:

Yun Zhai, Université Paris 1 Panthéon-Sorbonne , France

A Comparative Study of Sustainable Development Strategies in the Chinese and International Aluminium Companies Since 1994

Today, global aluminium companies are expected to play a essential role in the construction of a more

sustainable society. During their operation (including bauxite mining, alumina refining, aluminium smelting, energy generation), they need to address social and environment issues plans to local communities and governments. In order to assess the social and environmental impacts within different aluminium production countries, it seems that an approach can be adopted, through analysing and comparing sustainable development strategies generated by aluminium producers. In the context of productive capacity of aluminium moving to the Global South countries, China became the world's third largest producer in 1994, second in 1999 and first since the 2000s. The objective of this paper is to research the sustainability policies of a first group of Chinese aluminium companies - Chalco, Hongqio, Xinfia, State Power Investment Corp and East Hope Group Company Limited, and then compare them with a second group of international aluminium companies - Rusal, Rio Tinto Alcan, Emirates Global Aluminium, Alcoa and Norsk Hydro. We should look at the different constraints on their strategy-making process and the effectiveness of these strategies, and what actions the companies have taken in terms of waste discharge, land use and rehabilitation, people resettlement, cultural heritage and decommissioning plan. Finally, it may be interesting to ask if there are some policies in a more targeted and economically efficient way to reduce the social and environment impacts.

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Paper 2:

Pierre Lanthier, Université du Québec à Trois-Rivières, Canada

«Moving South», a new chapter: the Case of the Indian Aluminium Industry

Aluminium moved South at an early stage in India. It began in the 1940s, on the eve of the Independence, with companies such as Hindalco. It received a decisive impulse from the State during the 1960s and the 1980s, with the creation of companies such as Balco and Nalco. India benefits from vast reserves of bauxite and it was natural that with its Independence in 1947 aluminium would be considered as a leading industry. In 2020, India is the second largest producer of primary aluminium in the world. A significant quantity of this production is exported.

During the recent years, an important change occurred in the Indian Aluminium Industry: besides the traditional smelter industry emerged a strong transformation industry with companies like Sacheta Metals and Hind Aluminium Industries. Even if these companies favours exporting their products, they also participate to the developing local market, made possible with the emergence of a new middle class and major investment in the infrastructures. Local demand of aluminium is bound to increase.

For the aluminium producers, this constitutes a major challenge. More energy will indeed be needed and already they struggle with energy producers to obtain either electricity, highly disputed hydraulic sites, or coal to produce electricity. Needless to say that this represents an ecological issue, an issue the Government of India cannot ignore. Consequently, India faces a dilemma, Northern countries are familiar with. What strategies the companies will adopt to face this surge of the local demand or, should we say, this new chapter of moving South?

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Paper 3:

Hildete de Moraes Vodopives, Université Paris 1 Panthéon-Sorbonne , France

Economic growth and sustainability: Challenges of the setup of the aluminium industry Brazil

Reputed for its large territory and natural resources, Brazil struggled to overcome shortage in primary elements conditioning economic growth. The most relevant difficulties relate to capital access, lack of infrastructure and technology. From the discovery of large deposits of bauxite in the Amazon region, the Brazilian aluminium industry evolved into a value-added chain including a recycling activity. This article explores the different stages of this process, highlighting public and private sector, involvement and the challenges of international competitiveness.

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Paper 4:

Simon Lobach, Geneva Graduate Institute, Switzerland

Afterlives of aluminium: The case of Venezuela

Bauxite exploration has taken place in Venezuela since the 1940s, but it was mainly after Alusuisse discovered the «Los Pijiguaos» deposits in the Amazonian region of the country that a systematic attempt was made to set up the entire an entire aluminium processing chain in the country. Together with oil and steel, aluminium was one of the «base industries» upon which rested all plans for Venezuela's development through industrialization and import substitution. To power the aluminium industry in the newly set-up city of Ciudad Guayana, a series of hydroelectric dams were built that flooded large tracts of Amazonian rainforest.

Some literature exists on the emergence of the Venezuelan aluminium industry. Much less has been written on the how part of the question. How was this industry built from scratch in this least-known part of the country? How did the development plans regard and deal with the existing (indigenous) populations? How have the supply chains of the aluminium sector in the Venezuelan Amazon sped up the process of «integration» of this region in the «development» ideals of the country?

These questions are even more important given that aluminium production has effectively come to a halt in the political and economic crises of the post-Chávez era. Apparently, the proposed development model has not yielded the sustainable benefits that were anticipated, while the environmental impact of the episode are more severely than ever felt by indigenous and other populations of the Amazon.

Based on the available literature, archival research and interviews with former industry leaders, this paper looks back at the history of aluminium in Venezuela from an «afterlife» perspective: what socio-environmental legacies has the sector left behind?

1411-C01 on Friday, 25.08.2023, 14:15-15:45

Unitobler – F-121

More than human urban environments (H)

Organiser:

ESEH Programme Committee

Chair:

Kate Stevens, University of Waikato, New Zealand

Paper 1:

Matthew Holmes, University of Stavanger, Norway

Avian Architects: Urban Sparrows, Nest-Building, and Animal Minds

In the mid-nineteenth century, the house sparrow (*Passer domesticus*) was introduced to the United States to control insect populations. Scholars have shown how, within a few decades, a fierce debate erupted over the economic utility of sparrows and their impact on native birds. As the twentieth century approached, American cities were gradually emptied of domesticated animals and livestock, further expanding the human-animal divide. Yet for a brief period in the late-nineteenth and early-twentieth centuries, the observation of sparrow behaviour was an urban pastime. This paper argues that traits such as reason, persistence and craftsmanship were conferred onto sparrows by American urbanites. Praise for the ingenuity of sparrows generally revolved around their nest building, particularly when such structures overcame the challenges posed by urban infrastructure and technology. They were far less praiseworthy

when their nest-building caused electricity outages, or contaminated water supplies. Prior to the entry of Morgan's Canon into animal psychology, anecdotal accounts of animal behaviour were accepted as evidence of reasoning and intelligence. The case of sparrows in the United States, however, shows that the relationship between these anecdotes and their implications for animal minds was mediated by the technology and infrastructure of cities. Admirers of sparrows were not measuring the birds' mental capacity, but rather their ability to adapt to human habitations. Sparrows were only granted reasoning and ingenuity once they had demonstrated their ability to become domesticated.

Paper 2:
Mustafa Emir Küçük, Bogazici University, Turkey

Horses: Working Animals for the Constantinople Tramway Company

This paper aims to show the importance of animal labour in the large-scale economic and socio-cultural changes in nineteenth-century Istanbul by focusing on the horses of the Constantinople Tramway Company. The number of horses, donkeys, and mules dramatically increased in the capital city of the Ottoman Empire as a parallel to technological developments and modernization. Animals were working in different sectors in Istanbul: in transportation (horse-drawn trams and omnibuses), in municipal services (e.g., garbage collection and fire services), in construction sites, and carrying goods inside and between cities.

Even though in the nineteenth century, capital owners, municipalities, and scientists considered horses as «living machines» and commodities, horses as animals have their living conditions that affect everyday life and urban fabric. This paper will demonstrate the living and working conditions of horses in the city: their feeding, stables, working conditions, illnesses, and death. The trade of hay and barley for horses, the circumstances of horse stables and the employment of stablemen, the development of veterinary services and horse illnesses, specifically glanders, a very contagious disease among horses, and the burials of dead horses will be researched.

This paper will reveal how were human-animal relations organized in the daily life of nineteenth-century Istanbul. Not only the exploitation of horses but also the effects of horses on the urban fabric and social relations will be studied.

Paper 3:
Andrea Gaynor, University of Western Australia, Perth, Australia (V)

Wild cities: emotion and environment

It is a commonplace 21st century lament that urban dwellers have become «disconnected from nature». This is essentially a historical story about changing urban environments and patterns of human activity, but it is not well grounded in historical research. As programs of urban greening informed partly by this narrative proliferate, we need historical research to understand who has become disconnected from which nature, and the strengths and limitations of this «disconnection» story in accounting for relationships between people and living systems in cities over time.

In particular, the emotional dimensions of this story have been neglected. Much human dealing with the natural world depends on how people feel about nature: we are socially conditioned and thus bodily disposed toward particular emotions, such as love for particular kinds of nature and fear of others. We may feel deep anguish or, alternately, pleasurable satisfaction, when «natural» landscapes are transformed into housing or highways, and these feelings shape the politics of urbanisation. But we do not understand how communities of feeling around urban nature have emerged, or how the existence or absence of particular kinds of urban nature has enabled or foreclosed on different emotional practices. Given the important relationship between the natural world and human emotional expression and experience, combining approaches from the history of emotions and environmental history can deliver new understandings about

the role of changing urban nature in urban lives and politics. My paper explores this potential through a case study drawn from the city of Perth, Western Australia.

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Paper 4:

Dominik Kaim, Jagiellonian University Krakow, Poland

Wildland-urban interface as the arena of human-wildlife interactions in the Polish Carpathians

Wildland-urban interface (WUI) is an area, where settlements meet or intermingle with wildland vegetation. Currently, this is also an area of higher probability of human-wildlife interactions. We used two sets of historical forest and buildings layers and one contemporary topographic database to calculate long-term WUI changes over the territory of the Polish Carpathians (20 000 km²). We found that over the last 150 years, WUI increased from nearly 30% to 50% of the area. Since the Carpathians are also the area of the large carnivores' recovery, we compared the data on compensation claims due to the damages of brown bears, lynx and wolves and related it to historical and contemporary WUI maps. We found that WUI areas are very persistent over time and that a large portion of the damages happened in WUI. Especially damages done by the brown bears happened in villages surrounded by forest, while wolves' activity was rather related to the more remote agricultural areas, mainly pastures. Damages done by lynx were rather rare and of random nature. This work shows that the land use changes that started in the past may support the creation of a landscape, which will be suitable for more frequent human-wildlife interactions many years later, which indicates the importance of land use legacies.

1412-441 on Friday, 25.08.2023, 14:15-15:45

Unitobler – F-122

How do we become environmental historians?

Organiser:

Davide Martino, University of Cambridge, United Kingdom

Chair:

Isobel Akerman, University of Cambridge, United Kingdom

Davide Martino, University of Cambridge, United Kingdom

Presenters:

Greg Bankoff, Ateneo de Manila University, Philippines

Mathijs Boom, Utrecht University, The Netherlands

Petra J.E.M. van Dam, Vrije Universiteit Amsterdam, The Netherlands

Julia Fine, Stanford University, United States of America

Clare Hickman, Newcastle University, United Kingdom

Sverker Sörlin, KTH Stockholm, Sweden

Abstract:

When a new discipline gets started, its pioneers must by definition have been trained in other disciplines. Environmental history is no exception: early environmental historians came from fields such as economic history, historical geography, American history, or agricultural history. Environmental history courses can now be found at an increasing number of institutions, but many environmental historians will still have been trained in other sub-fields of history, anthropology, or the environmental sciences. So how do we become environmental historians? In this roundtable, each discussant will share three elements of their scholarly identity: a foundational text or moment, which first introduced them to environmental history or

made them realise they were environmental historians; a methodological lesson or tenet, which they endeavour to apply in their research; and a knotty challenge or problem, which they still find uncomfortable. Discussants will also reflect on the fruitful interactions between the field in which they were originally trained and environmental history, and on their hopes and ambitions for interdisciplinary connections and collaborations in the future. They will comment on the state of the academic job market in environmental history and the wider historical discipline. Contributions from the discussants will only get the conversation started: it is the roundtable's aim to fully include the audience, encouraging everyone to share some elements of their scholarly identity and their journey to environmental history. By characterising the identity of environmental historians as a constant «work in progress», this roundtable hopes to contribute to the definition of an open, inclusive discipline.

15:45-16:30

Mensa/Entrance Area UniS & Unitobler

Coffee Break

1500-400 on Friday, 25.08.2023, 16:30-18:00

UniS – S 003

Urban floodplains on the way to the «Fluvial Anthroposphere» – concept and case studies

Organiser:

Gerrit Jasper Schenk, Technical University of Darmstadt, Germany

Chair:

Lukas Werther, University of Tübingen, Germany

Abstract:

The panel session analyses a hotspot of anthropogenic changes in premodern times using examples of urban floodplains in Central Europe. Here influences from the upland river catchments converge with specific socio-ecological dynamics in the floodplain itself. They not only provide boundary conditions for emerging urban structures, but also play a decisive role in shaping the socio-natural setting of urban floodplains. The interaction of factors such as land use systems, water management (rafting, fishing), mining, energy production (mills) with the specific urban use of resources (supply and disposal, defence, transport) and socio-cultural constellations (institutions, rights, industry, cooperatives) leads - according to our hypothesis - to a distinctive fluvio-social metabolism for each urban floodplain. It should become apparent that path dependencies and breaks in development distinguish the urban from the rural floodplain from a socio-ecological perspective.

First, the conceptual and methodological framework of the «fluvial anthroposphere» is presented, as well as some hypotheses on its development in late medieval and early modern Central Europe (Schenk). This is followed by a contribution from an archaeological perspective, which uses the example of southern German cities to complement the methods and results of the analysis of material structures and material flows with the socio-cultural dynamics of urban floodplain areas (Nießen). Finally, an analysis shows which hydraulic structures can be historically proven using the example of the River Sarine in Fribourg (Switzerland) and its floodplain modifications (Longoni).

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Paper 1:

Gerrit Jasper Schenk, Technical University of Darmstadt, Germany

The «Fluvial Anthroposphere» – a new concept for floodplain dynamics

The conceptually and methodologically interdisciplinary contribution explains the concept of the «fluvial anthroposphere», which connects the contributions of the panel. Placed in the context of the global anthropocene debate, the concept describes the specific development of riverine floodplains into a socio-natural site significantly shaped by humans and their activities. For this purpose, it will be discussed which criteria can be used to determine the anthropogenic influence. Which factors, which amplitudes and frequencies of changes play a role, which relations and threshold values can be used for this? In addition to natural and social control variables such as heavy metal input or biodiversity, social norms and cognitive patterns, there are questions about their quantitative, semi-quantitative and qualitative scrutiny. As a model, it will be outlined how temporal and spatial overlaps and condensations of changes can be grasped. How can the interference of individual factors, amplification, and cascade effects or, conversely, moderating control loops be captured? What are the limits of analysing pre-modern conditions? Furthermore, a tentative sketch of the temporal dynamics of pre-modern floodplains on the way to the fluvial anthroposphere with respect the socio-natural boundary conditions will be sketched based on first findings.

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Paper 2:

Iris Nießen, University of Jena, Germany

Development of Urban Floodplains – Sources of Urban Core Archaeology in Southern Germany

The use of urban floodplains can be traced with archaeological sources from the early Middle Ages until the areas were completely urbanized in modern times. The generally suburban areas played a decisive role in the urbanisation of Central Europe. They provided infrastructural access to the river for harbour and trade as well as hydroelectric power for mills. In terms of social topography, poorer population groups settled at the riverside in industrial quarters, which were usually incorporated into the city in the late Middle Ages and acted as motors of urban development. In this context, archaeological sources not only offer insights into the genesis of the urban quarters along the river and the material design of river and water structures, but also open up a soil archive, the chronological and historical contextualization of which is the precondition for new methodological approaches. By means of case studies (e.g. Regensburg, Ulm, Esslingen) it will be shown which (geo-)archaeological methods can be used to record the material changes in the floodplain. What new view does this provide of the dynamics of anthropogenic overprinting of the urban floodplain and its role in the general urbanistic development of cities along rivers?

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Paper 3:

Raphael Longoni, Technical University of Darmstadt, Germany

From fascine works to river walls – material developments in the medieval floodplain colonization of Fribourg (Switzerland)

The princely foundation of the market settlement of Fribourg, built on an elevated site from 1157, immediately caused the colonization of the lower lying banks of the Sarine River, as archaeological remains on the alluvial plain of the Motta and the Au peninsula indicate. In 1526, when master builder Ulrich Ruffiner and his colleagues had masoned the pillars of the Bern Bridge, the river in the city was for the most part reverted and modified by stream works made up of wood and stone. What had happened in the

meantime and how did it change the urban floodplain? This paper is focused on the development of the hydraulic landscape at the Sarine River which appears in written sources from 1253 onward. The measures of stream regulation for industrial use and flood protection, which are documented in financial accounts and laws from the 15th century, were part of an increasing anthropogenic influence on the floodplain hydrology and ecology. According to the scope of this panel, the intensity and reach of hydraulic interventions are explored – with special consideration of changes in physical components, such as building materials, technologies, and innovations.

1501-C17 on Friday, 25.08.2023, 16:30-18:00

UniS – A 022

Politics and environments (H)

Organiser:

ESEH Programme Committee

Chair:

Roberta Biasillo, Utrecht University, The Netherlands

Paper 1:

Leo Chu, University of Cambridge, United Kingdom

Security through Diversity: Multiple Cropping Research in Upland Southeast Asia, 1964–1982

This paper rethinks the idea of diversity in Upland Southeast Asia through the gaze of agricultural scientists. During the 1960s, as the American government and private foundations, in a program later known as the «Green Revolution», funded crop research in the Global South as part of its anti-communist strategy, a vision emerged to complement the breeding of high-yielding variety with diversified cropping techniques. The term «multiple cropping» was subsequently adopted by scientists to study the potential of intercropping and crop rotation in Southeast Asia, especially the upland regions where environmental and economic conditions tended to make imported seeds less productive. This paper focuses on the multiple cropping project in the highlands of Northern Thailand. In the early-1970s, the region was a main producer of opium poppy, a hub of rural activism, and a territory contested by minority groups, communist militias, and remnants of the Nationalist Chinese forces backed by Taiwan. To ensure its geopolitical security, the Thai state adopted agricultural development as a solution to military and land conflicts, and the rhetoric of multiple cropping became a crucial strategy in its opium replacement program. While scientists from Thailand, Taiwan, and Euro-America gained the opportunity to pursue agricultural diversification, with the decline of peasant movements by 1980, the government ended up enforcing a new monoculture based on maize production. This paper delineates the tension between diversity and security in Cold War geopolitics, and how the apolitical developmentalism of Green Revolution influenced the rise of sustainable development and the field of agroecology.

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Paper 2:

Libardo Andrés Gómez-Estrada, University of Toronto, Canada (V)

War on the Commons. Fluvial Geographies and Development Policies in the Andean Region

The Cold War ethos laid the seeds of a covert war against nature in Latin America. Both formal dictatorships and informal democracies agreed to devote their resources, policies, and efforts to disrupting

local topographies. From 1958 to 1974, the disposal of subsistence peasants and densely populated areas manufactured a new visual nation's landscape by establishing terrestrial urban citizenship unattached to their local environment. This ecological war produced astonishing water landscapes of monuments and structures across diverse geographies and spaces that, in turn, displaced and violently reshaped the communities of racialized peoples. Water and the adjacent residents to hydric sites were among the primary victims of such ventures due to the building of hydroelectric dams, industrial mono-crop plantations, and the spread of national roads.

This paper explores how developmental projects in Colombia encouraged the material and symbolic dispossession of the amphibian populations to drain the territories while providing the required materials for the alleged economic growth. Although in plain sight, amphibian societies are not usually given enough space in environmental historiography. Narratively, the role of capital, empires, and development projects is often stressed over the labour performed by water, thereby overlooking the fact that rivers, lagoons, watersheds, springs, and rains are constantly at work. Rivers are hard workers; they provide essential nutrients to fish, constitute pathways and companions for fungi, plants, and forests and are critical sources of caloric energy. The river's visual fluidity and material movement inform citizens' imaginaries, vocabularies, and environmental notions about their communities beyond administrative frontiers.

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Paper 3:

Phia Steyn, University of Stirling, United Kingdom

The environmental impact of war and conflict in post-colonial Africa: a historiographical survey of English language publications

While war and conflict have plagued many African states post-independence, including armed independence struggles that morphed into civil wars post independence, few environmental histories have been produced to date that considers the environmental impact of wars and conflicts in independent Africa. Much of the existing literature that covers aspects of the environmental impact of war and conflict in Africa, such as the comprehensive studies by die Biodiversity Support Programmes (1989-2001), have been produced by natural scientists and are often in particular concerned with the impact of conflict on biodiversity and conservation efforts, as well as dealing with the legacy of landmines and demining efforts after peace settlements. This paper aims assess the extant English language historiography on the environmental impact of war and conflict in post-colonial Africa in order to identify the key focus areas, trends, arguments and corresponding gaps in the literature. Fundamentally the paper seeks to establish the current state of play in English for this subfield in African environmental history/military environmental history, which in turn can feed into the identification and planning of future research projects on African military environmental history.

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Paper 4:

Kati Lindström, KTH Royal Institute of Technology Stockholm, Sweden

Lize-Marié van der Watt, KTH Royal Institute of Technology Stockholm, Sweden

Who saved Antarctica? On the Heroic Era of Environmental NGOs in the Antarctic politics

There is a fierce competition for the honour of having saved the Antarctic environment from mineral exploitation. Both Australia and France have made repeated public claims about their pivotal role in the process, but also the UK and Chilean archives include documents with similar statements. In contrast, this presentation will discuss the role of the environmental NGOs, particularly Greenpeace and ASOC, in the Antarctic politics of the 1970s and 1980s.

Due to the fact that Antarctic history is often written with a geopolitical emphasis, based on the archives of

the dominant states (the UK, US, Australia, New Zealand), whereas the ENGOs were for the most part not even allowed into the official negotiation rooms, their activities are not well covered in literature. However, the ASOC and Greenpeace archives demonstrate that their campaigns were both scientifically and politically very intricate, including a comprehensive Antarctic science program and an Antarctic base, lobbying at the Antarctic Treaty Consultative Meetings and of the government delegation members, infiltration into state delegations, lobbying of governments during the United Nations Antarctica debate and last, but not least, massive public media campaign and direct actions.

We argue that while none of the actors could have alone shifted the balance in favour of environmental protection, the environmental NGOs played a much bigger role in the process of reaching the Protocol on Environmental Protection to the Antarctic Treaty and a ban on resource extraction than hitherto acknowledged.

1502-323 on Friday, 25.08.2023, 16:30-18:00

UniS – A 122

Meat Matters: Social, Cultural, Economic, and Environmental Motivations for Including and Excluding Meat in 20th-century Diets

Organiser:

Efrat Gilad, University of Bern, Switzerland

Chair:

Yuan Julian Chen, Duke University, USA

Abstract:

Through livestock emissions and deforestation, global meat consumption is the biggest dietary impactor exacerbating climate change. Recent initiatives such as the UN Climate-Change Report urge individuals to «eat less meat». Yet globally, meat consumption is on the rise and meat-avoidance remains a controversial topic.

Ambiguity regarding the place of meat in human diets is not new. During the 20th century, state modernization projects often included efforts to reshape national diets driven by the idea that a strong, healthy, and wealthy nation must eat meat. Simultaneously, growing concerns over slaughter, sanitation, spoilage, disease, and environmental damage drove some actors to regulate meat or to promote entirely vegetarian diets. These differing dietary directions were promoted concurrently within the same society or used as a touchstone to distinguish between societies.

By offering historical perspectives on both eating meat and denouncing it, this panel will illustrate the shifting and conflicting attitudes to meat consumption over the long 20th century, focusing on understudied contexts: the late Russian Empire, Japan following the Meiji Restoration, the Jewish settlement in British Mandate Palestine, and contemporary Latin America.

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Paper 1:

Julia Malitska, Södertörn University, Sweden

«It is not a deterioration of the nutrition of the masses that we need, but its improvement»: Scientific Knowledge, Life Reform and the «Meat Question» in the Late Russian Empire, 1870s – 1917

The late Russian empire witnessed the emergence of new sciences of nutrition and veterinary,

industrialization of meat slaughter, as well as changing understanding of food. Plant protein made the lion's share of people's diet, yet anxieties about meat, its quality and shortage had been accelerating, so did livestock commodification. From the early 20th century, these anxieties turned into a «meat question». The period also reflected the growing awareness of close interdependence of human and animal health, as well as existential discussions about human-animal interrelationships. So, what place had meat eating occupied in the enduring discussions and growing concerns about human/public health, animal welfare, «rational nutrition», food problem, economy, and ecology?

My paper examines the multiplicity of discourses about benefits or dangers of dietary meat, in their evolution and broader implications in the context of the late Russian empire. The advocates and critics (physicians and veterinarians, vegetarians and life reformers, public health experts, meat producers, social planners etc.) of meat eating encompassed a broad and shifting range of groups and individuals with allies in governmental circles, media, and sciences. As a result of the diversity of approaches and understandings, as well as actors and parties, vegetarian diet, mixed diet, high animal protein diet had been publicly promoted. The study is based on a variety of primary sources, many of which will be introduced into scholarly use for the first time.

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Paper 2:

Tatsuya Mitsuda, Keio University, Japan

Questioning Meat: Anxieties about Meat Production and Consumption in Modernizing Japan

Following the Meiji Restoration (1868), Japan not only believed it had to modernize its military and economy to compete internationally, but it also felt it had to radically reform the predominantly plant-based indigenous diet, which was considered nutritionally inadequate for a country with a serious interest in becoming a strong and wealthy nation. Despite broad consensus about its health benefits, attempts to «meatify» the country gave rise to significant disquiet and resistance to the production and consumption of meat. Part of the problem with the «meat question» was related to religion: as a Buddhist country that had previously renounced beef eating as defiling, the rural population had doubts about embracing a practice that had long been taboo. In a different vein, nationalists expressed doubts about the threat meat posed to the predominantly plant-based traditional diet, advocating a Japanese version of vegetarianism that was touted as superior and more natural than the Western one. Even those who were promoters of meat eating were concerned about how meat was produced, transported, and sold. For the state, worries were expressed about appropriate models for breeding and rearing enough livestock in a country that did not have recourse to the kind of natural and environmental resources conducive to producing cheap meat. Fears of spoilage and disease were a constant undercurrent in commercial and popular discourse, which shaped ways in which livestock would be carried on the hoof and not on the hook, despite the costs they incurred and the risks they presented for spreading disease. Meat merchants who engaged with the trade also fretted over foreign competition, as cheap meat from East Asia and elsewhere threatened their businesses, asserting their right to maintain a system in which livestock was slaughtered near places of consumption. Focusing on the first half of the twentieth century, this paper analyzes how concerns about meat played out.

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Paper 3:

Efrat Gilad, University of Bern, Switzerland

Meat in the Heat: Climate & Diet in the Zionist Settler Project in British Mandate Palestine (1920s-1940s)

«Why [is] so much meat consumed in such a hot country?» probed Dr. Erne Meyer in her 1936 manual *How to Cook in Palestine*. Today, when «meat» and «heat» are mentioned together we often think of climate

change. But in the 1930s, other ideas about climate and diet prevailed. In *How to Cook in Palestine*, Meyer tried to influence European Jewish settlers to forgo nutritional habits that she deemed incompatible with Palestine's warm climate. Chief among such habits was meat consumption.

For the experts who oversaw Jewish settlement planning in British Mandate Palestine (1917-1947) – including nutritionists, agronomists, and economists – meat consumption epitomized the challenges Jewish settlers faced in adjusting to their new land. Digesting meat, the experts argued, produced heat in the body. In Europe, this was not concerning, but in Palestine, where the climate was «sub-tropical», meat consumption was understood as harmful to settlers' acclimatization. Supposedly, eating meat overheated European bodies already struggling to cope with the changing climatic circumstances imposed by their move from Europe to Palestine.

This presentation will explore how ideas about diet and climate were incorporated into Zionist settlement planning in Palestine. It will trace perceptions of climate and diet especially to the field of «tropical medicine» and other imperial interventions into colonial diets. Based on varied sources – from cookbooks to colonial reports – the presentation will illustrate how nutritional advice for European Jewish settlers in Palestine reflected colonial ideas about environment, climate, and diet in the first half of the 20th century.

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Paper 4:

Melina Teubner, University of Bern, Switzerland

Poultry consumption in Brazil and Argentina – the integration of chicken meat into the consumption habits of traditionally meat-eating nations

The fires in the Amazon Rainforest in 2019 have drawn worldwide attention to the connection between meat consumption and environmental degradation. In Switzerland, meat consumption is increasingly the subject of debate. Brazil and Argentina have long been one of the world's leading exporters of beef. However, the highest growth rates are no longer in the beef trade, but in poultry products. In recent decades, Brazil has become one of the global players in this business and for some years now has been home to the world's largest meat processing group (JBS Foods), which is represented in 15 other countries and slaughters up to 14 million poultry animals every day. Chicken meat from Brazil can therefore be found almost everywhere in the world – also in Switzerland. Most of its production (about 70%) is destined for the domestic market. This is the result of increasing demand from growing urban consumer societies in the region for chicken products since the 1990s. Against the backdrop of these developments, the paper analyses how industrially produced chicken has been increasingly integrated into the consumption habits of urban populations of traditionally meat-eating nations. The project analyses the commodity chicken from a critical nutritional and consumption perspective. In addition, it looks at the representation of the poultry industry in distinction to the meat industry, which is considered even more environment-damaging and examines critical debates in Brazil and Argentina on the question of meat consumption.

1503-439 on Friday, 25.08.2023, 16:30-18:00

UniS – A-126

Poisoning mountain and plains. – Pesticide practices and prescriptive technologies in hybrid landscapes 1930 – 2000.

Organiser:

May-Britt Ohman Nielsen, University of Agder, Norway

Chair:

Victoria Østerberg, University of Agder, Norway

Abstract:

Throughout history, humans have sought to domesticate different types of landscapes to make them more economically profitable or aesthetically pleasing. These hybrid landscapes are historically designed and developed. They encompass different blends of nature and culture. Among the most iconic landscapes are the forests, the field, and the garden.

In the 20th century the cultural ideas guiding what was considered a profitable or pleasing forest, field or garden were rapidly changing, and so were the means to achieve these shifting ideals. A major factor in the 20th century was the adoptions of different types of poisons for this purpose, poisons aimed at eradicating different types of predators, nuisance birds, insects, plants, and fungi. The use of poisons and pesticides were sometimes specifically tailored to the actual, or imagined, challenges of managing a landscape with it's specific species and challenges. Yet, we can observe many similarities in the adoption of pesticides across different landscapes, in forestry, agriculture and gardening as well as in wildlife management.

This session will present and discuss changing pesticide practices, prescriptive technologies, and professional mindsets in the management of forests, fields, and gardens. The cases are Scandinavian, Norway and Sweden, but these poisonous chemicals, and the mindsets involved, can be found in the heritage of many countries and local communities all over world. What were their cultural and environmental legacies?

The presenters are part of the interdisciplinary and international environmental history research project Deadly Dreams – The cultural history of poison 1850-2020.

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Paper 1:

May-Britt Ohman Nielsen, University of Agder, Norway

Poisoning hills and trees – Pesticides spraying with helicopters in forestry 1950-1997.

Ideals and ambitions concerning «modern» forestry had significant impact on landscapes across the world, and on mountainous regions and plains in Europe, in the 20th century. Between 1950 and 2000 a multitude of toxic chemicals were introduced in commercial forestry, and put to use to transform native and traditional, multi-species forest, into effective homogenous timber plantations. In mountainous and hilly landscapes, like the Norwegian rural landscape, this was particularly challenging. But the transformation also had significant impact and can still be observed.

The paper will present the researchers, the professionals, the pesticides, and the practices that were involved in the helicopter spraying of Norwegian forests. It will show how forest plants, as individuals and species, became subject to systematic poisoning, and the impact of this on landscapes and ecosystems, public opinion and politics.

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Paper 2:

Anne Jorunn Frøyen, Jaermuseet, Norway

Poisoning planes and sheep.

To avoid ticks, lice or other insects, livestock has been sprayed with insecticides or dipped in poisonous liquids to clean their bodies. This practice did not only poison the animals, the people preparing the toxic blends and using them were also affected. For this purpose, pesticides were sprayed both indoor and outdoor. The substances were persistent.

This paper focus on dipping of sheep in a Norwegian context, where this practice started in early 20th century. When several thousand sheep were washed in spring, many dipping stations were needed.

These sites became polluted spots on the plains. The paper will examine the introduction of this practice in the largest plainlands in Norway, Jæren, and how it evolved in the years that followed. It will also discuss the perceptions of the poisons, their effect on the sheep, on the insects, and on the landscape.

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Paper 3:

Anton Sveding, University of Agder, Norway

Poisoning plantations and fruit. Pesticide spraying in horticulture and fruit farming.

The development of professional fruit farming in the middle of the 20th century had significant implications on landscapes, both hillsides and plains. The fruit plantation was closely linked with the development of modern horticulture and a growing group of educated professional gardeners. Fruit farming was a frontier for the adoption of a multitude of pesticides. These landscapes are probably among the most toxic sites in the world. However, this legacy has been both tacit and contested.

This paper examines how pesticides were pushed onto fruit farmers and professional gardeners, and how this served to shape landscapes and ecosystems in the plains of Sweden. Pesticides practices were promoted by plant protection experts and commercial pesticide companies and advocated through the associations of professional and amateur gardeners.

About the presentations thematic connection

These researchers are working together in a joint project with different sub-studies. Thus, this session will have a high degree of coherence, as well as trans-geographic applicability. The themes of each paper will be of high relevance for researchers and scholars who study hybrid landscapes, forests, fields, plants, and domestic animals across different national and regional localities. Issues of seasonality, altitude and toxic heritage will be addressed.

Studies of Norwegian and Swedish landscapes and landscapes and pesticide practices have many comparative elements with studies of Swiss landscapes.

1504-C20 on Friday, 25.08.2023, 16:30-18:00

Unitobler – F 005

Mountains as retreat, mountains as bulwarks

Organiser:

ESEH Programme Committee

Chair:

Marco Armiero, Universitat Autonoma de Barcelona, Spain

Paper 1:

Matteo Proto, University of Bologna, Italy

Valerio Salvini, University of Bologna, Italy

Italian geographies of mountain chains: empowering the nation along the Alpine watershed

Since the last decades of the 19th century Italian geographers developed a powerful geographical paradigm which proved high significance, on the one hand, in the establishment of a modern geographical discourse for scientific inquiry and education, on the other hand, in defining the Italian state and its political ambitions during the WWI and in the interwar period.

These geographical theories were strongly related with mountain research, specifically with inquiries about morphology, climate, and biogeography also in relation with human culture. At this time several European geographers were promoting investigations on the Alps aimed at identifying a geographical partition of the mountain chain, also with political goals. Italian geographers adopted and re-elaborated geographical theories developed at the international level especially in German language geography by scholars such as Friedrich Ratzel, Eduard Richter, and Albrecht Penk.

What resulted was a supposed neutral representation of the relation between humans and the environment, well exemplified by the concept of geographical border developed by Italian geographers at the beginning to the 20th century in order to fix Italy's political border on the alpine watershed. Promoted in the society on the eve of the WWI, the conception of geographical border played an important role in determining Italian claims at the Paris Peace Conference and later it supported the nationalist and imperialist politics in the fascist period.

This paper aims at discussing the relation between geographical investigations on the Alps and their partition and nation building processes in the construction of the European political space.

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Paper 2:

Geraint J. Morgan, University of Oxford, United Kingdom

Uplands, Wild Spaces and Safety during the Welsh «Age of Conquest» (c. 1066-1283)

Between the Norman conquest of England and the finalisation of the Edwardian conquest of Wales (c.1066-1283), Wales experienced repeated violent conquests and rebellions. In my paper I will use historiography and hagiography (saint's lives) from the period to analyse readings of upland areas in relation to safety. I will firstly consider the discursive and material construction of Welsh wild spaces as safe from conquest, before exploring how hagiographical literature imagined the safety of wild spaces whilst constructing the 'Age of Saints' centuries prior.

My paper will respond to James C. Scott's work on Zomias and the creation of state resistant spaces, whilst recognising the difficulty of application to the high medieval Welsh context. The diverse political perspectives of these sources (Welsh, Anglo-Norman and Marcher) give different readings of Welsh upland environments in relation to different positionalities of (Anglo-Norman) governance. It often claimed that medieval people perceived upland and mountain environments as full of dangers, but the evidence from Wales suggests more complex readings. Retreat to wild spaces represented «placing their trust, ... in the Lord of Heaven» but also involved the «weakest» using the «strongest and wildest places they had» for their defence. Hagiographical literature gives another perspective regarding safety. Uplands exist in these texts both as a source of raiders on the «white acres» of male saints in «prosperous valleys» and an appropriate destination as «mountain solitudes» for female saints.

Analysing these constructions of uplands reveals both environmental perception and practice in response to an 'age of conquest'.

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Paper 3:

Tilak Tewari, Victoria University of Wellington, New Zealand

Hill Stations in the British Empire: A Comparative and Environmental History (1820s-1920s)

The present paper examines high altitude settlements, commonly known as hill stations, established under British colonial rule in the nineteenth and twentieth centuries in South and Southeast Asia. The driving forces behind the establishment of hill stations were at least two-fold – environmental health anxieties and

safety from violence in the plains. White constitutions could not withstand the shockingly hot environments in the colonies and often fell victim to disease and malaise in the tropical plains. As a result, extensive research was carried out by medical practitioners in the colonies on the therapeutic effect of higher climes on European bodies. High altitude regions were earmarked for the establishment of sanitaria and convalescent depots which, by the 1850s, became crucial sites of imperial governance and administration. Shimla became the summer capital of the British Empire in India and the popularity of hill stations rose dramatically. From the 1820s to the early 1900s, 96 hill stations were thriving in the Indian subcontinent alone, and a sizeable number in Sri Lanka, British Malaya, Indochina, and the Netherlands Indies (under Dutch control).

In the larger context of global environmental history that explores eco-cultural networks across discrete regions and unveils crucial aspects of ecological imperialism, this study will focus on the colonial dichotomy between the «hills» and the «plains» in terms of racial segregation, notions of British superiority, and spatial hierarchies, all of which operated as designs of imperial domination.

1505-C23 on Friday, 25.08.2023, 16:30-18:00

Unitobler – F 013

Environmental heritage, museums, and education

Organiser:

ESEH Programme Committee

Chair:

Martin Knoll, University of Salzburg, Austria

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Paper 1:

Marie-Theres Fojuth, University of Stavanger, Norway

Mountain Museums: Curating Nature, Culture and Climate Beyond the Tree Line

In recent years, we have experienced that museums have turned their attention to environmental issues and have defined their societal role as actors in the green transition. Museums have incorporated the Sustainable Development Goals both in their own practice and as a topic in exhibitions and school programs. Slogans and titles such as «#greenmuseum», @Musuem4climate, @MuseumsforFuture, @Climateheritage, Museums, and climate change network, etc. testify to a green transition in the sector. Mountain museums express a special responsibility in this context. However, the work of these museums has so far hardly been examined, and many visitors contrasts with a lack of academic discussion. It is of particular interest that many people experience an intimate connection and longing for «the mountains», and fear of missing this unique alpine environment. It is such feelings that can lead to the will to change and activism and can therefore be critical to solving the environmental crisis. This paper investigates how museums specialized in alpine landscapes curate the environmental challenges of today. The focus will be on two case studies: Klimaparken 2469 (Lom, Norway), and Haus der Berge (Berchtesgaden, Germany). The paper studies how these museums meet their visitors with their different expectations and feelings, what stories the museums tell, and how they curate natural and cultural heritage. Combining the fields of environmental history, museology, and history didactics, the paper is a contribution to the public environmental history of the mountains.

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Paper 2:

Marko Mikael Marila, Linköping University, Sweden

Heritage ecologies and contemporary art

In recent years, terms like biocultural heritage, nature cultural heritage, and heritage ecology have replaced cultural heritage as the core concept in critical heritage studies, a tactic that aims to highlight the entanglement of natural and cultural heritage communities and heritagization processes. The demand to think critically around and beyond the binaries of natural and cultural heritage has also posed new methodological challenges. For example, how do we rethink knowledge production in the context of heritage from a non-anthropocentric standpoint. Increasingly, the relevance of contemporary art practice has come to offer a way forward in thinking the ambivalences and in-betweennesses of natural and cultural heritage. Drawing from my own oeuvre, I present two case studies that combine critical heritage studies with contemporary art practice. The first one is a somatic experiment that took place at two WW2 PoW camp sites in the Finnish Lapland. The other one is a site-specific art installation at a 19th-century cement mine in Rosendale, NY. With both cases, I aim to highlight contemporary art practice as a form of knowledge production in historical understanding.

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Paper 3:

Marie Stéphanie Florine Dubosson, Haute Ecole Pédagogique Vaud, Lausanne, Switzerland

Teaching environmental history at schools: example of the canton de Vaud (Switzerland)

Teaching environmental history is increasingly becoming an important issue. How can we show teachers who are not trained in this academic field the current issues of sustainability as well as environmental history, so that they can pass them on to their students?

We also want to show the difficulty of working on didactics in environmental history, as the field is hardly developed in the French-speaking world.

Sequences, which we are going to show, are being written to answer these questions for teachers in the canton of Vaud (Switzerland). We will in particular show the one linked to the creation of the Swiss National Park (1914). Various themes will be addressed, such as the beginnings of the creation of the park, its instigators, the reintroduction of the ibex and the human intervention with its consequences on the environment in the canton of Graubünden (Switzerland).

These teaching sequences were specifically commissioned by the canton of Vaud. The interest of this state request underlines the importance of environmental history in the teaching of obligatory schooling.

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Paper 4:

Finn Arne Jørgensen, University of Stavanger, Norway

Rephotography as environmental history method

This paper explores how environmental historians can use rephotography as a method in research and outreach. I will combine an overview of the field with analysis of cases relevant to environmental history, followed by practically grounded reflections of how we can use rephotography in our practices as scholars.

While rephotography as a term encapsulates a wide range of practices through many fields, including environmental sciences and arts, I will focus on two main approaches to rephotography. The first is the creation of a time-series of images of particular locations through photographing the same scene at different times. A very common motif in such series of images is the melting glacier, where rephotography helps create a sense of loss and urgency. Viewers can see the glacier disappearing before their eyes, as the glacial passage of time speeds up. The second approach is one where the photographer superimposes a historical photograph on top of a newer scene, either by editing a photo into another or by holding a physical printout up against a landscape with one hand and taking the photo with the other.

In either case rephotography provides us with a way to directly observe change in landscapes over time and to make slow environmental change concrete and comprehensible. The paper will argue that environmental historians can use rephotography to stimulate to reflection over our ideas of baselines.

1506-175 on Friday, 25.08.2023, 16:30-18:00

Unitobler – F 021

Mountains/plains interactions in early modern Alps: the systems of floatation

Organiser:

Katia Occhi, Fondazione Bruno Kessler-ISIG Trento, Italy

Chair:

Katia Occhi, Fondazione Bruno Kessler-ISIG Trento, Italy

Abstract:

The panel explores the interconnections between mountain and plain, focusing mainly on transporting timber, the first energy source of the pre-industrial era. Before the rail transport and the expansion of the timber frontier to north-eastern Europe, the Alps were one of the most flourishing supply basins for centuries, thanks to the wide availability of the forest and a complex network of river routes that connected them with the exchange centres in the plain. Starting from the concept of infrastructure, considered as a material installation for transport and communications but also as a social and cultural structure, the panel wishes to examine the impact of floatation, both in free form and by rafts, on the socio-ecological system of the rural areas affected by these trades. The case studies of the Republic of Venice and the Habsburg Empire, Lombardy and Grisons want to examine the timing and the modalities of diffusion of the systems on the alpine streams (stue and serre, bridge locks) and on the navigable watercourses (warehouses, places of preparation of the rafts and river ports). The panel would like to answer in particular the following questions: what were the environmental changes caused by the construction of these technical systems? Does the timing of construction correspond to the assertion of territorial power in the areas of exploitation? What were the reactions of rural communities to the transformation of the landscape? And what roles did they play in the management of these structures? The technical skills gained to construct the infrastructure for floatation gave rise to forms of cultural and technological transfer between one area and another.

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Paper 1:

Joschka Meier, University of Bern, Switzerland

Dams, Disasters, and Disputes: The Management of Rivers and Associated Infrastructure by Rural Communities in the Alps during the Late Middle Ages

Water was a key resource for having a thriving economy in the Alps of the Middle Ages. Livestock on alpine pastures needed a steady supply of water, streams powered mills and rivers offered a cheaper and often safer mode of transportation downstream. But managing water was no easy task, be it because of conflicts of interests between groups or the nature of alpine water currents themselves, which could be volatile and dangerous.

This paper will explore how rural alpine communities coped with the challenges posed by water and its management. The focus lies on the Rhine in Grisons and nearby areas from 1450 to 1600, centred on the role and agency of local actors. With this approach this paper contributes a view from «the other side» in the context of this panel, by investigating how the daily lives of people dwelling next to alpine currents were shaped by rivers and how local groups managed the usage of waterways, which included the

production and transportation of lumber.

Which countermeasures against flooding were employed? How were bridges (re-)built and maintained, in the face of fluctuating water levels or the threat posed by log driving down the river? What disputes regarding the use of water, waterways and associated infrastructure emerged and how were they settled?

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Paper 2:

Agnese Visconti, University of Milan, Italy

Investigations into floatation in Lombardy between the 18th and 19th centuries

Through the analysis of documents preserved in Milan's archives and the study of printed texts, the paper aims to investigate the transportation technique of floatation on Lombard rivers, and more specifically into the use of this technique on rivers located between the forests of Upper Lombardy and Milan between the last decades of the 18th century and the first decades of the 19th century in order to understand its validity and extent.

The documents found so far do not seem to show that the floatation of timber from the mountain forests to the Lombardy capital was, unlike in other parts of the Peninsula or on the great waterways of Europe, an important transport technique. Floatation was still in use in the early decades of the 19th century in Valtellina on the upper part of the Adda river, in whose waters loose logs were pushed downstream. But as soon as the river became navigable, the logs were loaded onto boats, not tied into rafts. Nor is the situation different on the Ticino river. One hypothesis of this choice could be that the city was reached by passing for a long distance (about 60 km) on the Navigli: narrow canals with a high coefficient of artificiality on which the passage of rafts would have been ruinous.

Finally, the position of the enlightened Austrian government, which had proposed the construction of roads in order to bring the forests closer to the plains, while it had never mentioned floatation, will be examined in depth.

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Paper 3:

Claudio Lorenzini, Laboratorio di Storia delle Alpi Mendrisio, Switzerland

Katia Occhi, Fondazione Bruno Kessler-ISIG Trento, Italy

Wood Supplies and Waterways in the Eastern Alps during the Early Modern Period: the Role of Floatation Revised

Timber is an asset with which the links between mountains and plains have intertwined over time. The descent of the trunks corresponded to the ascent of goods of which the mountains were deprived, such as wheat and wine.

The stages of development of the timber trade as well as consumption were determined by overcoming the constraints that the transport system presented. The floatation has been the more effective solution adopted in order to contain the costs and the times of the transports.

In recent decades, several studies have focused on techniques and ways of adapting the flow of water as a means of transporting wood. Many research paths have emerged that have involved legal, environmental, technical, economic, and social aspects. The floatation has been considered as an example of envirotechnical system.

The eastern Alpine area is one of the most important production areas in northern Italy. During the modern age in this area there was an expansion of production driven by the growth of consumption, not only in the city of Venice but throughout the Venetian mainland and in the Mediterranean basin. This widening of the area of consumption has corresponded to a further ascent of the Alpine valleys looking for wood in places increasingly difficult to reach. Without recourse to water and floating, these resources

would not have been exploited.

The aim of the paper is to describe and date this process of expansion through the technical characteristics of timber floating during the modern age.

1507-266 on Friday, 25.08.2023, 16:30-18:00

Unitobler – F 022

Placing and Displacing Nuclear Power: Exploring the Socio-Ecological Entanglements of Nuclear Facilities' Afterlives

Organiser:

Davide Orsini, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

Chair:

Anna Storm, Linköping University, Sweden

Abstract:

Contemporary debates on the green energy transition include nuclear energy as a climate-friendly alternative to carbon-emitting technologies. Nuclear energy's «green» potential, however, is challenged when considering the back end of its productive life: decommissioning and waste disposal. While countries like India, China, and Korea, for example, are reinforcing their investments in nuclear technology, both the US and most European countries face the challenge of managing the afterlives of nuclear facilities built since the 1950s. Decommissioning and disposal of radioactive waste from obsolete nuclear facilities are deep, transformative socio-ecological processes. Not only these activities cause visible spatial and ecological alterations through the production, transportation, and treatment of waste, and the discharge of decontamination by-products into the environment, but also (re-)shape the meaning of places and their social dynamics. The papers assembled in this panel address different aspects of nuclear decommissioning processes to explore their temporary and permanent environmental implications. What does it mean to achieve a «brown» or «green field» status for a nuclear site, and what uses can be made of it after decommissioning? How does the international market of decommissioning services (dismantling, decontamination, transport, storage, and disposal) shape and configure cross-regional cooperation and geographies of power connected to risk distribution? Offering insights into the historical and contemporary challenges of decommissioning practices in Italy, Germany, the UK, and Scandinavia, this panel seeks to recentre the debate over nuclear energy's future and socio-environmental entanglements.

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Paper 1:

Melina Antonia Buns, University of Stavanger, Norway

Transporting waste, transforming natures: how nuclear waste treatment challenges the boundaries of (non-)nuclear environments

Fissile materials are constantly transported on sea, land or in the air as either yellowcake from uranium mines, enriched fuel, or waste in form of spent nuclear fuel or as debris from on-going decommissioning processes. In the late 1970s and early 1980s, this transport was utterly intensified by the promises of «reusing» spent nuclear fuel through reprocessing happening in the UK and France in particular – a transportation that thus happened across and between countries. Within the Nordic region, spent fuel casks were often transported in border environments, such as the Oresund channel between non-nuclear Denmark and nuclear Sweden, leading to political tensions and discussions about transport technologies, environmental safety, and political liability. Danish public, environmental activists, and politicians

contested these transports motivated by a critique of nuclear energy in general but also alarmed by the temporary and yet very tangible presence of mobile nuclear waste in their proximity. Addressing the transportation of nuclear waste in Scandinavian environments, this paper analyses how the fluidity of the in-between in the nuclear fuel cycle challenges the constructed fixity and isolation (from the external environment) of nuclear installations and explores how the borders of nuclear environments and thus their implications on different societies shifted.

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Paper 2:

Petra Tjitske Kalshoven, University of Manchester, United Kingdom

Conjuring the green in nuclear decommissioning: The case of Sellafield

During a conversation with one of my discussion partners in West Cumbria, North West England, I was intrigued as he highlighted the Sellafield nuclear site's ecological features, transforming it in doing so: «Even though the site is mostly concrete, its peripheries are rich in vegetation. There's the river traversing the site, with otters (a European protected species) moving up and down, and then you have natterjack toads, reptiles, seabirds...»

Sellafield is steeped in fascinating and controversial history: it is the place where the UK produced plutonium for a nuclear bomb; it is the site of the first commercial generation of nuclear power, discontinued in 2003; and until recently it reprocessed spent nuclear fuel. Sellafield's mission as of 2022 consists in decommissioning and nuclear waste management, including retrieval of wastes from decrepit «legacy» buildings, followed by environmental remediation.

Sellafield's «end state» is estimated to be achieved in about a century's time. Working towards an end state will thus span several human, and many non-human, generations and involves technical, environmental, and societal uncertainties, which are tamed through practices of measuring and modelling. Drawing on my five-year ethnography of Sellafield in its West Cumbrian context, I explore the «green» phenomena, surprises, ironies, and rhetorics that become apparent from a close-up perspective on a contaminated post-industrial site wedged between the mountains and the Irish Sea. I explore the role and the potentially growing influence of «nature» in decommissioning, and ask: To what extent, and in which ways, can nuclear decommissioning enlist «the green»?

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Paper 3:

Davide Orsini, Rachel Carson Center for Environment and Society, Ludwig Maximilian University Munich, Germany

How to dismantle an atomic plant: The emergence of nuclear decommissioning as an environmental and economic challenge during the 1970s

What happens when nuclear power plants (NPPs) and facilities become obsolete and cease to operate? What are the environmental, safety, and economic implications of cleaning up nuclear sites? Overshadowed by inner and post-accident safety issues, these questions rarely enter public debates about the future and sustainability of nuclear energy production even though hundreds of nuclear facilities will be or already are in the process of being decommissioned. The first international conference on nuclear decommissioning sponsored by the International Atomic Energy Agency took place in Vienna in 1978. During the 1970s first generation NPPs and «excess» facilities became to be seen as a potential multibillion liability and their handling a challenging technical task. Both in the US and in various European countries small scale decommissioning practices had been developed but many uncertainties existed about their direct applicability to large commercial reactors. This paper traces the early technical and political debates on nuclear decommissioning and looks at the development of this multidisciplinary practice focusing on its environmental implications. To do so, it introduces the concepts of emplacement and displacement to account for and compare the socio-ecological entanglements of select decommissioning projects in Italy

and in Germany.

1508-420 on Friday, 25.08.2023, 16:30-18:00

Unitobler – F 023

Aluminium Moving South: Social and Environmental Implications (2/2) (H)

Organiser:

Simon Lobach, IHEID, Switzerland

Chairs:

Dominique Barjot, Université Paris 1 Panthéon-Sorbonne , France

Simon Lobach, IHEID, Switzerland

Abstract:

Aluminium production has, for the largest part of the 20 th century, been a northern («western») affair. The main aluminium-producing companies, based in North America and Europe, only relied on the Global South to obtain bauxite, the raw material (Smith, 1988; Campbell 1985-90). However, since the 1970s, several of the original «Big Six» aluminium companies have transferred productive capacity (including alumina production and hydroelectricity capacity) to the Global South (Sheller, 2014). This move has occurred at a time when in the northern countries, increasing attention was given to the social and environmental impacts of the aluminium countries. Since then, the market has become increasingly fragmented as new aluminium companies have emerged. With China, Brazil, Indonesia, India and others as the new producers, most of the world's aluminium is now produced in the Global South (Barjot, 2019).

This panel aims to assess the social and environmental implications of this «Move South». Why and how has this «transfer» occurred? Have aluminium companies been able to keep to their promise of initiating or contributing to a process of «development»? Which citizens of countries in the South have been most impacted by the expansion of the aluminium industry? How has the expansion of the aluminium industry (including its opening of bauxite mines, alumina factories, and hydroelectric and thermal power stations) increased central governments' control of hitherto marginalized areas? And while producers in Europe and North America became increasingly tied to environmental regulations domestically, what limitations or measures have governments in the «South» been able to impose on aluminium producers, or what measures to increase sustainability have they taken?

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Paper 1:

Olivier Chatterji, Université Grenoble Alpes, France

Local societies, Oligopolies, Development. A History of French resistance movements to industrial pollution from the «Aluminium valleys» of the Alps to the «Aluminium capitals» of the Global South

The aluminium industry is currently pushing energy and mining frontiers further into the increasingly remote areas of the global South. Recent struggles in India or Brazil have gained international attention by highlighting the environmental and economic asymmetries between the downstream oligopolistic sectors currently encroaching into the territory of indigenous societies and upstream consumption fuelled by technological innovation. However relevant to current research, these resistance movements remain poorly documented whether in the Global South or in its historic sites in the Alps. Indeed, as one of the industry's birthplaces, the Alps have moved from pioneering the sector's technological development at the onset of the «Second industrial revolution» to outliving its deindustrialisation phase at the end of the 20th century

owing to its ongoing production and R&D facilities. Meanwhile the firm Pechiney, though one of only six global players dominating the industry until the 1980's, was heavily criticised for its economic and environmental record both in the Global South and in the Alps. As such it offers a crucial case study to explore the predicament of local societies facing oligopolistic industries on the longue durée and question yet again renewed development narratives on the coming «Age of (green) aluminium» in the Global South. This paper therefore aims to explore the meaning of resistance movements in France and in the Alps alongside the formation of «aluminium communities» to offer a fresh perspective on the current nexus between marginal societies and the world's most-consumed non-ferrous metal.

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Paper 2:

Edy-Claude Okalla Bana, Université de Québec à Trois-Rivières, Canada (V)

Alucam and the inauguration of a corporate social responsibility policy towards the local communities of Cameroon (1952-2014)

In 1953, the Caisse Centrale de la France d'Outre-Mer (CCFOM) decided to partner with the French company Pechiney and Ugine, in order to make its investment profitable in the hydroelectric dam of Edea I. Pechiney and Ugine wanted to develop an aluminium smelter to transform their bauxite production in Africa with Edea II. From this partnership, Alucam, the flagbearer of the alumina industry in Cameroon, was born. Nowadays, the company is a majority public capital company from 2014. Before that, the company was successively owned from its creation to 2014, by a majority of private interests like Pechiney in 1954 to 2003, and from 2003 to 2007 by Alcan. And then from 2007 to 2014 by Rio Tinto. Throughout those sixty two years of existence, the management of the company has tried different approaches to connect to the local communities as Alucam stakeholders. Those different approaches have been the foundation of its Corporate Social Responsibility (CSR) policy towards the local communities. As Loison and Pezet (2008) have shown, the company has been the first to implement a policy that integrated simultaneously the economic, environmental, and social impacts of its activity: the Triple Bottom Line, even before the expression Corporate Social Responsibility (CSR) was coined. From 1957, the company started to intervene in health, education, social and cultural activities, essentials for local communities. This paper aims to analyse the evolution of the CSR beyond the managerial perspective, in an historical and socio-economical perspective for the local communities in Edea.

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Paper 3:

Johannes Knierzinger, University of Vienna, Austria

More investors, more domestic control, more value added? Aluminium production on the African continent since the 1970s

The place of the African continent in the global production network of aluminium since the 1970s reflects its place in the world economy in general. While independence in the 1960s was accompanied by great aspirations and efforts, the political struggles that followed showed how much this sector was still part of geopolitical strategies. My work on West Africa has shown that a large number of processing promises have been broken throughout the period from the 1960s to the present. Moreover, the small actual steps towards national and regional bauxite processing in the 1960s and 1970s were reversed in the 1980s and 1990s. The rise of China in the mid-1990s was thus accompanied by stagnation or even «premature» deindustrialization (Dani Rodrik) on the African continent. It remains to be seen whether the «African renaissance» since the 2000s has led to more than increased mineral exploitation. Thus, on the African continent, the question is not whether more domestic control has led to a better standard of living. At least for most Africans, the central question is neither whether the new investors are better or worse. The question is rather whether the diversification of investors since the 2000s (the «New scramble for Africa») has led to more control by Africans over their own resources. In the paper, I will try to contribute to this discussion by mapping the transformation of the African production network of aluminium since the

1970s.

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Paper 4:

Brad Cross, St. Thomas University, Fredericton, Canada

Invisible Indigenous Peoples and Alcan's Hinterland Hydro-electric Developments in Canada

The Aluminum Company of Canada, Alcan, brought hydroelectric development to hinterland areas of the country in the second quarter of the 20th Century. Massive dam projects and their industrial company towns were pushed into regions of Quebec and British Columbia that Provincial and Federal governments agreed would be ideal places to develop primary industry. Sweeping water concessions by governments favoured Alcan's diversion and flooding of river systems. This activity seemingly overlooked any indigenous presence on traditional lands, all in the name of industrial development and settler expansion. These once-celebrated sites of economic progress came under closer environmental and social scrutiny by the close of the 20th Century, rendering indigenous people visible against a backdrop of ambitions to expand hydroelectric capacity.

1509-466 on Friday, 25.08.2023, 16:30-18:00

Unitobler – F-105

Mountains of nutrients, plains of soy: Global connections between the hotspots and shadow places of the soy web (3/3) (H)

Organiser:

Floor Haalboom, Erasmus University Rotterdam Medical Center, The Netherlands

Chair:

Evelien de Hoop, Vrije Universiteit Amsterdam, The Netherlands (V)

Presenters of the Roundtable:

Claiton Marcio da Silva, Universidade Federal da Fronteira Sul, Brazil

Floor Haalboom, Erasmus University Rotterdam Medical Center, The Netherlands

Ernst Langthaler, Johannes Kepler University Linz, Austria

Maximilian Martsch, Johannes Kepler University Linz, Austria

Gabriel Tober, Johannes Kepler University Linz, Austria

Erik van der Vleuten, Technical University Eindhoven, The Netherlands

Abstract:

Historical changes in the soy web made major shifts in human diets and industrial livestock farming possible. These shifts were accompanied by entangled social and environmental impacts in both the global south and global north, which were invisible to many. Such places invisibly affected by a global web of commodities have been called «shadow places» by the Australian ecofeminist philosopher Val Plumwood. In three parts, «Mountains of nutrients, plains of soy» aims to bring together recent historical transnational work on soy, and to debate how such histories can make connections between the global north and global south visible. In the first two parts, scholars involved in three different Europe-based research projects on the history of soy present their work: historians working on «Soy Change» (historical ERC project based in Austria), «Soy Stories» (transdisciplinary Dutch Research Council project based in the Netherlands) and «What does your meat eat?» (historical Dutch Research Council project based in the Netherlands). In a Roundtable session the panellists debate the question how to make connections between the global north and the global south central to such Europe-based research. What do the different projects and

approaches make visible and invisible about places related to the global soy web? And what does this bring present-day debate about global injustices and environmental destruction related to soy?

Panellists are the speakers from the «Mountains of nutrients, plains of soy» panel series.

1510-396 on Friday, 25.08.2023, 16:30-18:00

Unitobler – F-113

Environmental and Energy Futures in the 1970s

Organiser:

Jacob Ward, Maastricht University, The Netherlands

Chair:

Rob Gioielli, University of Cincinnati, USA

Abstract:

This session explores the importance of futurity to environmental and energy history, focussing on the 1970s as a key juncture in the political economy of energy and the global environment. Environmental history has increasingly seen futurity as important to understanding how modes of environmental thought and governance change. Futurity here has manifested in two main ways: in visions of ecological change, and in material practices of prediction, such as forecasting or simulation. All these forms of futurity embed assumptions about present and future environmental-economic systems and so offer a rich source for environmental historians.

The 1970s was a critical moment for how these environmental futures shaped wider debates about reforming crisis-stricken political and economic systems. The energy crises of the 1970s, combined with striking predictions about our planetary future, such as the Limits to Growth and Paul Ehrlich's The Population Bomb, meant that environmental and energy futures gained a particular political-economic power. At this moment, energy and environmental futures became political and economic futures, conveying expectations about the environment of the global economy and the politics of humankind's relationship with nature.

This panel's papers investigate these futures in different scales and dimensions. Butler's paper, «Small is ethical», explores how E.F. Schumacher's envisioned futures of decentralised economies and small-scale production shaped and was shaped by British ecological and political thought. Russ's paper, «Formalizing Substitution», explores the role of energy modelling and forecasting in the institutionalization of energy balancing across OECD states in the 1970s and the relation of this balancing to energy financing. Ward's paper, «Low Energy Futures and the Market Turn», returns to the United Kingdom, exploring how material practices of energy forecasting in coal and atomic energy influenced the «market turn» to neoliberalism. Frowijn's paper, «History of the emergence of the hydrogen economy ideal» investigates the visions of a future hydrogen economy that would enable a fossil-free future.

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Paper 1:

Lise Butler, City University London, United Kingdom

Small is ethical: E.F. Schumacher and the moral foundations of 1970s environmentalism

In the early 1970s economists, planners and policy makers became increasingly anxious about population growth and the threat of a global energy shortage. One particularly influential response to this sense of

economic and ecological crisis was the economist E.F. Schumacher's 1973 *Small is Beautiful: Economics as if People Mattered*, which challenged the policy objective of economic growth, and argued for a programme of decentralised economic planning and small scale production called «intermediate technology». This message was embraced by California governor Jerry Brown, and served as a key inspiration for the burgeoning environmental movement of the 1970s.

While Schumacher's ideas were embraced by the American counterculture, they had been developed at the heart of the post-war British state: in the 1950s and 1960s Schumacher had served as an economic advisor to the British National Coal Board, and as an advisor on development policy to the Indian and Burmese governments. This paper will situate Schumacher in a broader milieu of British ecological thinkers, including the journalist and development economist Barbara Ward, and the World Wildlife Fund director Max Nicholson. It will explore the links between 1970s ecological thought and the British ethical socialist and anarchist traditions. And it will suggest that the environmental politics of the 1970s had intellectual origins in ethically-inspired critiques of Keynesian economic planning, nationalisation policies, and bureaucracy which shaped the politics of both left and right in post-war Britain.

Paper 2:

Laurens Frowijn, Delft University of Technology & Utrecht University, The Netherlands

History of the emergence of the hydrogen economy ideal

The hydrogen economy was first mentioned in a scientific publication by Bockris and Appleby in 1972. Soon after, the popularity of the hydrogen economy ideal rose rapidly. A scientific journal was created and an international conference was held in 1974. In our paper, two main arguments are postulated for the emergence of the hydrogen economy concept in 1972: The technological fix argument and the utopian argument. The hydrogen economy ideal arose as a reaction to the problems that were given more prominence in the 1960s and 1970s, namely environmental pollution and the depletion of fossil fuels. These problems were considered to be the result of the fossil fuel economy.

The hydrogen economy was considered as a technological fix to replace fossil resources, since hydrogen was relatively easily produced and transported and could be utilized for many applications. The hydrogen economy was also the next step towards realizing a nuclear society. The utopian ideal that nuclear energy could revolutionize energy systems and provide indefinite and abundant energy could not be executed yet. A problem was that within this nuclear society the centralized produced electricity from nuclear power plants needed to be transported over large distances and transporting electricity via interconnected lines was considered to be overly expensive. Hydrogen was considered a logical, affordable and practical chemical fuel to transport energy via pipelines. The hydrogen economy was in that perspective a necessary addition to the utopian dream of a nuclear society.

Paper 3:

Jacob Ward, Maastricht University, The Netherlands

Low Energy Futures and the Market Turn: Energy and Environmental Forecasting in British Government

This paper explores energy and environmental futurology in British government in the 1970s, analysing how different practices of forecasting and simulating energy production and consumption shaped the «market turn» from a public, nationalised political economy to a globalised-neoliberal political economy. Energy forecasting has been central to Western political and corporate governance over fossil fuel extraction for most of the twentieth century (Cohn, 2017; Wright and Trentmann, 2018), but took on new significance during the 1970s, when energy crises and environmental disasters placed new demands on how governments predicted energy production and consumption.

«Low energy futures» research in the United Kingdom's Atomic Energy Authority and National Coal Board

provided these national energy producers with new futurological techniques, such as computer simulation. These energy futures set expectations for a future after the oil crises of the 1970s and, in doing so, created and perpetuated wider assumptions about the global environment. These future-making practices take on additional significance in the context of arguments that the shift away from coal to oil-based economies also apparently supported the market turn from social democracy to neoliberalism (Mitchell, 2011). But, as this paper will emphasise, Britain's coal use and production continued to rise until the 1980s, at which point the UK was still a net energy exporter. Understanding how futurology gave life to the nationalised coal and nuclear energy industries in the UK in this period thus helps expose how energy futures, and not just oil, mediated the market turn to neoliberalism.

1511-252 on Friday, 25.08.2023, 16:30-18:00

Unitobler – F-121

Problems of Place: An Ongoing Conversation on Community, Connection, and Belonging (H)

Organiser:

Elizabeth Hameeteman, Environmental History Now, Germany

Chairs:

Elizabeth Hameeteman, Environmental History Now, Germany

Anastasia Day, Environmental History Now, Germany (V)

Presenters of the Roundtable:

Trang Dang, Nottingham Trent University, United Kingdom (V)

Knar Gavin, University of Pennsylvania, University Park PA, USA (V)

Kuhelika Ghosh, University of Wisconsin, Madison, USA (V)

Ramya Swayamprakas, Grand Valley State University, Allendale MI, USA (V)

Ana Sekuli, University of Pittsburgh, USA (V)

Kate Stevens, University of Waikato, New Zealand

Abstract:

The global pandemic of COVID-19 has trapped many people sheltering «in-place». Simultaneously, more human activity than ever before is transpiring place-lessly over the internet, in cyber rooms, and digital spaces. These contradictory trends only exacerbate a conundrum common to young scholars in environmental history: the personal/intellectual drive to be rooted in the past and place, versus the economic imperatives to be migratory and mutable. While there are many structural issues that need to be addressed, this session will break some of the tacit silence on a series of problems that drive many scholars, especially those from underrepresented groups, from careers in the academy. How can academia be more inclusive? How can intellectual communities be crafted between heterogeneous individuals, across global distances, and despite economic precarity?

The session features scholars who have written about the importance of community, connection, and belonging for Environmental History Now, an online platform that showcases the environmental-related work and expertise of graduate students and early career scholars who identify as women, trans and/or non-binary people. While its ongoing «Problems of Place» blog series explores these questions in text, this hybrid session seeks to create a metaphoric place for these conversations to happen live and dynamically, despite spatial distance.

1512-230 on Friday, 25.08.2023, 16:30-18:00

Unitobler – F-122

Entire of Itself? Towards an Environmental History of Islands

Organiser:

Pavla Šimková, Ludwig Maximilian University Munich, Germany

Chairs:

Pavla Šimková, Ludwig Maximilian University Munich, Germany

Milica Prokić, University of Glasgow, United Kingdom

Abstract:

This session will launch a new volume on the environmental history of islands that eighteen authors have worked on for the last two years. Through the stories of fourteen islands from around the globe, the volume *Entire of Itself? Towards an Environmental History of Islands* showcases islands as dynamic entities that both shape history and are shaped by it. The volume includes a range of case studies: from national parks in the Mediterranean to sugar plantations in Japan, from silt river islands in the Ganga to active volcanoes in the Pacific, and from small specks of land such as the prison island of Goli otok or the former nuclear test site of Enewetak Atoll to the substantial islands of Corsica and Réunion. Covering time periods from antiquity until the present day, *Entire of Itself?* is a group portrait of this peculiar category of places. The volume brings the environmental history aspect to the booming field of island studies, viewing islands as discrete parcels of the environment – laboratories of natural and social processes. Exploring the intertwined temporal, material, and identity layers of island environments, the contributions in this volume challenge the traditional centre-periphery perspective, and instead take an island-centred approach, delving into both the islands' own stories and their role in larger historical developments.

In this session, we will introduce the volume and engage in a broader discussion of environmental history of islands, its contributions, challenges, and opportunities.

1514-320 on Friday, 25.08.2023, 18:00-19:00

Unitobler – Foyer in front F-121

History of Climate Science Apéro

Organiser:

Dania Achermann, University of Wuppertal, Germany

Abstract:

This is an informal meeting open to everyone working or interested in the history of climate science. We will gather to meet old and new colleagues, to catch up on research interests and projects, and to discuss the possibility of establishing a more structured form of future exchange.

0315 on Friday, 25.08.2023, 18:00-19:00

Unitobler – F 022

Regional meeting – France

0316 on Friday, 25.08.2023, 18:00-19:00

Unitobler – F-113

Regional meeting – German speaking countries

0317 on Friday, 25.08.2023, 18:00-19:00

Unitobler – F-105

Regional meeting – Nordic countries

0318 on Friday, 25.08.2023, 18:00-19:00

Unitobler – F-112

Regional meeting – Croatia, Serbia, Slovenia

1519 on Friday, 25.08.2023, 18:00-19:00

UniS – A 015

Regional meeting – Low Countries (Netherlands, Belgium, Luxembourg)

Friday, 25.08.2023, 19:30-24:00

Restaurant Grosse Schanze

Closing Reception

Saturday, 26 August 2023

Excursion on Saturday, 26.08.2023, 7:00-20:00

Piora Valley

The Piora Valley – between «old» and «new» commons

Organisers:

Tobias Haller, University of Bern, Switzerland

Ariane Zanger, University of Bern, Switzerland

Piora is one of the largest alpine pastures in Canton Ticino, where the renowned Piora AOC cheese is produced. Owned by the ancient «Corporazione dei Boggeli di Piora», it is also managed by the members of the corporation on a voluntary basis with the help of a professional staff combining traditional uses with modern cheese-making techniques. The excursion will focus on the evolution of collective uses and the challenges of the new land use forms and ecosystem services, from mountain pastoralism and hydroelectric exploitation to tourism and nature conservation.

We will be travelling from Bern (departure 7:00h, meeting point 6:45h) to Ambrì-Stazione, from where we will take a minibus and drive to Lake Cadagno. There we will meet with local guide Mark Bertogliati, who will visit the Piora alp with us. There will be lunch with typical local products, followed by an excursion on foot back to the Rifugio lago Ritom (1,5 -2 hours). From there we will be taking the minibus back to Ambrì-Stazione, from where we will return via Lucerne to Bern (arrival time approx. 20:00h).

Excursion on Saturday, 26.08.2023, 8:00-18:30

Ballenberg

Rural life in the Swiss mountains and plains: The rural open-air exhibition at Ballenberg in the Bernese Alps

Organiser:

Martin Stuber, University of Bern, Switzerland

Welcome and introduction:

Mirjam Koring, Division Manager Exhibitions, Education and Engagement, Swiss Open-Air Museum Ballenberg

This prize-winning site offers a superb insight into traditional living and working conditions in historical Switzerland covering all Alpine and non-Alpine regions of Switzerland. Rural farmhouses, Alpine granaries, etc. have been transferred and re-erected. You may also try to bake traditional bread, to make soft cheese etc.

In rotation in groups of 10

House tour 1: **Stefan Kunz** (SNSF project «Human and House»): Adelboden BE

House tour 2: **Linda Imhof** (SNSF project «Human and House»): Cugnasco TI

House tour 3: **Martin Stuber**: Sachseln OW (new permanent exhibition «Forestry Museum»)

Excursion on Saturday, 26.08.2023, 8:00-19:30

Schynige Platte and Grandhotel Giessbach

Hot spots of Alpine tourism in the Belle Époque: Schynige Platte and Grandhotel Giessbach

Organiser:

Christian Rohr, University of Bern, Switzerland

The excursion based on public transport will firstly lead to the Schynige Platte. A historical cog railway starting at Wilderswil near Interlaken in the Bernese Alps brings us up to an altitude of 1967 metres a.s.l. to provide the maybe most spectacular view of the Bernese Alps (Eiger, Mönch, Jungfrau). It is a wonderful study site to examine Belle Époque tourism infrastructure. The historic Botanical Alpine Garden on top is a unique attraction displaying over 700 species of plants native to the Swiss Alps and growing in their natural environment. A one hour scenic walk will lead the more active participants to various spectacular viewpoints. The others may enjoy the view from the terrace of the restaurant on top of the Schynige Platte.

After a ship trip across Lake Brienz (presumably with a paddle steamer of 1914) and a short ride with the oldest still working funicular railway of Europe (1879) we will arrive at the Grandhotel Giessbach built in the 1870s close to the famous Giessbach waterfalls. This Grandhotel suffered difficult times until it has been rescued by a national initiative led by Swiss naturalist Franz Weber. It is today one of the most beautiful historic hotels in Switzerland with a protected landscape park around. The guided visit of the natural resort (one hour walking tour) and the historic hotel will be followed by a light Apéro included in the price. On the way back, we will take the ship across Lake Brienz again and return to Bern by train.

Please note that in case of very bad weather the trip to the top of the Schynige Platte will be replaced by a visit to Grindelwald, a tourist hot-spot formerly known as «the village beneath the glacier».

Excursion on Saturday, 26.08.2023, 8:00-18:30

Jura Lakes

The Jura lakes melioration project

Organisers:

Christian Rohr, University of Bern, Switzerland

Sebastian De Pretto, University of Bern, Switzerland

Due to the Aare River and its tributaries, the so-called Grosse Moos marshland northwest of Bern had been flooded year-by-year making the area nearly inhabitable. In the second half of the 19th century, however, the Aare River was diverted into Lake Biel, and besides this lake, also Lake Neuchâtel and Lake Murten had been lowered by more than 2 metres. In this way, the whole ecosystem has changed: the Grosse Moos is one of the most important areas for vegetable cultivation today; the famous Saint-Peter's Island in Lake Biel (once the place of refuge of Jean-Jacques Rousseau) became a peninsula with a reeds nature reserve.

The excursion by coach will lead us firstly to the Schlossmuseum Nidau situated close to Lake Biel (exhibition on the history of the melioration project). We will then proceed to the mouth of the Hagneck channel diverting the Aare River into Lake Biel. The small delta is today restructured by a renaturation project bringing eagles and other birds back to this region. We will then enjoy a view from Mont Vully over the Grosse Moos plain and the three lakes. After a small walk through the tiny historic city of Murten you will

have time for a lunch break. Please note that lunch is not included in the price. You may go to a restaurant, take some food and drink at a supermarket or take-away restaurant or book a lunch package. In the afternoon, we will take the ship course on Lake Biel from Erlach to Saint-Peter's Island. After a short walk, we will arrive at a (former) medieval priory. The ship will finally bring us to Ligerz, a small scenic village of winemakers, where we will join our coach again to bring us home to Bern.

Excursion on Saturday, 26.08.2023, 8:00-18:00

Aarberg and Murten

Defending the country in a marshland: The fortifications of Aarberg and Murten, 1815-1918

Organisers:

Daniel Marc Segesser, University of Bern, Switzerland

Juri Jaquemet, Museum of Communication Bern, Switzerland

Up to the mid-19th century, the so-called Grosses Moos was flooded year-by-year due to a large body of water flowing from the Aare River and its tributaries into this shallow part of the country. For the city-republic of Bern this meant that the main access to its territory from the west could rather easily be defended at the country town of Aarberg, where many roads and lines of communication met.

In the second half of the 19th century, however, due to the Jura lakes melioration project the Aare River was diverted into Lake Biel, and besides this lake, also Lake Neuchâtel and Lake Murten were lowered by more than 2 metres. In this way, not only the whole ecosystem changed, but the defensive positions in Aarberg lost much of their strength. The line from Mont Vully along the Zihl Canal and the Jolimont became a more forward position that was fortified in the context of the defensive operations of the Swiss Army during the First World War.

The excursion by coach will lead us at first to the country town of Aarberg, where we will visit the old city as well as the fortifications built in the early 19th century. We will thus be able to see, how the military of the time used their knowledge of geography and ecology to set up positions to defend their country against an attack from the west. We will also see, how the changes of the second half of the 19th century including the Jura lakes melioration project changed the situation. We will then proceed to Mont Vully, which will give us a perfect view over the whole area and which still contains remnants from Swiss positions built during the First World War. After a lunch break in Murten we will move to the Jolimont and the Zihl Kanal to have a look at how the Swiss Army planned to defend itself against a possible attack of French forces through the Jura during the First World War. In the course of our travel we will also have the possibility to see where and how visions existed for a city of world peace in this region.

Excursion on Saturday, 26.08.2023, 9:00-13:30

Stapferhaus, Lenzburg

A visit of the exhibition «Nature. And us?» in the Stapferhaus Lenzburg

Contact:

Christian Rohr, University of Bern, Switzerland

The Stapferhaus in Lenzburg, a small city between Bern and Zurich, is a well-known and award-winning exhibition site. It focuses on crucial topics of our society and envisages a wider public. The current exhibition

«Nature and us» deals with views on «nature» in the past (e.g. by collecting plants and dead animals in museum collections), as well as on our current and future challenges concerning climate change, biodiversity and resources. The concept of presentation is enriched with interactive tools and innovative ways of presenting the different aspects. E.g., why not experiencing the urban environment from the perspective of a rat? The guided tour will also look behind the scenes and will focus on didactic aspects.