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Revue Internationale d'Ethnologie et de Linguistique

Sabina Cveček | Barbara Horejs [Eds.]

The Seasonal and the Material

Anthropology of Seasonal Practices

Nomos

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Introduction

Sabina Cveček and Barbara Horejs

Introduction

Renewed interest in collaborations between social anthropologists and archaeologists has been emerging for some time now in global academia. The main ideas and motivations behind the renewed interest in collaborations between social anthropologists and archaeologists also inspired the creation of this special section. Humans are not only social animals but seasonal as well. The worldwide ethnographic record provides many perspectives on seasonal human behavior, such as seasonal dwellings, seasonal use of space, and seasonal changes in the socio-political organization among non-state groups. Nevertheless, it remains challenging to identify seasonality from prehistoric assemblages. In exceptional cases, ethnographically documented practices observed among present communities may help infer seasonal practices from archaeological evidence based on direct historical analogy. In most prehistoric settings, however, a historical analogy may not be suitable due to the time lag of millennia. With continuing gaps in environmental and climate history and the impact of socio-political transformations, the difficulty of providing continuity between the archaeological and historical past and the ethnographic present represents enduring challenges. Building hypotheses based on cross-cultural anthropological research may be more suitable for some of these cases than individual cases of possible analogies.

Archaeologists continuously work towards developing new methods and sampling techniques in collaboration with experts in natural sciences. This well-established interdisciplinary approach has led to many new bioarchaeological and archaeometric methodologies in the last decades, providing new sources for analyzing past societies. Some even understand this approach as a Third Science Revolution (Kristiansen 2014). Even if the scientific impact of molecular biological analyses can only be assessed using a long-term perspective, its role might be placed alongside previous methodological innovations such as radiocarbon-dating or trace-element analyses of inorganics in the future. This development, also summarized

by a broadening of the term archaeological sciences has produced an enormous outcome of new data and models that confront researchers with the challenge of discussing and implementing the appropriate ethical (Somel et al. 2021; Ávila-Arcos et al. 2022; Kowal et al. 2023) and theoretical framework (Furholt 2021; Cveček 2024; Horejs 2024). The latter represents an ongoing process in archaeology searching for sustainable tool kits, where socio-cultural anthropology is experiencing a comeback for a renewed collaboration towards understanding past societies. In these contexts, interpretative approaches, generated through a collaboration between archaeologists and social anthropologists, remain vital to strengthening our understanding of past and present practices linked with seasonality and understanding of the (non-)human. This also promotes an improved awareness of how seasons continue to shape our research insights and/or frame our fieldwork rhythms.

Seasonal practices are spatial and time-dependent. They cannot be ignored in long-term ethnographic projects but could be easily overlooked in archaeological deposits. In the latter, seasonal practices are entangled with everyday, possibly non-seasonal objects and practices. Therefore, to discern seasonal from non-seasonal, permanent from non-permanent, and material from non-material while putting back together these puzzles, archaeologists are invited to embrace the cross-cultural variability documented in the ethnographic record. At the same time, social anthropologists may crucially benefit from extending the retrospective timelines of inquiry backward, i.e. before 1492 AD. Including the archaeological insights in their writing about the social phenomena observed in the present may, after all, challenge the apparent uniqueness of certain social phenomena. Beyond all the debates and controversy the book has initiated, "The Dawn of Everything: The New History of Humanity" (Graeber and Wengrow 2021), through its widely shared interest to readers, has, since its publication, indicated a solidly growing, renewed interest in interdisciplinary dialogues between archaeologists and socio-cultural anthropologists. Although four-field approaches in anthropology may be more common in Anglo-American academic contexts, "The Dawn of Everything," as well as this present issue, clearly indicates that dialogues between anthropologists of the past and those of the present also continue in Central Europe, beyond the anglophone world. Readers of the *Anthropos* journal, founded in 1906 by Wilhelm Schmidt, will need no special reminder that these dialogues have a rich and productive history, especially in German-speaking academia. Despite the possible comeback of active interdisciplinary collaboration between

archaeologists and socio-cultural anthropologists, such an approach still represents a nascent minority agenda within both fields.

Fig. 1: Location of the case studies and examples mentioned in this special issue (M. Börner, S. Cveček, B. Horejs)

This special issue includes contributions dealing with seasonal practices in non-state and early state sedentary and (semi-)nomadic groups from ethnographic, historical anthropological, and archaeological perspectives (see Fig. 1). The topic of seasonality is addressed through the socio-political organization, dwellings, use of space, crafts, and farming/foraging practices, as well as gender and infrastructure. The main aim of this issue is to show how fostering a dialogue between socio-cultural anthropologists and archaeologists dealing with seasonal practices allows us to explore the entanglement of humans and non-humans in its diversity. Beyond Marcel Mauss's "Seasonal Variations of the Eskimo" (Mauss 2004 [1906]) and the vast amount of attention for "The Dawn of Everything," the present collection "The Seasonal and the Material" has also been inspired by the work of French social anthropologist Maurice Godelier. In "The Mental and the Material" (Godelier 1986), Godelier posed questions such as, "How is its [engagement of humans with nature] history to be explained? What

impact do material realities, natural and man-made, have on human beings?" These questions were initially raised in the 1980s, and Godelier tackled them through "deep" and "shallow" history, including archaeology. These questions remain actual for present-day exploration and provide examples of how they can be addressed through interdisciplinary cooperation and dialogue. Bringing both disciplines, i.e. primarily archaeology and socio-cultural anthropology, together in the combined contributions to this special issue also aims at renewing the traditional collaborative approach in the light of the recent bioarchaeological and archaeometric developments searching for new interpretative tools.

Seasonality in Anthropology

In addition to some of the famous early writings of Marcel Mauss (2004 [1906]), seasonality was also an important topic elsewhere in socio-cultural anthropology from the field's early-20th-century periods and the canonical classics they brought forth. For example, seasonality was documented in detail among the Nuer by Evans-Pritchard (1940), who documented and sketched the Nuer seasons by their seasonal rounds and explained seasonality's impact on the Nuer perception of time and socio-political organization. Nuer seasonal movements depended on the availability of pasture and drinking water necessary for their cattle (p. 59). Moreover, they made use of seasonal flooding of, and by, rivers.[1] In November and December, when the water level in the river falls, the Nuer dammed fish in the streams and lagoons that they caught with spears at night, with the help of fires lit behind the fishers.[2] Also, among domesticated crops and staple foods, there were seasonal fluctuations. For example, milk was a staple food among the Nuer, available year-round. However, cows produced less milk towards the end of the rainy season due to the lack of available pasture. The seasonal variation in food was also significant for the social organization of the Nuer. The Nuer routinely held important ceremonies such as weddings, initiation rites, and religious ceremonies in the rainy season after the first millet harvest. At the same time, this was the primary season for raiding

1 For seasonal patterns of flooding and how they have shaped human settlement, agriculture, and resource use in the Amazon forest, see Hecht and Cockburn (2010).

2 For the cyclical nature of salmon reproduction, the seasonal labor patterns of fish farmers, and the impact of these rhythms on the social and ecological dimensions of salmon farming among industrial farming of salmon in Norway, see Lien (2015).

the neighboring Dinka since the Nuer said they were too hungry to fight in the dry season (p. 84). The seasonal variation of activities, mapped by "EP" (Evans-Pritchard) in a seasonal chart, highlights seasonal time-reckoning. This is a well-known procedure in other ethnographic cases, too. The Nuer recognized the dry (*tot*) and the wet season (*mai*), including two transitional periods between them. They spoke of *rwil*, which is when they move from camp to village and from clearing to planting (mid-March until mid-June), and *jiom*, when they moved from village to clearing and pasture (mid-September until mid-December). Based on the importance of seasonality and ecology in the Nuer's ways of living, EP argued that

> probably, for ecological reasons, the actual political configuration remains very much the same from generation to generation. People pass through the political system without their structural position in it changing to any extent during their passage. It is the same with the lineage system. (Evans-Pritchard 1940: 256)

The last quote highlights that seasonality is not only a dynamic process that results in change but that seasonal practices may also contribute towards maintaining socio-political stability and reproduction of the same type of social organization. This argument complements the role of seasonality linked with political fluctuations among the hunter-gatherers and early farming groups in Eurasia that was recently re-emphasized (Graeber and Wengrow 2021). Therefore, it remains important to look at how seasonality affects the material consequences and changes in socio-political organization but also may pose constraints to change in kinship, politics, religion, and rituals of local and broader regional groups.

Other classical works from anthropology's history before and after the mid-20th century also demonstrate that seasonality was intrinsic in most of them. In "The Work of the Gods in Tikopia" (1967 [1939]), Raymond Firth analyzed in detail the Polynesian seasonal ritual cycle among the Tikopia, which he described as the crucial aspect of their social life. In turn, throughout his four volumes of "Mythologiques," Lévi-Strauss subsequently (1964; 1967; 1968; 1971) explored the cross-cultural representation of food and cooking, trickery and mythology, food sharing, and the human body and art from structuralist perspectives to address the universal structures and themes that underpin myths. Food practices and myths, however, were closely linked with seasonal cycles that related to indigenous social organization among the societies he studied in the Americas. In her different but complementary perspective, Mary Douglas (1970) explored the symbolic

meanings attributed to natural phenomena, including seasonal cycles. She argued that human societies create myths, rituals, and cultural practices – related to seasonal changes – to make sense of the natural world. At about the same time, in his radically systemic and environmentally oriented approach, Roy A. Rappaport (1968) explored the relationship between ritual, religion, and ecology among the Tsembaga of Papua New Guinea. These are just a few well-known examples from some of the major British, French, and American legacies in 20th-century anthropology before the post-modern turn. Peter Rohrbacher (this issue) discusses important counterparts in German. In all these works, seasonality was not described as a one-way road. In some cases, seasonality may denote change (Graeber and Wengrow 2021, see also Krause , see also Krause, this issue); in others, stability (see Evans-Pritchard 1940: 256; Douglas 1970).

However, it has to be said that before the publication of "The Dawn of Everything" (Graeber and Wengrow 2021), seasonality had not yet emerged as a topic *sui generis* in socio-cultural anthropology (see also Schweitzer, this issue). In contrast, archaeologists considered seasonality an important topic regarding the "agricultural revolution" (Braidwood 1960). Yet, together with the rising importance of climate change research in the past two decades (Hastrup 2009; Crate and Nuttall 2016; Stensrud and Eriksen 2019), seasonality has witnessed an important comeback in a new format. In classic ethnographic texts, seasonality was treated through adaptation to natural fluctuations and using a stark conceptual divide between nature and culture, although not in all cases (see Schweitzer, this issue). By contrast, recent scholarship has usually preferred to conceptualize seasons in terms of rhythms, emphasizing "the dynamics of social and ecological processes" that "allows us to recognize them not as fundamentally separate or opposed, but as implicated in each other" (Krause 2013: 24). Therefore, seasons, rhythms, nature, and culture cannot be neatly separated but have to be studied side-by-side. Under these reinvigorated premises, research will gain an improved understanding of local dwelling and movement codes and ensuing variations in socio-political organization.

Seasons often have a political dimension to them, as can be observed in this special issue. For example, Lisa Rail in this issue describes how seasonality shapes the infrastructure, dwellings, and property relations in the Austrian Tyrol region. Moreover, the returning seasonal rhythm of visiting the high mountain summer pastures among the Kalasha recreates and maintains strong male-to-male bonds, as described by Augusto Cacopardo in this issue for northwestern Pakistan. The political side of seasonality

can also be noticed beyond the cases addressed in this special issue. For example, during the Covid-19 pandemic, seasonal workers in agriculture were exempt from travel bans to harvest asparagus, salad, grapes, and other items requiring the employment of short-term but large workforces in central Europe. Furthermore, seasonal migration is to be observed, for that matter, for harvesting salmon in Norway (Hecht and Cockburn 2010), where the Covid-19 restrictions also did not apply to workers within the fishing industry. Therefore, we must not overlook the importance of state and local needs when thinking about seasonality, seasons, and seasonal rhythms. Both tribal, non-state societies as well as industrialized nation states, as we know them today, are incapable of ignoring, and certainly have not "overcome," seasonality and seasonal rhythms.

Seasons also have much more obvious economic relevance. For example, seasonal trade routes rely on seasonal winds that enable seafaring from one coastal or riverine site to the other or trading across difficult terrains. On the southeast coast of Papua New Guinea, sea voyages were seasonal and could only happen at particular times. This was the only time to connect with one's trade partner on the other side of the gulf.[3] If people knew that trade would take place this year, everyone would have created and produced more: they would have produced more pots and cultivated more gardens to harvest more and create more surplus. Once the voyage was successfully concluded, a Big Man took much credit for redistributing the surplus (Munn 1992). Also, Anna Tsing, in her book "The Mushroom at the End of the World. On the Possibility of Life in Capitalist Ruins" (2015), delves into the seasonal rhythms and ecological dynamics that shape the mushroom's growth and the ways in which it is entangled with human societies. To paraphrase Marshal Sahlins, who argued that "the elementary forms of kinship, politics, and religion are all one" (Sahlins 2008: 197), it seems that the elementary forms of politics and economics are inseparable from seasons. They – politics, economics, and seasons – are one.

Seasonality in Archaeology

The impact of seasonality and seasonal rhythm upon prehistoric societies has been well-known since the early days of archaeology as demonstrat-

3 The same applies to the Bothnian Gulf of Finland where during medieval times locals would stop trading over winter, between November and May, due to the inaccessible packed ice (Nurmi et al. 2020).

ed by seasonal cycles of hunter-gatherers related to hunting Pleistocene megafauna in Ice Age Europe as described by M. Hoernes, the founder of prehistorical studies at Vienna University (Hoernes 1892: esp. 156–218). The existential significance of seasonal-related conditions, limitations, and opportunities have been integrated since then into archaeology, leading to an enormous number of publications dealing with environmental-related seasonality around the globe. A recent study, for example, provided the microscopic evidence of eggshells from migratory birds pointing to a seasonal benefit as an additional nutrition source for the lakeshore hunter-gatherers in Schöningen (Germany) c. 300,000 years ago (Conard et al. 2015).

While the political and social dimensions of seasonal rhythm and cycles are well addressed in anthropology, the archaeological debates of prehistoric communities in deep history did not primarily focus on these aspects, not only but also *because* of the methodological difficulties in proving direct causal connections of short-term practices with their long-term socio-cultural or even political impact based on scientific data. The nature of solid archaeological data in deep history usually prevents the modeling of rapid events or abrupt changes within one human generation. Therefore, reconstructing the political effects of seasonality in archaeology was mostly restricted to such state or pre-state systems in antiquity that were related to available written sources. The rise of Pharaonic Egypt, inter alia, based on the newly invented centrally organized agriculture and water management of the repeating seasonal Nile flooding c. 3000 BCE (Kemp 2006) or the hydro-engineering technologies related to the seasonal rhythm of agriculture closely linked with the early state formation process in Mesopotamia of the 4th millennium BCE (Wilkinson 2014; Rost 2017) are examples for the political dimension in the archaeology of seasonality.

However, the nature of seasonality-linked data in archaeology offers the advantage of studying regular repeating effects beyond short-term events but through the lens of a *longue durée* perspective. Hence, seasonality-related results in the archaeology of prehistoric and pre-state societies cover a wide range of topics, like distinct agricultural or hunting-foraging practices, nutrition, and food-related activities, sourcing and procurement strategies, exchange networks and traveling modes, sedentism, mobility and pastoralism, production and applied technologies as well as their differing impact through space and time.

Seasonality and Cultural Dynamics in Archaeology

Seasonal-related challenges to past societies played a distinct role in defining specific cultural dynamics, such as the maritime networks developed between continental southeast Asia and Japan for the rising of the Jomon culture since the early Holocene based on – among others – seasonal fishing practices (Kobayashi et al. 2003; Lapteff 2006) or the cultivation of particular wild crops and the associated plant management in the early agricultural Fertile Crescent (Braidwood 1960; Asouti and Fuller 2011; Riehl 2016). The impact of seasonal cycles on early Mediterranean societies represents another illustrative example for demonstrating the wide-ranging cultural dynamics based on seasonal cycles in archaeological case studies. Since at least the upper Paleolithic, the specific environmental conditions for navigating through the Aegean Sea (including deep water) before the invention of sails required a distinct nautical knowledge of and seafaring skills covering winds, currents, fresh water sources, landing options and routes – a nautical package which is strongly interlinked with seasonality (Broodbank 2013). Specific repeated practices in the early Holocene Aegean region can be linked with this nautical package and are evident in new sourcing practices for obsidian and jadeite on the Cycladic Islands (Horejs 2019), food and ornament procurement strategies (Perlès 2016) or migration routes of Neolithic pioneers into the region (Horejs et al. 2015) – all of them representing the *longue durée* aspect of seasonality and seasonal rhythm for these societies. Recent studies, including the new analytical opportunities of stable isotopes in Mesolithic shell middens, demonstrate seasonal practices both in foraging marine shells by the populations in Iberia arguing for the intimate knowledge by the foragers of the seasonal development cycles of the mollusks and in choosing the colder months for collecting due to higher meat yield (García-Escárzaga et al. 2019).

New Challenges and Current Debates

Coming back to our main aim of fostering a new dialogue between our disciplines dealing with seasonal practices, it is worth addressing some challenges from an archaeological perspective in light of current debates. While the majority of interdisciplinary studies in archaeology focus on past societies with a traditional strong human-centric (and human-made material) perspective, it appears the right time to shift our focus towards

a wider and more inclusive perspective for future (less anthropocentric) approaches. Coevolutionary theoretical frameworks for understanding the interweaving of humans and their environments represent an established approach in archaeology, where animals and plants, as well as the environmental contexts are regularly studied. The interdependencies of co-existing species are well-known since we overcame the "man as crown of creation" concept decades ago but have received new attention since the Covid-19 pandemic. This refreshed perspective on humans as part of interconnected species is reinforced by the new bioarchaeological data of recent years. For example, the cultural transformation process of the Neolithization between southwest Asia and Europe c. 9,000 years ago was accompanied by human-adapted bacterial pathogens and viruses, such as *Salmonella enteric* or *Yersinia pestis* (Key et al. 2020; Morozova et al. 2020). Studying the development of early agricultural communities and their new way of living in house-based communities should, therefore, include not only the new human social relations but also a new level: the intensity and quality of interaction of humans and animals living closely together for the first time in history, supporting the emergence of zoonoses and new viral diseases, such as tuberculosis, plague, or hepatitis. This new perspective of a *multispecies archaeology* (Horejs 2024) not only offers a fresh look at old questions including the role of seasonality but also allows us to integrate a new methodological approach to obtaining new data.

A Case Study of Multispecies Archaeology and Seasonality

One example from ongoing studies about early farming and herding communities in southeast Europe can illustrate the new opportunities in the light of *multispecies archaeology* and the potential role of seasonality for new insights into past societies. The first agricultural communities in the Balkans are associated with the Neolithic expansion by a movement of pioneers (small-scale groups) with livestock, crops, and pulses from west Asia into southeast Europe c. 6200–6000 calBC. The subsequent centuries-long cultural transformation is summarized as Neolithization. This term refers to a complex, only vaguely understood process of adaptation and modification in aspects of cultural expression, social organization and interaction, economy, and technology (Greenfield and Jongsma Greenfield 2014; Borić et al. 2018). The very likely semi-mobile lifestyle related to pastoralism appears currently as the best model to characterize most of the

early Neolithic sites in the central Balkans, where permanent, long-term settled villages are lacking in the associated Starčevo cultural horizon for at least half a millennium after the initial Neolithic (Bánffy 2019; Horejs 2024).

Seasonal mobility of herding communities within a regularly repeating scale would explain some of the scarce archaeological data from this period and the dominating "pit-houses" in particular but are almost impossible to scientifically argue for, based on the archaeological evidence (Bailey 1999). New interdisciplinary investigations at the early-middle Neolithic site in Svinjarička Čuka (south Serbia) are aimed at analyzing the hypothesized cycles of occupation by farming and herding communities and their flocks between 6100 and 5400 calBC (Horejs et al. 2022). Our focus on the variety of scales, intensities, quantities, and qualities of settling on this river terrace is aimed at a better definition of the so far simple dichotomy of mobility/sedentism for early Neolithic communities in the Balkans. Seasonal rhythm seems the most promising frame in our current studies of aDNA, pollen, faunal, and floral remains contextualized within a micro-morphological and micro-archaeological approach. Seasonal-linked herding management, farming-associated practices like the storage of seeds for the sowing period, and temporarily occupied floors, including remains of a variety of species, hence, are important indicators for modeling the multispecies evidence at the site. This leads us to expect new insights into the cultural transformation process of the Neolithic in the near future. The case study described above and other interdisciplinary projects carried out in Vienna recently (see Cveček and Emra 2021; Cveček 2022, Cveček and Schwall 2022) were the main reasons for organizing an interdisciplinary panel at Vienna Anthropology Days (VANDA) 2022 preceding this collection.

The Seasonal and the Material

The seed for the present collection, "The Seasonal and the Material: Anthropology of Seasonal Practices," was planted by preparing and holding a topical session for VANDA 2022.[4] This took place between September 26–29, 2022, in Vienna as a panel organized by the editors. In line with VANDA's mission, our panel aimed to bring together scholars from vari-

4 https://vanda.univie.ac.at/scientific-program/

ous fields and subfields in anthropology, social sciences, and humanities. With this special issue, we wish that seed to sprout and to continue interdisciplinary discussions on the temporality of human practices. Wherever necessary, it is hoped this will challenge our perspectives on how best to look at human and non-human beings through the lens of temporality and seasonality. Importantly, Tim Ingold (1993) initiated this process of debate and reflection three decades ago by highlighting the temporality of the landscape through the coinage of the "taskscape," later also extended to a seasonal "taskscape", denoting repeated rythms of seasonal butchering practices (Cveček and Emra 2021). Contributions in this issue implicitly follow Ingold's approach and explicitly highlight the temporality of (non-)human practices and the inability to disentangle human practices conceptually from the constantly changing environment, be that geese migration, freezing of rivers, changing of the grazing land and/or political economy.

"The Seasonal and the Material" is an experiment in translation. According to the Oxford Learner's Dictionary, an experiment is the following: 1) "a scientific test that is done in order to study what happens and to gain new knowledge" or 2) "a new activity, idea or method that you try out to see what happens or what effect it has."[5] In our case, the experiment followed both definitions. Our aim was to 1) test what new knowledge can be generated when we bring scholars working in different regions and specialists in different periods to interact through a cross-cutting lens and see 2) what happens when scholars apply seasonality as that cross-cutting lens to their ethnographic and archaeological material. For our panel in Vienna, we asked participants to follow the Pecha Kucha style of presentations, in which presenters had approximately seven minutes to present their research, followed by a short question and answer round. In the final discussion round, the panel organizers, presenters, and the audience formed a circle in which participants shared their thoughts and reflections on the panel. The initial short format of presentations was also the main reason for keeping contributions to this special issue short and continuing to experiment with a new method of publishing, which was generously facilitated by *Anthropos* journal's editor.

Quite a few new methodological insights regarding seasonality were generated by these interactive academic processes in Vienna. Panelists ascribed one of the main differences regarding seasonality to the nature of the

5 The definition taken from Oxford Learner's Dictionary: https://bit.ly/3M7vGAI

material that archaeologists and socio-cultural anthropologists respectively study. For example, within the archaeological trench, hundreds of years may "collapse" within a few centimeters of anthropogenic layers. Therefore, archaeologists are challenged to "find" and identify seasonality by using already provided scientific data as well as by developing potential new state-of-the-art methods, even though archaeological fieldwork is usually seasonal (see Krause, this issue). By contrast, ethnographers may stay a few seasons in the field or return to the same place in the same season (see Schweitzer, this issue). For most of them, it becomes obvious by experience how different a place may become during each season (e.g. winter, summer, spring, or autumn as well as other locally defined seasons). Therefore, we are convinced that integrating seasonal practices into these interdisciplinary reflections can shed new light on past and present societies regarding subsistence and political economy. Seasonal practices, such as the harvesting of fruits, goose hunting, or the seasonal use of electricity, shape human dwelling in the world.

The classification of "four seasons," which was just reiterated above, in itself requires critical reflection. Not only because, as such, it applies exclusively to the moderate zones around the globe north and south of the equator, hence this particular variety of seasonality as four equivalent if not quasi-harmonious seasons cannot claim any universality but has to be changed not only according to given regionalities within global contexts but also in relation to climatic history and its main periods and phases. Moreover, the respective "seasons," beyond their geographic and temporal positioning, are also a challenge as soon as they require being addressed as linguistic and mental constructs. Such a move/an approach is possible for most socio-cultural anthropologists but almost impossible for most archaeologists, who will usually find it more adequate to elucidate seasons as practices rather than as concepts.

The answer to how archaeologists may better understand seasonality does not only lie in developing new methods through state-of-the-art interdisciplinary collaboration with natural sciences. Beyond that, archaeologists should also become more open to searching actively for seasonal practices within the ethnographic record. These practices may or may not be the same as those we can observe in the same place today, and therefore, ethnographic analogies with the present can be drawn only in exceptional places. Cross-cultural ethnographic literature, however, may help archaeologists understand the importance of seasonality in societies comparable

to those studied by archaeologists, which could, in turn, promote an understanding of seasonal cycles and rhythms also in deep history.

Discussion

At VANDA 2022, Thomas Hylland Eriksen delivered the opening keynote. He stated that every good conference should end with making one new friend, hearing one good paper, and learning something new. Apart from creating new friendships between the panelists and contributors to this special issue and hearing many good presentations, there are several take-home messages that our panel participants generated in Vienna. First, the panel contributed to the anthropological understanding of cultural change and the tradeoff between seasonality and monotony. Change and stability can come from both monotony and seasonality. The monotonous lives, however, that we live today (in offices) are not the norm (see Krause, this issue). Participants were convinced that there is a need for more collaboration between socio-cultural anthropology and archaeology. Social anthropologists highlighted the need to remain humble regarding timescales when compared to archaeologists. All presentations have also highlighted the need for seeing seasonal changes in economic, political, and cultural contexts simultaneously.

There was a persistent call for help raised by archaeologists to socio-cultural anthropologists. The editors, however, do not believe that socio-cultural anthropology has all the tools necessary to equip archaeologists with a better understanding of seasonality. In our view, ethnography, as a key tool, has the power to shift perceptions from monotonous to more dynamic perceptions of excavated finds. Such "added value" of ethnography as representing "varied and heterogeneous reasons or causes for a practice," (Ucko 1969) has been recognized by some archaeologists. At VANDA, archaeologists voiced their wish that questions generated within archaeology would also hopefully become of more interest to socio-cultural anthropologists in the future by means of generating collaborative results as well as jointly tackling "hot topic research questions." The fact that the nature of most archaeological work is seasonal, which most archaeologists are not aware of, is the final takeaway message. This could be due to a lack of discussions on positionality and situated knowledge (see Haraway 1988) in archaeology. Beyond working on seasonality, archaeologists may, therefore, also need to invest more into addressing questions of positionality, namely actively

reflecting on the question of which biases are shaping their modes of thinking and how their socio-political as well as economic backgrounds are molding their ways of seeing the world. Overall, both disciplines working together have the power to evaluate old models and to create new solid ones for discussing "The Seasonal and the Material. Anthropology of Seasonal Practices."

Preview

Essays in this issue include case studies ranging across eight countries and span the time from prehistory until today. The opening essay by Franz Krause makes an ethnographically grounded appeal to archaeologists to prioritize seasonality in their analyses, considering that archaeological fieldwork is also a seasonal practice.[6] Based on the case study of Kalasha in Hindu Kush-Karakorum, Augusto Cacopardo highlights the key role of seasonality in the maintenance of gendered practices and spaces between the permanent villages (mixed gender) and seasonal summer pastures (only male). Francesca Rail coins a category of "cowless shed" that includes material remains of seasonal practices intertwined with communal rights granted by the Habsburg Empire in the Austrian region of Tyrol. Clirimtare Januzaj highlights the importance of pastoralism and the seasonal harvest of wild fruits and nuts in the mountains of Isniq in Kosovo for subsistence and maintaining a connection with ancestors. Through ethnographic accounts of two villages in Iran, Wulf Frauen questions the paradox between permanent and seasonal as well as immobility and mobility by showing how pastoral history shapes villagers' identities today.

A few archaeological case studies contain introductory essays based on ethnographic insights. Hojjat Darabi discusses the various forms of Neolithic occupation, including the evidence for seasonal and permanent settlements, in western Iran c. 10,000–6,000 BC. Laura and Oliver Dietrich speak of seasonal peaks at the early Neolithic Göbekli Tepe, which Wulf Frauen furthermore contextualizes through the concept of Resource Cultures, developed within the SFB 1070 project at the University of Tübingen. Inspired by the interactionist model of Resource Cultures, unique archaeo-

6 Even love can be seasonal. For example, an interlocutor shared with the first author of this chapter that participating in an international excavation enabled them to work with excellent international researchers, excavate a fascinating site, and find a 'summer love' without strings attached, between different excavation campaigns.

logical evidence for the seasonal use of open-air pottery workshops in the Iron Age (8th–5th century) in the northern Apennines in Italy, is presented by Raffaella Da Vela.

Following these archaeological cases, the last three articles are based on historical anthropology and a literature review. Andre Gingrich examines seasonality in Southwest Arabia's Late Pre-Islamic Era through a socio-cultural anthropological overview of what is known through archaeology and philology. Peter Schweitzer reflected on his own longstanding engagement with the (Alaskan) Arctic in an essay dealing with human and more-than-human cycles of engagements with seasons, seasonality, and seasonal rounds in the region. Finally, Peter Rohrbacher concludes the current collection with a historiography of interdisciplinary discourses in Vienna dating back to the early 20th century, under the umbrella of culture circle debates (*Kulturkreislehre*).

Peter Rohrbacher's article is crucial in highlighting that there is a longstanding tradition of scholarly interaction between archaeologists and socio-cultural anthropologists in Vienna. Such interactions have also been recently re-established through several PhD and postdoctoral research projects (see Cveček and Emra 2021; Cveček 2022; Cveček and Schwall 2022). They aim at bridging the gap between the two disciplines, or sub-disciplines for those among us who consider anthropology as a four-field discipline. Our subtitle "Anthropology of Seasonal Practices," aims at conveying a certain intersection, if not unity between these two (sub)disciplines. As this special issue shows, there is an enduring need to continue a close dialogue between them. This may unfold through ethnography, excavations, historiography, and various other approaches. Such dialogues will allow us to coin new categories and unpack already established ones with a shared aim of a better understanding of human diversity of dwelling in the world in both the past and the present.

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References Cited

Asouti, Eleni, and **Dorian Q. Fuller**
2011 From Foraging to Farming in the Southern Levant. The Development of Epiplaeolithic and Pre-pottery Neolithic Plant Management Strategies. *Vegetation History and Archaeobotany* 14: 534–541.

Ávila-Arcos, Maria C., Constanza de la Fuente Castro C., Maria Nieves-Colón A., et al.
2022 Recommendations for Sustainable Ancient DNA Research in the Global South: Voices From a New Generation of Paleogenomicists. Frontiers in Genetics 13:880170. [doi.org/10.3389/fgene.2022.880170].

Bailey, W. Doug
1999: The Built Environment. Pit-Huts and Houses in the Neolithic. *Documenta Praehistorica* 26: 153–162.

Bánffy, Eszter
2019 First Farmers of the Carpathian Basin. Changing Patterns in Subsistence, Ritual and Monumental Figurines. [*Prehistoric Society Research Papers* 8]

Borić, Dušan, Thomas Higham, Emanuela Cristiani, et al.
2018 High-Resolution AMS Dating of Architecture, Boulder Artworks and the Transition to Farming at Lepenski Vir. *Scientific Reports* 8: 14221.

Braidwood, Robert J.
1960 The Agricultural Revolution. *Scientific American* 203/3: 130–152.

Broodbank, Cyprian
2013 The Making of the Middle Sea. A History of the Mediterranean from the Beginning to the Emergence of the Classical World. London: Thames and Hudson.

Conard, Nicholas J., Jordi Serangeli, Utz Bohner, et al.
2015 Excavations at Schöningen and Paradigm Shifts in Human Evolution. *Journal of Human Evolution* 89: 1–17.

Crate, Susan A., and **Mark Nuttall** (eds.)
2016 Anthropology and Climate Change: From Encounters to Actions. London: Routledge.

Cveček, Sabina
2024 Why Kinship Still Needs Anthropologists in the 21st Century. *Anthropology Today* 40: 3–6. [doi.org/10.1111/1467-8322.12861]

Cveček, Sabina
2022 Çukuriçi Höyük 4. Household Economics in the Early Bronze Age Aegean. Vienna: Austrian Academy of Sciences Press. [*Oriental and European Archaeology* 25] [doi.org/10.1553/978OEAW87332]

Cveček, Sabina, and **Christoph Schwall**
2022 Ghost Children: Delayed Personhood and Culture-specific Models of Infancy in Western Anatolia. *Praehistorische Zeitschrift* 97: 544–570. [doi.org/10.1515/pz-2022-2044]

Cveček, Sabina, and **Stephanie Emra**
2021 Rhythms of Seasonal "Taskscapes" at Early Bronze Age Çukuriçi Höyük. *Tijdschrift voor Mediterrane Archeologie. TMA Supplement* 2: 42–49.

Douglas, Mary
1970 Natural Symbols. Explorations in Cosmology. New York: Pantheon Books.

Evans-Pritchard, Edward Evan
1940 The Nuer. A description of the Modes of Livelihood and Political Institutions of a Nilotic People. Oxford: At the Clarendon Press.

Firth, Raymund
1967 The Work of the Gods in Tikopia. New York: Routledge. [1939]

Furholt, Martin
2021 Mobility and Social Change: Understanding the European Neolithic Period after the Archaeogenetic Revolution. *Journal of Archaeological Research* 29: 481–535. [doi.org/10.1007/s10814-020-09153-x]

García-Escárzaga, Asier, Igor Gutiérrez-Zugasti, Adolfo Cobo, et al.
2019 Stable Oxygen Isotope Analysis of Phorcus lineatus (da Costa, 1778) as a Proxy for Foraging Seasonality during the Mesolithic in Northern Iberia. *Archaeological and Anthropological Sciences* 11/10: 5631–5644.

Godelier, Maurice
1986 The Mental and the Material Thought, Economy, and Society. London: Verso.

Graeber, David, and **David Wengrow**
2021 The Dawn of Everything. A New History of Humanity. London: Penguin Books.

Greenfield, Haskel J., and **Tina L. Jongsma Greenfield**
2014 Subsistence and Settlement in the Early Neolithic of Temperate SE Europe: a View from Blagotin, Serbia. *Archaeologia Bulgarica* 18/1: 1–33.

Haraway, Donna
1988 Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies* 14/3: 575–599.

Hastrup, Kirsten
2009 The Question of Resilience. Social Responses to Climate Change. Copenhagen: The Royal Danish Academy of Sciences and Letters.

Hecht, Susanna, and **Alexander Cockburn**
2010 The Fate of the Forest. Developers, Destroyers, and Defenders of the Amazon. Chicago: University of Chicago Press.

Hoernes, Moritz
1892 Urgeschichte des Menschen. Wien: Hartleben's Verlag

Horejs, Barbara
2019 Long and Short Revolutions towards the Neolithic in Western Anatolia and Aegean. *Documenta Praehistorica* 46: 68–83. [doi:10.4312/dp.46.5]
2024 Multispecies Mobility in the Neolithisation of Southeast Europe. Old Questions, New Methods. In: H. Piezonka, J. Schneeweiß, M. Nawroth, and H. Schwarzberg (eds.), You Only See What You Know, You Only Know What You See. Global Historic Perspectives on Intercultural Phenomena of Mobility; pp. 375–392. Rahden: VML. [*Berliner Archäologische Forschungen* 23]

Horejs, Barbara, Alexandar Bulatović, Jelena Bulatović, et al.
2022 New Multi-disciplinary Data from the Neolithic in Serbia. The 2019 and 2021 Excavations at Svinjarička Čuka. *Archaeologia Austriaca* 106: 255–317.

Horejs, Barbara, Bogdana Milić, Felix Ostmann, et al.
2015 The Aegean in the Early 7th Millennium BC. Maritime Networks and Colonization. *Journal of World Prehistory* 28/4 289–330. [doi:10.1007/s10963-015-9090-8]

Ingold, Tim
1993 The Temporality of the Landscape. *World Archaeology* 25/2: 152–174.

Kemp, Barry J.
2006 Ancient Egypt. Anatomy of a Civilization. London and New York: Routledge.

Key, Felix M., Cosimo Posth, Luis R. Esquivel-Gomez, et al.
2020 Emergence of Human-adapted Salmonella Enterica is Linked to the Neolithization Process. *Nature Ecology & Evolution* 4: 324–333. [doi.org/10.1038/s41559-020-1106-9]

Kobayashi, Tatsuo, Simon Kaner, and **Nakamura Oki**
2003 Jomon Reflections. Forager Life and Culture in the Prehistoric Japanese Archipelago. Oxford: Oxbow Books.

Kowal, Emma, Laura Wyrich S., Juan Manuel Argüelles, et al.
2023 E Community Partnerships are Fundamental to Ethical Ancient DNA Research. *Human Genetics and Genomics Advances* 4:100161. [doi.org/10.1016/j.xhgg.2022.100161]

Krause, Franz
2013 Seasons as Rhythms on the Kemi River in Finnish Lapland. *Ethnos* 78/1: 23–46.

Kristiansen, Kristiansen
2014 Towards a New Paradigm? The Third Science Revolution and its Possible Consequences in Archaeology. *Current Swedish Archaeology* 22/1: 11–34.

Lapteff, Sergey
2006 Relationships between Jōmon Culture and the Cultures of the Yangtze, South China, and Continental Southeast Asian Areas. *Japan Review* 18: 249–86.

Lévi-Strauss, Claude
1964 Mythologiques I: Le cru et le cuit. Paris: Plon.
1967 Mythologiques II: Du miel aux cendres, Paris: Plon.
1968 Mythologiques III: L'origine des manières de table. Paris: Plon.
1971 Mythologiques IV: L'homme nu. Paris: Plon.

Lien, Marianne Elisabeth
2015 Becoming Salmon: Aquaculture and the Domestication of a Fish. Los Angeles: University of California Press.

Mauss, Marcel
2004. Seasonal Variations of the Eskimo: A Study in Social Morphology. New York: Routledge. [1906]

Morozova, Irina, et al.
2020 New Ancient Eastern European Yersinia Pestis Genomes Illuminate the Dispersal of Plague in Europe. Philosophical Transactions of the Royal Society B: Biological Sciences.
<https://royalsocietypublishing.org/doi/10.1098/rstb.2019.0569>[27.10.2023]

Munn, Nancy D.
1992 The Fame of Gawa. A Symbolic Study of Value Transformation in a Massim (Papua New Guinea) Society. Durham: Duke University Press.

Nurmi, Risto, Jari-Matti Kuusela, and **Ville Hakamäki**
2020 Swedenization of the North. The Early Medieval Swedish Northern Expansions and the Emergence of the Birkarls, Acta Borealia 37/1–2: 1–26.

Perlès, Catherine
2016 Food and Ornaments: Diachronic Changes in the Exploitation of Littoral Resources at Franchthi Cave (Argolid, Greece) during the Upper Palaeolithic and the Mesolithic (39,000–7000 cal BC). *Quaternary International* 407: 45–58.

Rappaport, Roy A.
1968 Pigs for the Ancestors. Ritual in the Ecology of a New Guinea People. New Haven: Yale University Press.

Riehl, Simone
2016 The Role of the Local Environment in the Slow Pace of Emerging Agriculture in the Fertile Crescent. *Journal of Ethnobiology* 36: 512– 534.

Rost, Stephanie
2017 Water Management in Mesopotamia from the Sixth till the First Millennium B.C. *WIREs Water*: 1–23.

Sahlins, Marshall D.
2008 The Stranger-King or, Elementary Forms of the Politics of Life. *Indonesia and the Malay World* 36/105: 177–199.

Somel, Mehmet, Ezgi Altınışık N., Füsün Özer, et al.
2021 Collaborate Equitably in Ancient DNA Research and Beynd. *Nature* 600: 37.

Stensrud, Astrid B., and **Thomas Hylland Eriksen** (eds.)
2019 *Climate, Capitalism and Communities.* London: Pluto.

Tsing, Anna Lowenhaupt
2015 The Mushroom at the End of the World. On the Possibility of Life in Capitalist Ruins. Princeton: Princeton University Press.

Ucko, Peter
1969 Ethnography and Archaeological Interpretation of Funerary Remains. *World Archaeology* 1: 262–280.

Wilkinson, Toby
2014 Tying the Threads. Trans-regional Routes and Material Flows in Transcaucasia, Eastern Anatolia and Western Central Asia, c. 3000-1500 BC: Leiden: Sidestone Press.

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Serbia. The 2019 and 2021 Excavations at Svinjarička Čuka. *Archaeologia Austriaca* 106 (2022 – in cooperation with Aleksandr Bulatović, et al.); "Long and Short Revolutions towards the Neolithic in Western Anatolia and Aegean. *Documenta Praehistorica* 46 (2019); "Migrating and Creating Social Memories. On the Arrival and Adaptation of the Neolithic in Aegean Anatolia." *Oriental and European Archaeology* 12 (2019).

Against Monotony:

An Argument for the Primacy of Seasonal Practices

Franz Krause

Abstract. – This essay suggests that social life is inherently seasonal. It proposes that assuming the general monotony of practices, livelihoods, and settlement patterns is flawed and problematic. To substantiate this proposition, the essay provides short ethnographic insights into hydroelectricity generation in Northern Finland, tourism in an Estonian wetland area and travelling in a river delta in Arctic Canada. Because of the fundamentally rhythmic temporality of the landscape, including the behavior of water, animal movements, temperatures and electricity consumption, life is always seasonal. Inhabiting seasonality is less about the succession of distinct phases than about attentive perception and anticipation in a continually transforming world. [*Kemi River, Soomaa, Mackenzie Delta, seasonality, water, rhythm,*]

Introduction

With all the current discourse about change, instability, and mobility, it is striking that these terms often figure as secondary phenomena. Mobility is habitually construed as movement between fixed places, instability as the erosion of originally stable phenomena, and change as the difference between one state and another. Similarly, in academic practice, a more or less implicit search for patterns and permanence can be discerned. For example, when archaeologists encounter material evidence of ways of life long past, they seem to assume, first of all, that these structures or tools were used all year round. If they believe that these things might point to ephemeral practices, they must present evidence of this alleged exception.

This essay aims to decenter the implicit assumption of monotony in common suppositions of social life. It suggests that life is fundamentally seasonal, resonating with landscape dynamics and a host of other rhythmic processes. To make this argument, the essay first outlines the monotony axiom and archaeological attempts to introduce seasonality into its theoriz-

ing. Following a very short glimpse into anthropological work about the seasons, it sketches three cases from the author's long-term ethnographic fieldwork that highlight the seasonality inherent in social practices related to water: hydroelectricity generation in Finland, wetland tourism in Estonia and transport infrastructure in Canada.

The Monotony Axiom

Over the past decades, a sophisticated set of methods used to trace seasonal occupations and activities has been developed in archaeology (Monks 1981), often with a focus on seasonal mobility and intermittent site occupation (e.g. Rocek and Bar-Yosef 1998). But the erudition of these methods and arguments ascertaining seasonal movements only confirms that the idea of a monotony of life, where things happen basically in the same way all year round, appears to be the norm. Seasonal practices, where people do different things in different ways at different places throughout the year, seem to require further explanation than monotony.

Some archaeologists investigating evidence from wetland environments (e.g. O'Sullivan and Van de Noort 2007) have been at the forefront of emphasizing the seasonality of occupations, movements, and practices as these correspond with the rhythmic ebbs and flows of wetness. Paying attention to water movements enables what Matt Edgeworth has called an "archaeology of flow" (2011) that focuses on the processual aspects of landscape rather than on fixed sites, practices, and artifacts. Michael Leadbetter's (2021) argument for understanding "urbanism as process" is a recent innovative example of this dynamic approach to interpreting archaeological remains. Investigating evidence from ancient coastal and riparian cities in the Philippines, Cambodia, China and Mexico through the lens of "process archaeology," Leadbetter identifies an "amphibious-urbanism" characterized by movements resonating with tidal and seasonal water flows.

While the assumption of a general monotony of life – unless proven otherwise – is undermined by these and similar works, it remains surprising that the monotony axiom has ever held such sway over archaeological thinking, given that archaeological practice (e.g. Edgeworth 2006) is profoundly seasonal itself: work tends to be structured into intense "field seasons," mostly in the summer, where digs and discoveries happen, and calmer periods of sorting and analyzing the material during the rest of the year. While much of the archaeologists' physical work happens during the

field season, their thinking, theorizing, and writing seems to happen in the "off-season," in enclosed, air-conditioned, artificially lit offices and labs that have no space for seasonal dynamics. Perhaps this labor rhythm, although itself seasonal, has contributed towards marginalizing the seasonality in the archaeological record and displaced it with the monotony characteristic of lab and office routines.

Seasonal Anthropology

However, most of the world is not monotonous, but rhythmic. And the seasons are an important aspect of this rhythmic dynamic. It is perhaps no coincidence that Tim Ingold's argument about "The Temporality of the Landscape" (1993) was originally published in an archaeology journal. The plea for foregrounding the rhythms that emerge from people's responsive attention to each other and to meteorological, ecological and terrain dynamics has been taken up by archaeologists, anthropologists, and geographers alike and has corresponded with recent work in many other fields. Speaking across these disciplines, Ingold's article can form a solid base for thinking about the seasonal and the material.

Ingold uses Pieter Bruegel the Elder's 1565 work "The Harvesters" to illustrate his thoughts, demonstrating how even a landscape painting with a sleeping person at its center is a document to a bustling set of seasonal activities and processes, as various people pursue their tasks. It is an equally agricultural practice that lies at the root of the English word "season", namely "to sow" in Latin. Both imply that seasons are not simply a function of meteorological shifts but emerge out of people's attention and perception towards a rhythmically transforming world and its dynamic affordances enabling particular practices during certain periods while hindering them during others.

The other cornerstone of my argument for the primacy of seasonal practices comes from my ethnographic fieldwork, where I learned about seasons and seasonality from people who deal with water-related dynamics on an everyday basis and have cultivated a keen awareness of watery rhythms (see Fig. 1). Understanding the seasonality of social life in relation to water-related dynamics has a long, if marginal, history in anthropology, going back at least as far as E.E. Evans-Pritchard's research with the Nuer (1940) in what is today South Sudan. Evans-Pritchard analyzed how Nuer economic, domestic and ritual practices corresponded with the extent of

flooding along the Upper Nile. More recently, Mark Harris (1998) demonstrated how the sociality of an Amazonian floodplain village is attuned to the rise and fall of the water levels. Harris convincingly argued that this attunement must not be mistaken for a passive adaptation to different water levels but contributes to an emergence of seasonal practices, emotions and rituals that can be reduced neither to ecological nor cultural logics.

Fig. 1: Boating on the Peel River in the Mackenzie Delta, Canada (F. Krause)

Anthropological and related research also shows beyond doubt that seasonality is not limited to small-scale Indigenous communities but is an important aspect of life in modern, industrial society, too (Palang et al. 2007). Even ostensibly permanent infrastructures can be evidence of seasonal practices, including large airports that facilitate seasonal holidays, agricultural fields that necessitate seasonal labor forces, and reservoirs for fuel, foodstuffs or water that contend with seasonal rhythms of production and consumption.

Kemi River Hydropower

The first snippet from my own research comes from the Kemi River, the largest watercourse in Finnish Lapland (Krause 2023). Its famous tradition of large, seasonal salmon fishing weirs, constructed each summer and deconstructed each autumn, has probably not left a substantial archaeological record. While its gigantic hydropower dams are more likely to appear in archaeological investigations of the future, these buildings may fall prey to the assumption of monotony, if they are understood merely as powerful interruptions in the river's flow. In fact, operating hydropower dams is a profoundly seasonal practice because both the amount of water in the river and the demand for electricity on the grid fluctuate seasonally (Krause 2013).

In the Kemi, water discharge in spring is at least ten times the amount of discharge in the winter. But it is in the winter that electricity consumption is at its highest. For Kemi River hydropower managers, the ultimate test of the country's electricity grid happens annually on Christmas Eve, when the large majority of Finns have their roast in their electrical ovens, are heating their electrical saunas, and electrical lights are brightening up the dark winter. This is usually when the least amount of water flows in the river because it is covered in ice and the water that would feed it during summer and autumn falls as snow and does not flow into the watercourse. Hydropower dams and reservoirs, although ostensibly inert structures, perform a crucial role in mediating the seasonalities of water flow and electricity use.

Soomaa's Fifth Season

A second example comes from the Soomaa region of Estonia. This area is known for its frequent flooding, especially in spring, and for its generally wet terrain, which contributed to its marginalization during Soviet-era modernization and post-Soviet neo-liberalization. However, a creative group of local entrepreneurs have begun to make a tourism destination from Soomaa's wetness (Tooman and Ruukel 2012), based on a local expression that called the annual floods Soomaa's "fifth season" and applying this term to all periods when the local rivers spill over their banks. Estonia has no major school breaks during the time of the highest floods in spring, and other floods can happen at any moments. The main challenge for the

tourism entrepreneurs is therefore to coordinate rigid weekends and public holidays with highly unpredictable days of high water (Krause 2022a).

The fifth season only happens successfully when high water and free days coincide, and when the tourism entrepreneurs can plan their activities, prepare canoe trips and advertise them in advance. One of them has therefore developed a sophisticated system of observing and forecasting water levels and manages a social media presence that alerts potential clients, most of whom live in cities or even abroad, when floods are imminent or the "fifth season" is coming. Then begins a very busy period of preparing canoes, coordinating visitor groups, and marking trails through the flooded forests that are being marketed as the "Estonian Amazon." Without this work bringing people, floods, and equipment together in space and time, the "fifth season" would remain local folklore rather than a regional spectacle.

Mackenzie Delta Travels

My final example comes from the Mackenzie Delta, in the Gwich'in and Inuvialuit settlement regions of Canada's Northwest corner. Arctic seasonality corresponds, to some degree, to the shifts between liquid water and water in the form of snow and ice. How these different manifestations of water correspond with different forms of social life had already fascinated Marcel Mauss (1979 [1906]) who found that across the circumpolar North, Inuit communities live in seasonally strikingly different ways: concentrated in large groups in the winter, when major rituals and celebrations take place, and scattered into small family units in the summer. More than a century after Mauss's original publication, life in the Arctic continues to be marked by profound seasonalities (Schweitzer, this issue).

The Mackenzie Delta, for example, is connected to the Canadian road network for around four months each year – from Christmas to late April, when the ice on the river channels is thick enough for a road. During the rest of the year, people travel to and from the delta mostly by boat or by small airplane. Only in the transitory periods, when ice is building up but is still unsafe to travel, and when it is disintegrating, yet blocking the waterways, travel and transport are reduced to a minimum (Krause 2022b). Life in the Mackenzie Delta is thoroughly seasonal, with different places that people frequent, different activities they pursue and different animals they follow. A large caribou herd passes by the delta in late summer, and this animal tastes especially nice in autumn. During winter, people trap

fur-bearing animals in the delta, and some hunt muskoxen in the adjacent hills; early spring is muskrat season and occasion for many competitions, followed by the geese hunt. Then comes summer fishing, whaling at the coast, festivals in different places, then autumn moose season. As in other seasonal worlds, all these activities are not simply the result of ecological stimuli to which people adapt their movements and practices because, for example, the caribou hunting season requires both caribou and caribou hunters eager to bring home meat.

Fig. 2: A truck speeding along an ice road on the Peel River in the Mackenzie Delta, Canada. Not that this is the same river as in fig. 1, during a different time of year (F. Krause)

A case in point is the seasonal ice road (Fig. 2) in the delta. Despite all the uncertainties of ice formation in early winter, where warm spells, high water, or a thick snow cover may prevent the accumulation of a thick, smooth, and reliable ice cover on the watercourses, the ice road has always been ready by Christmas. Climate change researchers have measured that the frozen period in the delta has decreased a few days in recent decades (Lesack et al. 2013), but the annual date of ice road inauguration has remained the same. This is due to the immense labor that goes into building the ice road, which a local contracting firm performs, knowing that

their friends and relatives need the ice road to visit each other over the Christmas holidays. For example, the firm ploughs the snow on the river channels so that they freeze better, or pumps water onto the surface to increase ice thickness. The employees navigate a route through stretches of rough ice and communicate with the Highways Department to check and finally authorize the condition of the ice road in time. The ice road season thereby emerges as a phenomenon facilitated by highly valued Christmas visiting, meteorological conditions, heavy-duty work and administrative oversight. Ice road traffic is much more than an adaptation to a condition characterizing part of the year.

Seasonality Instead of Seasons

It is tempting to map out these seasonal activities on calendars that divide up the year into a number of sections (Orlove 2003). The modern European calendar has four seasons, Soomaa tourism entrepreneurs promote an additional fifth season, and the Sámi of northern Scandinavia have been called the "people of eight seasons" (Manker 1975). Inuit and Gwich'in calendars that depict the variety of seasonal activities, usually in a circular image, have become popular items in Northern Canada and beyond to demonstrate that life is everything but monotonous, and that even the European classification of four seasons may be inadequate to capture the profound seasonality of people's lives.

However, as Deborah Rose (2005) has cautioned, arranging seasonal life into a neat circle may be a problematic misrepresentation of how seasonality plays out in real life. Rose had conducted extensive research with Indigenous Australians, whose seasons speak to the relations between various life forms including trees, flying foxes, bugs, and the Rainbow Serpent. But mapping them out misses the point of inhabiting seasonality. For many people and in many places, seasons are profoundly uncertain, in that they may or may not materialize, may come too early or too late, or not in one continuous event, like when an early flowering of trees is destroyed by a late frost spell. In fact, the mechanical, schematic group of seasons on a seasonal calendar can itself be seen as an instantiation of the monotony axiom, speaking more to Western archaeologists' experience in the lab and office season than to the vagaries of the changing weather around their field sites and the lives of their former inhabitants.

Conclusion

In sum, I hope that these snippets and inspirations illustrate how life in the world outside of offices and other artefacts of industrial modernity is never monotonous but always profoundly seasonal. In fact, some of the infrastructures and practices that enable the very assumption of monotony – by facilitating uninterrupted electricity supply, for example – are fundamentally seasonal. Therefore, researchers should shed the assumption that phenomena are generally constant unless proven unstable, fixed unless proven mobile, or used in the same way year-round unless proven seasonal. When archaeologists encounter, for example, a granary, they might first think of the harvest season when it was being filled, the lean season when it was almost empty, the rainy season when its walls needed repair, and many other seasons – before considering the archaeological record foremost as monuments of monotony.

References Cited

Edgeworth, Matt (ed.)
2006 Ethnographies of Archaeological Practice. Cultural Encounters, Material Transformations. Lanham, MD: AltaMira Press.

Edgeworth, Matt
2011 Fluid Pasts. Archaeology of Flow. London: Bristol Classical Press.

Evans-Pritchard, Edward E.
1940 The Nuer: A Description of the Modes of Livelihood and Political Institutions of a Nilotic People. Oxford: Oxford University Press.

Harris, Mark
1998 The Rhythm of Life on the Amazon Floodplain. Seasonality and Sociality in a Riverine Village. *The Journal of the Royal Anthropological Institute* 4/1: 65–82.

Ingold, Tim
1993 The Temporality of the Landscape. *World Archaeology* 25/2: 152–74.

Krause, Franz
2013 Seasons as Rhythms on the Kemi River in Finnish Lapland. *Ethnos* 78/1: 23–46.
2022a Rhythms of Wet and Dry. Temporalising the Land-Water Nexus. *Geoforum* 131: 252–59.
2022b Inhabiting a Transforming Delta: Volatility and Improvisation in the Canadian Arctic. *American Ethnologist* 49/1: 7–19.
2023 Thinking Like a River. An Anthropology of Water and Its Uses Along the Kemi River, Northern Finland. Bielefeld: Transcript.

Leadbetter, Michael P.
2021 The Fluid City. Urbanism as Process. *World Archaeology* 53/1: 137–57.

Lesack, Lance F. W., Philip Marsh, Faye E. Hicks, and **Donald L. Forbes**
2013 Timing, Duration, and Magnitude of Peak Annual Water-levels during Ice Breakup in the Mackenzie Delta and the Role of River Discharge. *Water Resources Research* 49/12: 8234–49.

Manker, Ernst M.
1975 People of Eight Seasons. The Story of the Lapps. Gothenburg: Nordbok.

Mauss, Marcel
1979 Seasonal Variations of the Eskimo. A Study in Social Morphology. London: Routledge [1906].

Monks, Gregory G.
1981 Seasonality Studies. In: Michael B. Schiffer (ed.), Advances in Archaeological Method and Theory; pp. 177–240. San Diego: Academic Press.

Orlove, Ben
2003 How People Name Seasons. In: Sarah Strauss and Ben Orlove (eds.), Weather, Climate, Culture; pp. 121–40. London: Routledge.

O'Sullivan, Aidan, and **Robert van de Noort**
2007 Temporality, Cultural Biography and Seasonality. Rethinking Time in Wetland Archaeology. In: Catherine Green (ed.), Archaeology from the Wetlands. Recent Perspectives. Proceedings of the 11th WARP Conference, Edinburgh 2005; pp. 67–78. Edinburgh: Society of Antiquaries of Scotland.

Palang, Hannes, et al.
2007 Seasonal Landscapes. Dordrecht: Springer.

Rocek, Thomas R., and **Ofer Bar-Yosef** (eds.)
1998 Seasonality and Sedentism: Archaeological Perspectives from Old and New World Sites. Cambridge, MA: Peabody Museum of Archaeology and Ethnology.

Rose, Deborah
2005 Rhythms, Patterns, Connectivities. Indigenous Concepts of Seasons and Change. In: Tim Sherrat, Tom Griffith, and Libby Robin (eds.), A Change in the Weather. Climate and Culture in Australia; pp. 32–41. Canberra: National Museum of Australia.

Tooman, Heli, and **Aivar Ruukel**
2012 Sustainable Development of a Remote Tourist Destination. The Case of Soomaa National Park, Estonia. In: Philip Sloan, Claudia Simons-Kaufman, and Willy Legrand (eds.), Sustainable Hospitality and Tourism as Motors for Development. Case Studies from Developing Regions of the World; pp. 276–95. London: Routledge.

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The Symbolic and the Material Meaning of Seasonality among the Kalasha of the Hindu Kush (Pakistan)

Augusto S. Cacopardo

The article discusses the role of seasonality among the Kalasha, a small non-Muslim mountain community of Northern Pakistan, which is the last example of a cultural model formerly spread throughout the Hindu Kush/Karakorum before the advent of Islam. The Kalasha symbolic system is based on a pure/impure polarity associating men and herding with harmony with nature and sharing; and women and agriculture with the opposite principles of manipulation of the environment and keeping. The article illustrates how seasonality interplays with gender creating more gendered spaces as men depart for the yearly transhumance, and less gendered spaces as the population concentrates in the main villages in winter. It further reflects on the symbolic meaning of seasonality for Kalasha men, and on its material and psychological impact on the female sphere. [*Pakistan, Hindu Kusch, upland communities, Kalasha, Kafir, seasonality, symbolic anthropology*]

Introduction

The aim of this article is to illustrate how seasonality, in its interplay with verticality in a high mountain environment, reverberates at the symbolic and social levels in the pre-Islamic cultures of the Hindu Kush/Karakorum. We shall see that seasonality is intertwined with gender, since the yearly transhumance[1] strictly reserved for men, while symbolically and materially enacting traditional values, strengthens bonds between males and sanctions a separation from women circumscribing a more distinctive female sphere, centered in the village areas. While the material enactment of this separation takes place in the summer months, its most powerful symbolic

1 The use of the term is discussed in Snoy (1993: 50-53). We employ it here in what Snoy calls its "narrower sense," which refers to the movement of the herds of a sedentary people and their shepherds, and not to the "seasonal migration of herds and people between settlement and utilization areas in the mountains…" (Ibidem: 52).

enactment takes place in winter, when during the Winter Solstice Festival (*Chaumos*) men retire to the goat sheds while the women become the mistresses of the villages.

The Hindu Kush/Karakorum before Islam

Until the 16th century, before the advent of Islam, the vast mountain area stretching from Eastern Afghanistan across Northern Pakistan to the borders of Kashmir was the homeland of a constellation of archaic polytheisms with pre-Vedic roots. It was, and still is, an area by no means homogenous from the point of view of language and culture. No less than twenty languages are spoken there, mostly belonging to the Dardic and Nuristani groups of the Indo-Iranian branch of Indo-European languages. The polytheistic religions practiced in the region in pre-Islamic times, similarly differed in many respects: from the names of the divinities composing the various pantheons, to the cycle and structure of the religious festivals, to the forms of temples and shrines. Yet, in spite of these differences, they had in common a fundamental pastoral ideology (Jettmar 1975: 215–220; A.M. Cacopardo 1985; Parkes 1987), based on an all-pervading pure-impure polarity. This basic imprint brought with it a wealth of common traits, like the sacredness of juniper, the ritual use of wine, the presence of shamans, a strict exogamic rule governing the formation of lineages, the practice of merit feasting connected to a complex system of rank, the confinement of women during menstruation and child delivery. We can say, therefore, that the region in question, in pre-Islamic times, constituted a certainly multifarious, but quite discernible "culture area", which, due to the lack of a specific toponym, we have called Peristan in previous publications (Cacopardo and Cacopardo 2001).[2] We shall see that seasonality plays an important role within the framework of the pastoral ideology characterizing what we may call the "Peristani culture area."

2 Peristan means land of the fairies. A name of pure fantasy we adopted for mere practical convenience, with reference to the belief in fairy-like mountain spirits still widely spread in the region.

The Progress of Islamization and the "Last Kafirs of the Hindu Kush"

The mid-16th century saw the beginning of a process of Islamization, ignited at first by the expansionism of neighboring Central Asian powers based in Kashgar and Yarkand (Holzwarth 1996: 121–123), important trade centers of the Tarim Basin, along the Silk Route. Pressures from Pathan tribals in the south later did the rest. By the end of the 19th century, the last polytheistic stronghold was confined to the mountains of what is today northeastern Afghanistan.[3] The region, called Kafiristan (land of the infidels) (Robertson 1896; Klimburg 1999) by the surrounding Muslim populations, was renamed Nuristan (land of the light) by the Afghan Amir Abdul Rahman Khan who conquered it and forcibly converted it in 1895–1896. After the fall of Kafiristan, the only polytheistic communities left were those of the Kalasha of Chitral, who escaped forced conversion because the principality of Chitral, of which they were subjects, was included in British territory by the Durand Line Agreement of 1893 that fixed the border between the Emirate of Afghanistan and British India. In the following decades, direct and indirect pressures caused many Kalasha to convert (A.M. Cacopardo 1991; A.S. Cacopardo 1991; Cacopardo and Cacopardo 1992), but in the three valleys of Birir (*biríu*), Bumburet (*mumurét*) and Rumbur[4] (*rukmú*), in the Chitral District of Northern Pakistan, a large part of the population still holds on to the ancient religion of their ancestors.

Quite visible traces of the pre-Islamic pastoral ideology can, in fact, still be detected in the customary practices of many converted communities of Peristan (e.g. Hasrat 1996), but only the Kalasha still offer the possibility of observing a living example of the ancient socio-cultural systems that characterized the region before the advent of Islam. Therefore, what appears today as an obsolete worldview, alive only in three valley communities comprising not more than 4000 souls, in a not-so-distant past was a widely followed model in a large area of Central Asia. We shall now enter the intricacies of the Kalasha version of that symbolic system to see the role played in it by seasonality.

3 For a reconstruction of the progress of Islamization in Peristan, see A. M. Cacopardo 2016.

4 These are the Khowar (the main Chitrali language) names, which have become established in the literature. The Kalasha names are given in brackets.

Kalasha Symbolic System

The traditional[5] productive system of the Kalasha is agro-pastoral mountain farming. Agriculture is largely the task of women, while goat herding is strictly reserved for men, to the point that women do not have access to the goat sheds or to the pasture grounds. The pastoral ideology formerly characterizing all the pre-Islamic cultures of our area is based, as mentioned previously, on a fundamental pure/impure polarity (*ónǰeṣṭa* and *prágata* in the Kalasha language). It is an all-pervading polarity manifestly connected to verticality, which has a clear spatial reflection. The sphere of purity includes the wild high mountain grounds, believed to be the abode of fairy-like mountain spirits, who are seen as the rightful owners of the resources offered by the mountains. The wild caprids (markhor and ibex) populating the altitudes are believed to be their domestic animals. To ensure the success of the hunt, hunters must seek the spirits' consent with appropriate rituals. Similarly, the approval of the mountain spirits must be sought when in late spring the herds enter their territory for the yearly transhumance. These beliefs and practices stem from a cosmological view that sees humans not as the masters of nature but as guests among other guests. Therefore, the appropriation of animal and plant resources offered by the wilderness is seen as a violation that calls for ritual atonement. Indeed, appropriate offerings must be made to the mountain spirits not only to kill an animal during a hunt or to exploit the high-altitude grazing grounds but also to chop down one of the majestic conifers growing on the mountains.

The holly oak forest, the goat sheds, in brief all the spaces having to do with herding belong also to the *ónǰeṣṭa* sphere. In the Kalasha symbolic system, herding is ritually superior to agriculture. Herding needs the wild spaces of the mountain pastures and of the holly oak forests, but it does not subvert them: only resources spontaneously offered by the environment are taken. Agriculture, in contrast, is based on the total subversion of nature: the earth is upturned and unwanted vegetal species are outrooted to make room for those that are desired. Agriculture, however, is not *prágata* but belongs to an intermediate sphere, neither *ónǰeṣṭa* nor *prágata*, to which the area of the villages, the territory colonized by humans, also belongs.

5 Major changes are taking place since the 1990s with the introduction of generalized schooling and the consequential search for government posts or other occupations that can ensure a monetary income, like those in forestry or tourism. Such changes, coupled with the increased contact with the surrounding Islamic environment, are putting the traditional system under stress.

The sphere of utmost impurity is spatially confined only to the cemeteries and the *bašáli*, the house to which women retire during menstruation and childbirth. The female gender belongs to this sphere. There is, however, a continuum between the two poles. Not all men are equally *ónǰeṣṭa*, nor are all women equally *prágata*. The *ónǰeṣṭa* peak is reached by virgin boys, while the *prágata* peak is reached by menstruating and delivering women.

The Implications of Seasonality at the Symbolic and Material Levels

In such cultural context, seasonality acquires a symbolic value not always found, (not in parallel terms at least) among mountain peoples. Seasonality has generally the quite concrete function of allowing a community to take full advantage of the resources available in the natural environment surrounding them. Transhumant herding makes use of the most distant high mountain pastures and shifting agriculture exploits fields at all viable altitudes, reaping the fruits in succession. Verticality is a foremost feature of mountain farming (e.g. Viazzo 1990: 34–38).

Kalasha communities, following this vertical movement, seasonally contract and expand. In winter, the human population, with its domestic animals (mostly goats but also small numbers of sheep and cows), is gathered in the villages down-valley. Snow covers the higher fields and the spring and summer pastures. The goats feed on the holly oak forest just above the settlements.[6] With the gradual melting of the snows in late spring, higher fields are put under cultivation and higher pastures open up for the animals. Until, at the peak of summer, the highest crops ripen at altitudes of 2500–3000 meters, and the herds reach the highest pastures way above timberline at 4000–4500 meters ASL. The animals graze there for almost two months, until the gradual descent starts and the winter quarters are reached just after the down-valley harvests.

For the Kalasha, all this is of fundamental importance, of course, but the seasonal movement of herds and people has something more to it. The main phases of the transhumance are accompanied by important ritual events. The great Joshi (*žóši*) spring festival is foremost among these (Schomberg 1938: 53–67; Morgenstierne 1947; Loude 1980: 79–90) – three

6 The Kalasha model of mountain farming does not therefore coincide with the classical model of Frödin's *Alpwirtschaft*, in which the animals spend the winter in stables feeding on fodder from cultivated fields (Viazzo 1990: 44–45).

full days of dancing, singing, and addressing deities and spirits – which marks the beginning of the migration of herds and people towards the higher altitudes and is aimed at warning the mountain spirits of the arrival of humans, asking implicitly their consent. Only slightly less important is the end of summer Uchao (*učáw*) festival (Loude and Lièvre 1987: 193–203), when the production of milk starts to decrease and the shepherds in the high pastures receive replacements after more than two months. In addition to these great celebrations, the arrival at every station of the transhumance is marked by ritual offerings to the fairies of the mountains to ensure their favor.

Fig. 1: Birir Valley, December 2006 – Guru village becoming a female space during the Winter Solstice Festival (A. S. Cacopardo)

The borders between the two spheres shift with the seasons. Male and female spaces separate during the summer months. The female sphere, in the virtual absence of men, expands to the higher fields, and villages and summer hamlets become more gendered spaces. With the arrival of autumn, the female *prágata* sphere gradually contracts and the *ónǰeṣṭa* sphere starts to expand downwards into the valleys. Humans, with their domestic animals, retreat to the winter quarters, where men and women closely mix in everyday village life. The maximum expansion of the sphere of the pure into the human realm takes place at the time of Chaumos (*čawmós*), the great Winter Solstice Festival (Wutt 1983; Loude and Lièvre 1984;

A.S. Cacopardo, 1985; Cacopardo and Cacopardo 1989; Snoy 2008; A.S. Cacopardo 2016; Sperber 2017: 72–128; Pir 2019), when a visiting deity is believed to descend into the valleys. At this time, during the non-gendered winter times in the villages, the separation of the summer season is ritually enacted, with the men virtually retiring to the goat sheds for the central days of the celebration, and the women taking full possession of the village areas (Fig. 1). At this time, when sex is forbidden, insulting obscene songs accompanied by very explicit gestures are exchanged between men and women in an atmosphere of great amusement. Abstinence and provocative sexual songs, as aptly noted by Sperber (Cacopardo and Cacopardo 2023: 171), are great incentives for reproduction, one of the main themes of the feast.

The *ónǰeṣṭa* sphere begins its retreat with the arrival of spring. Spaces again become more gendered when the human community starts to expand, the women moving to the summer hamlets to tend higher altitude fields, and the men gradually ascending the mountains with their herds (Fig. 2) to the high pastures just below the rocky peaks. In those heights, in the summer months, a special society materializes. It is as if the physical movement upwards of seasonality gave material and worldly consistence to the pure world of the gods and spirits. In the high summer pastures, where only males are admitted and only herding and hunting (not agriculture) are possible, in the wilderness of the mountain realm of the fairies, an ideal society based on solidarity between men and on correct relations with the spirits seasonally takes form. In other words, the values at the center of Kalasha cosmology appear to be physically enacted: These are solidarity between members of the community, and harmony with the spirits of nature.

Solidarity between members of the community is enacted because the ownership itself of the pastures is not ascribed to individual families, like that of fields, but is held by the valley communities; and because in the high summer pastures several herds are joined together and put under communal management. The work is organized collectively, with the shepherds taking turns to do the various tasks and with the pooling and subsequent distribution of the milk products. Harmony with the mountain spirits is reached because appropriate rituals are performed to ask permission for the use of the resources offered by the mountains.

Fig. 2: Rumbur valley May 1977. Young men leaving for the summer pastures with their herd and provisions (A. S. Cacopardo)

Kalasha men often depict the high pastures as an earthly paradise. Milk and cheese are in abundance and the most coveted dairy products, such as butter and cream, are always available. The air is cool even at the height of summer and the male company among shepherds is thoroughly enjoyable. Yet, for the young it may not always be easy. The long seasonal separation, while satisfying traditional rules for preserving purity, ignites and kindles at the same time romance between the young that often finds poetical expression in the verbal art performances enacted at religious festivals, especially those at the beginning and end of the summer transhumance.

Conclusion

The Kalasha symbolic system shows the imprint of a male perspective that excludes women from the sphere of purity. Nevertheless, in the Kalasha view, the *prágata* sphere to which the female gender belongs, has nothing to do with the demonic, the sinful, the immoral, or with evil in general. It has

similarly nothing to do with cleanliness or dirt. Indeed, pure and impure are very poor translations of the Kalasha concepts.

Still, women are ritually inferior, and there is a hierarchy between the *ónǰeṣṭa* and the *prágata* spheres. In spite of this, however, and as far as possible in a patrilineal traditional culture, Kalasha women have an agency that allows them to make their own choices in many fields, including the fundamental one of the marriage partner. Thanks to a traditional institution (*aḷaṣìŋ*), women are allowed to abandon the husband chosen for them by their father and elope with the man they love (Parkes 1983; Maggi 2001: 167–212).[7] For Wynne Maggi, an anthropologist who focused her fieldwork on the female world, the choice to elope, or not to, "is the prototypic act that defines Kalasha women's 'freedom'" (Maggi 2001: 9).

For women, seasonality does not have the same symbolic meaning it has for men, but for them too it is highly significant. When the agricultural season begins, Kalasha women start moving across the territory to tend the fields of their families. Genders tendentially separate, because not only young men move to the high pastures but also the elderly go there to enjoy the life of the heights with its abundance of food, good climate, and company. Only the elders who manage community affairs usually stay behind in the villages down-valley, and men are few in the summer hamlets as well. The space of agriculture becomes largely a female world, and with the advance of the season, the female space gets wider and wider. Women must move about to tend fields sometimes quite far apart and to reach the *bašáli* (which is fixed in location) at the time of their monthly period. According to Maggi, this freedom of movement, due to their role in the material production, "is integral to Kalasha women's identity" (Maggi 2001: 81). Seasonality, therefore, cyclically reinforces and enacts women's agency, with an impact maybe more at the material than at the symbolic level.

It appears therefore that for the Kalasha – as formerly for all the other peoples of Peristan – seasonality cyclically opens up and closes down physical spaces that correspondingly become more and less gendered. These physical spaces are at the same time mental spaces with highly meaningful, though radically different, connotations, for women and for men.

7 Yet, there is a price to pay: the new husband must refund the abandoned one with double the bridewealth he originally gave to the father of the girl.

References Cited

Bashir, E. and **Israr-ud-Din** (eds.)
1996 Proceedings of the Second International Hindukush Cultural Conference. Karachi: Oxford University Press.

Cacopardo, Alberto M.
1985 Kalash, gli infedeli dell'Hindu Kush. *L'Universo* 65/6: 700–723.
1991 The Other Kalasha. A Survey of Kalashamun-speaking People in Southern Chitral. Part I: The Eastern Area. *East & West*, 41/1–4: 273–310.
2016 Fence of Peristan. The Islamization of the Kafirs and their Domestication. *Archivio per l'Antropologia e la Etnologia*, 146: 69–101.

Cacopardo, Alberto M., and **Augusto S. Cacopardo**.
1989 The Kalasha (Pakistan) Winter Solstice Festival. *Ethnology*, 28/4: 317–329.
1992 The Other Kalasha. A Survey of Kalashamun-speaking People in Southern Chitral. Part III: Jinjeret Kuh and the Problem of Kalasha Origins. *East & West*, 42/2–4: 333–375.
2001 Gates of Peristan. History, Religion and Society in the Hindu Kush. Rome: IsIAO
2023 (eds.) Roots of Peristan. The Pre-Islamic Cultures of the Hindukush/Karakorum. Proceedings of the Interdisciplinary International Conference held in Rome, 5–7 October 2022. 2 voll. Rome: ISMEO.

Cacopardo, Augusto S. 1985 Chaumos. La festa del solstizio d'inverno. *L'Universo* 65/6: 724–753.
1991 The Other Kalasha. A Survey of Kalashamun-speaking People in Southern Chitral. Part II: The Kalasha of Urtsun. *East & West* 41/1–4: 311–350.
2016 Pagan Christmas. Winter Feasts of the Kalasha of the Hindu Kush. London: Gingko Library.

Hasrat, Gul Murad Khan
1996 Some Ancient Customs of Chitral. In: Bashir and Israr-ud-Din, pp. 181–192.

Holzwarth, Wolfgang
1996 Chitral History, 1540–1660: Comments on Sources and Historiography. In: Bashir and Israr-ud-Din, pp. 117–34.

Jettmar, Karl
1975 Die Religionen des Hindukush. Die Religionen der Menscheit. Vol. 4/1. Stuttgart: W. Kohlhammer.

Klimburg, Maximilian
1999 The Kafirs of the Hindu Kush. Art and Society of the Waigal and Ashkun Kafirs. Stuttgart: Franz Steiner Verlag.

Loude, Jean-Yves
1980 Kalash. Paris : Berger-Levrault.

Loude, Jean-Yves, and **Viviane Lièvre**
1984 Solstice païen. Paris : Presses de la Renaissance.
1987 Fêtes d'été chez les Kalash du Nord-Pakistan : cascades de lait, vin de jambes, berger géniteur. *L'Ethnographie* 83/100–101: 191–220.

Maggi, Wynne
2001 Our Women are Free. Gender and Ethnicity in the Hindu Kush. Ann Arbour: The University of Michigan Press.

Morgenstierne, Georg
1947 The Spring Festival of the Kalash Kafirs. In: R. O. Winstedt (ed.), India Antiqua. A Volume of Oriental Studies presented to J. P. Vogel, pp. 240–48. Leyden: Kern Institute.

Parkes, Peter
1983 Alliance and Elopement. Economy, Social Order and Sexual Antagonism among the Kalasha (Kalash Kafirs) of Chitral. [PhD Thesis Oxford University]
1987 Livestock Symbolism and Pastoral Ideology among the Kafirs of the Hindu Kush. *Man* 22: 637–660.

Pir, Ghiasuddin
2019 Chaumos. The Winter Solstice Festival. In: Sajida Haider Vandal (ed.), From Tsiam to the Hindu Kush. Kalasha People and their Culture. Islamabad: Lahore: THAAP (Trust for History, Arts & Architecture, Pakistan).

Robertson, George S. 1896 The Kafirs of the Hindu Kush. London: Lawrence and Bullen.

Schomberg, Reginald C.F.
1938 Kafirs and Glaciers. Travels in Chitral. London: Martin Hopkinson Ltd.

Snoy, Peter
1993 Alpwirtschaft in Hindukusch und Karakorum. In: U. Schweinfurth (ed.), Neue Forschungen im Himalaya, pp. 49–73. Stuttgart: Franz Steiner Verlag.
2008 The Rites of the Winter Solstice among the Kalash of Bumburet. *Journal of Asian Civilizations* 31/1–2: 36–64.

Sperber Glavind, B.
2017 Balanguru. Mennesker og myter i en kalashalandsby i Hindukush. Mellengard: Forlager mellengard.
2023 The Pure Goats of the Kalasha. In: Cacopardo and Cacopardo (eds.), pp.165-184.,

Viazzo, Pier Paolo
1990 Comunità alpine. Ambiente, popolazione, struttura sociale nelle Alpi dal XVI secolo a oggi. Bologna: Il Mulino.

Wutt, Karl
1983 Chaumos = "Vier Mal Fleisch". Notizen zum Winterlichen Festkalender der Kalash von Bumburet, Chitral. *Archiv für Völkerkunde* 37: 107–48.

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Cowsheds without Cows:

On the Ambivalent Afterlife of Common Property Formalization in the Austrian Alps

Lisa Francesca Rail

Abstract. – This study examines the ambivalent afterlife of common property formalization in the Austrian Alps, focusing on seasonally used pastures in the Salzkammergut region. Investigating the region's history and contemporary land use, I challenge the assumption that official titling and state recognition have mainly protective effects on customary commons. Initiated under the Habsburg empire, the formalization of collective pasture access in Salzkammergut imposed rigid legal frameworks that secured but also constrained commoners' rights. Additionally, it reconfigured the distribution of bargaining power between pasture users and landowners. I argue that the effects of the commons' formalization continue to unfold over time, potentially leading to unanticipated outcomes like cowsheds without cows. Amidst evolving environmental and socio-economic conditions, today, the durable yet inflexible laws governing seasonal pasture use in Salzkammergut set new obstacles to the commons' adaptability and future. This study underscores the necessity of understanding formalization as an inevitably power-laden and continuous process, highlighting the importance of flexible, locally negotiated mechanisms to sustain the commons effectively. *[Austria, agrarian change, commons, property, seasonal pastoralism, formalization]*

At the Trailhead

When you go for a hike on the alpine summer pastures of the Styrian part of Salzkammergut – a region in the heart of Austria – you may notice huts with integrated cowsheds that have never housed any cow.[1] To explain

1 This article is based on research carried out for my PhD project, ongoing at the time of writing. Ethnographic fieldwork conducted in Salzkammergut comprises a summer season (06–09/2022) and six months of recurrent visits. My empirical insights are

this conundrum, I have to tell a story not only about cowsheds but also about the commons, the formalization of landed property in the Habsburg empire, seasonal pastoralism and milk, agrarian change in the Austrian Alps, salt and wood, hunting and power.

The unfolding account will, on the one hand, be an ethnographic and historical portrayal of a peculiar form of seasonal collective land tenure in a pocket of the European Alps. On the other hand, the tale of the cowless cowsheds will also offer an opening for more general thoughts about old agrarian commons and their integration into modern state legislation. The peasant[2] collectives who graze their animals on the mountain pastures in Salzkammergut have to construct their huts with integrated sheds *by law* – even if they never intend to shelter cows in them: Entitled farmsteads hold officially recognized use-right deeds that have ensured their seasonal access to the region's alpine pastures since the 1850s (Holzer 2013, Schiff 1899). These old use-right titles, called *Einforstungsrechte*, precisely define not only the length of the grazing season between June and September. They also include detailed and mandatory descriptions of the design of pasture users' huts – prescriptions that no longer match contemporary farming styles. As we will see, peasant collectives creatively work around their use-right titles' rigidity and utilize their cowsheds in new ways. Yet, the rigid longevity of the *Einforstungsrechte* can also turn (or be turned) against commoners' interests and challenge the seasonal pasture commons'

additionally informed by having worked two summer seasons as an alpine herder and cheese maker, as well as by years of activist engagement with the Austrian chapter of La Vía Campesina.

2 The German word used by my farming interlocutors as self-designation is *Bauer/Bäuerin*. My choice of the terms peasant and peasantry in the English translation rests on two considerations. Firstly, it signposts the relative size of farmsteads in Salzkammergut. Most of my interlocutors practice agriculture as a secondary occupation and own 4–8 cows, heifers, and oxen that they feed from less than 10 hectares of privately owned meadows and the collective alpine grassland. A small minority makes their living from animal husbandry, leases additional land from neighbors who quit farming and owns 20–40 animals. The latter type of farm would still be considered small compared to those in adjacent regions. Secondly, my use of the term is inspired by Jan Douwe van der Ploeg's definition of contemporary peasantries as practicing an economically, socially, and ecologically distinctive way of farming that differs from entrepreneurial or corporate farming (van der Ploeg 2018). His qualitative characterization of peasant farming is based on its relationship to capital and the environment, the distribution of labor and the means of production, and the connection between production and reproduction (ibid.: 8–22). These characteristics closely match my interlocutors' farming style and would not be captured by other terms like farmer or smallholder.

adaptability and persistence: The ongoing afterlife of the commons' formalization in Salzkammergut has ambivalent implications for the future of collective land use practices.

Fig. 1: Alpine hut in the Styrian part of Salzkammergut, constructed in the 1970s with an inbuilt yet unused cowshed as its lower floor (L. Rail)

State recognition and the titling of customary collective land tenure are frequently understood and promoted – by scholars, activists, and policy makers – as granting commoners legal security and protection against dispossession (e.g. Bromley 2008, Li 2007 98ff., Platteau 2000, United Nations 2018: 12). This view may not be wrong in the context of a liberal, capitalist market economy based on and presupposing unambiguous, alienable, and state-backed private property as the only appropriate form of land tenure (Dunn 2004: 28–57, Fraser 2013, Nuss 2019: 19–43, von Redecker 2020: 19–41). Yet, I join anthropologists like Tania Li or Kregg Hetherington in critiquing such a view as problematically incomplete. As they and others have shown, the formalization of common tenure practices may also have the effect of tacit exclusions (e.g. of women, or the poor) or become a tool for the appropriation of collective goods by local elites or powerful outsiders (Hetherington 2009, Li 2014 & 2021, Rocheleau & Edmunds 1997). Land titling is not innocent or neutral, but inevitably rearranges the

playing field on which involved actors meet and negotiate (Bonan 2019, Hetherington 2011).

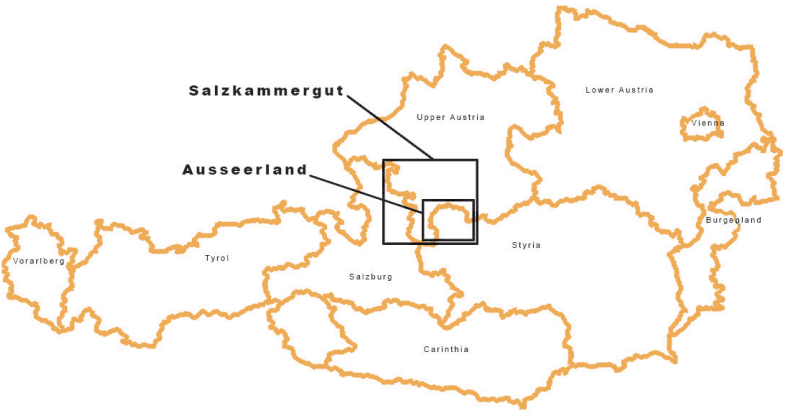

Fig. 2: Salzkammergut and its Styrian section called Ausseerland (C. Rosa de Pauli)

The agrarian commons of the European Alps, especially those in Switzerland, are known for their long-standing legal recognition and institutional stability in commons literature (Head-König 2019, Haller et. al. 2021a, Netting 1981, Ostrom 1990: 61ff., van Gils et. al. 2014). The use-right titles in Salzkammergut, too, have proven persistent. They have outlived the societal upheavals of the end of the Habsburg monarchy, two fascist dictatorships, two world wars, and the industrialization of animal husbandry in the lowlands of Europe (Auderset & Moser 2018, Dreidemy 2021, Hanisch 2002, Krammer & Rohrmoser 2012). Upon closer examination, however, the contribution of the commons' formalization to this longevity turns out to be ambivalent. It also had and still has other than protective effects.

Starting from the curious phenomenon of the sheds with no cows, I, too, want to challenge uncritical renditions of the commons' formalization and state recognition processes. The argument that the ethnographic context of Salzkammergut can contribute to already existing critiques and findings is

twofold: First, a glance into the region's history advises us to ask whose access to and control over land gets protected by formalization from whom or from whose claims? In the case of Salzkammergut under Habsburg rule, it can be argued that historical attempts to formalize and legally underpin the peasantry's use-rights were largely about limiting and making measurable formerly more generalized entitlements by the rural population on the monarchs' land (Bauer 1925: 64–118, Krammer & Rohrmoser 2012: 37–45). They fostered the consolidation of territorial and resource control (Bauer 1925: 75ff.; cf. Vandergeest & Peluso 1995). They defined, but also *confined*, commoners' access to certain areas and extraction limits. Accommodating the seasonal character of alpine pastoralism, they even restricted commoners' access to woods and pastures to certain times of the year.

Secondly, I show that the diverse effects of historic legislation processes of the commons are not limited to the realm of the past but keep configuring the present, e.g. by imposing architectural obligations that do not match contemporary pasture use. Once in place, legal formalization unfolds a tenacious and only partly predictable afterlife of its own. Over time, titles, laws, and regulation documents may bring forth unanticipated material effects – like alpine pastures dotted with cowless cowsheds – when the context of collective land use changes, yet legislation persistently remains the same; under the influence of global warming, even the seasons have started decoupling from the dates that define the grazing period in peasants' use-right deeds. Formalization also shapes the uneven ground on which conflicts of interest over land are fought out. Some of these shaping effects may develop into an advantage for commoners, but others might prove detrimental to the future of the commons' maintenance. The obligation to build sheds that are unnecessary to their style of animal husbandry is neither an asset nor a significant detriment to pasture users, but it is a powerful image, or materialization, of the tenacious and ambivalent shaping power I want to grasp and theorize.

In both parts of the argument – in both past and present – the commons' formalization configures the distribution of bargaining power among different groups of actors interested in using the mountainous land of Salzkammergut. To get to the vantage point from which this argument can be unfolded, let me take you on a cattle drive up to a mountain pasture in Salzkammergut, into some cowless sheds, into the practicalities of seasonal alpine pasture use, and the region's imperial history.

On the Cattle Drive

In the Styrian part of Salzkammergut, also called Ausseerland, many of the high-altitude summer pastures lie on a high plateau between the villages Altaussee and Grundlsee, the spur of a mountain range called "Totes Gebirge"[3]. The peaks that are visible from these villages are not those of single-standing mountains but peaks of named elevations within this massif. The alps – the shorter English term for alpine summer pastures – stretch out between these elevations, on altitudes ranging from 1,400 to 1,750 meters above sea level. At such altitudes, the vegetation cycle starts later in the year and is much shorter than in the valleys where the villages lie. Customary alpine pastoralism makes use of this seasonal differential, by moving livestock to elevated pastures during high-alpine summer and thus taking grazing pressure off the grassland below. The grass of the lower-lying meadows, freed from the livestock's mouths and hoofs between June and September, is turned into hay to be fed during the winter months. Without grazing rights on the mountains, each farmstead in Salzkammergut could only support a much smaller number of cattle and sheep throughout the year.

One early morning in June 2022, I joined a cattle drive to an alp on the above-mentioned plateau – to "Schwarzmoosalm"[4]. Half the way up the mountain slope, the mother cows, calves, young oxen, and participating peasant families had been transported by tractors, livestock trailers, and cars on a forest gravel road. From the end of the road, we had to hike for another 1.5 hours up a narrow and rocky trail, still crossing some fields of not-yet-melted snow clinging to the shaded turns of the paths. Milk cows were not part of the procession.

3 In English, this translates to "dead mountains". The dramatic name signposts the widespread water shortage on this limestone mountain range. There are few springs while rainfall quickly drains off due to the local geology.

4 The name of the alp has been pseudonymized.

Fig. 3: Cattle drive to "Schwarzmoosalm" (L. Rail)

After we had crossed the last pass, the main grazing area of the alp opened up beneath us. In one corner of the pasture, I could already glimpse more than 20 small wooden cabins. After counting the animals one last time

to make sure we had not lost any in the shrubs on the way, we walked over to the huts for a late breakfast in front of one of the newer huts.[5] The gathering would last several hours, far into the sun-soaked afternoon. Most of the things we needed to set up for our get-together – tables, benches, sunshades, snacks, and eventually, cans of beer – were stored in the windowless low-ceilinged ground floor of the hut. Many other items were stacked away in there, too, for example, bags of cattle salt, a chainsaw, fuel canisters, chopped wood, and a control box for the power generated by a solar panel on the hut's roof.

Each hut on "Schwarzmoosalm" belongs to a different use-right-entitled household. Each consists of a small living space on the first floor and a similar storage space below. The name for these storage spaces in the local dialect is *Kiadachl* which translates to cow's roof: Historically, the ground floors of alpine huts in Salzkammergut have been used for gathering up dairy cows for milking and for giving off some of their bodily warmth to the humans living above (Hänsel et. al. 1987: 34). Structurally, all the storage spaces on "Schwarzmoosalm" are cowsheds. Yet, nowadays, they house benches, toolboxes, and beer instead of cattle and milkers. On "Schwarzmoosalm" peasants stopped milking and milk processing in the 1970s. The workload of dairying and carrying the products (butter and sour milk cheese) down from the mountains on foot was eventually considered untenable. Dairy cows vanished from the summer pastures of Ausseerland. Only heifers, oxen, and sheep remain. By now, most farming households have switched from milk to meat production altogether and prefer to keep suckler cows and their calves. The price for raw milk stopped matching production costs, and when the only local dairy plant started to impose additional pick-up fees for smaller producers around 2012, all but a handful of farms in the region quit milking. Additionally, suckler cow husbandry is less labor intensive and more compatible with the wage jobs that have become a necessary supplement to farming incomes.

Because of these trends, no pasture user on "Schwarzmoosalm" needs a *Kiadachl* to gather up their animals anymore. Neither would contemporary cattle even fit into the huts' narrow sheds because of the increased size of modern breeds. Certainly, using the *Kiadachl* can be adapted for other purposes, namely the permanent storage of tools and the seasonal storage of food and beverages, which are restocked every year in early summer. But

5 This particular one had been built between 2012 and 2013.

why has there been no adjustment to alpine huts' building style when their function to users has changed so drastically?

A Detour into History and Salt Mines

The quest to answer this question leads us into the history of Salzkammergut and deep into the interior of its mountains. A first hint can be found in the region's name itself. *Salz* means salt, *Kammer* means chamber in the sense of treasury, and *Gut* means property or estate. For several centuries, Salzkammergut was a center of salt mining in the Habsburg empire, hence the term 'salt' in the toponym. The other part of the name – *Kammergut* – signifies the process of monopolization over salt production that the Habsburg rulers enacted from the 16th century onward. Feudal intermediaries, who had governed the land and salt mining before, were replaced by direct control by the crown (Bauer 1925: 24ff., Rebel 1998: 212ff., Schiff 1899: 3f.).

Salt extraction required not only salt deposits and labor power but also massive amounts of timber and firewood: the former for constructing mines, the latter for reducing salt brine to dry grains. Effective control over salt mines thus also required control over productive forests. By the turn of the 16th century, access to the wooded mountain slopes of Salzkammergut was already shared by different groups of actors. Hunting had been made an exclusive privilege of manor lords and the nobility (Bauer 1925: 55–63). Yet, seasonal alpine pasture use and the extraction of wood needed for heating and housing were still generalized among the local population. In two respective rulings in 1509 and 1517, however, emperor Maximilian I declared all wooded territory in Salzkammergut as reserved for salt extraction (ibid.: 25–27). Rural households' use should henceforth be limited to what they needed for their reproduction, but not more. Formerly self-coordinated common usage of the mountains' forests and alps – necessary for supplementing local farmsteads – was turned into demand-based use-rights called *Einforstungsrechte* on land owned by the Habsburg crown (Holzer 2013: 171ff., Schiff 1899: 3). Over the following centuries, various rulers attempted to formally define, and thus constrain, what would count as legitimate demand per household, including, for example, empress Maria Theresa (Bauer 1925: 64–118, Krammer & Rohrmoser 2012: 37–45, Schiff 1899: 7ff.).

The use-right deeds valid in Salzkammergut today stem from such an attempt conducted in the second half of the 19th century. A decisive

event leading up to this persistent formalization effort was the abolition of serfdom in the Austrian empire in 1848, which aimed at dissolving all feudal dependencies and creating unambiguous land ownership (Bauer 1925: 99ff.). While in large parts of the Habsburg empire the farming population received private land titles (often at the high cost of indebtedness), in some regions like Salzkammergut use-right arrangements were retained but neatly defined to reach a similar level of orderliness in property relations (Krammer & Rohrmoser 2012: 39ff., Schiff 1899: 10ff.). Between 1853 and 1889, commissions of surveyors installed by the crown to document customary use practices traveled the empire to measure and negotiate over the exact needs in firewood, timber, and pasture of each household and put them down in official deeds (*Regulierungsvergleich*, lit.: regulation settlement) (Holzer 2013: 172ff., Schiff 1899: 32–48). The resulting documents meticulously defined the precise number and kind of animals from each household that could graze on the alpine summer pastures, the dates during which livestock and herders would be granted access to the mountains' grassland, and the amount of wood each farmstead would be entitled to. They also included prescribed hut designs that would save valuable lumber: Combining shed and living space into one building reduces the amount of framing material; arranging them above one another significantly reduces roofage.

This effortful bureaucratic project was declared finished in 1889. The use-right titles issued by that time have remained unchanged ever since.[6] This also means that since this cutoff date, there has been no mechanism in place anymore to grant new use-right titles: The demand of any household founded in Salzkammergut after 1889 has not been considered. Access and entitlement to common pasture and forest use have been foreclosed to all newcomers for more than 130 years.

6 Single use-right deeds can be dissolved, however, by 'selling' them to the landowner on whose territory the use-rights lie. The *Einforstungsverband*, an organization representing the interests of holders of these specific use-rights in Austria, estimates 38.000 households to currently hold valid use-right titles in the country (interview with the organization's managing director, 2022).

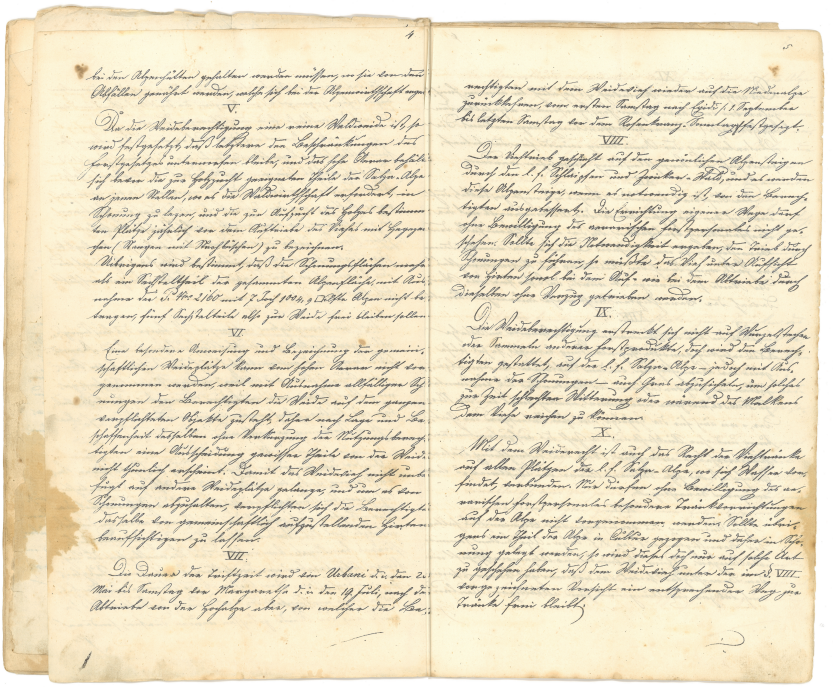

Fig. 4: Use-right deed issued to a farmstead in Ausseerland in 1863; paragraph VII specifies the grazing period, mentioning both calendar dates and Catholic feast days (L. Rail)

Other things have changed quite a bit since 1889. Not only farming styles, cattle breeds, the seasons, and the role that agriculture plays for local livelihoods, but also the land-owning party. The land that once belonged to the Habsburg dynasty has become the property of the Republic of Austria and has been managed, since 1925, by the Austrian national forestry, the *Österreichische Bundesforste* (Landsteiner 1975: 16, Wirth 2010: 16f.).[7] Conflicts of interest over land use are no longer fought over between the local population and imperial bureaucrats. Today, they are struck between use-right holders and the foresters of the *Österreichische Bundesforste* who,

7 During the National Socialist regime in Austria (1938–1945), the *Österreichische Bundesforste* were dissolved and integrated into the forestry administration of the Third Reich. After 1945, the organization was reconstituted (for more details see Wirth 2010).

as custodians, watch over the conformity of households' pasture and forest use and their aged use-right documents.[8]

On the Pasture

The prescribed building style of alpine huts may not be a relevant topic of contention between representatives of the landowners and users today. The use of the huts, however, is.

As the entitled peasant families of "Schwarzmoosalm" and I sat under the sunshades, they proudly told me about recent renovation work on their respective huts, past roaring feasts on the pasture, and when they were planning to spend a week or two on their alp this year. "Caring for cattle does not allow you to travel much," an elderly use-right holder explained. "But when you have access to this landscape, when you have a hut up here because of the cattle – why would you even want to go abroad?" Everybody nodded solemnly. A younger peasant chimed in. "The only problem is that the forester doesn't like to see us up here too often. You have to trick him. You should know what to say when you meet him on the mountain: You can say that you are checking on your cows or making sure your hut hasn't been damaged by an avalanche in winter. You shouldn't say you are just hiking up for fun."

The use-right deeds that local households hold for their summer pastures delimit the period when animals – but also the animals' owners and herders – are permitted to the alps. Usually, the grazing period allowed by the old documents starts in early to mid-June and ends at the beginning of September. Use-right holders are additionally allowed to visit their huts before and after this period but only for a limited number of defined purposes: For pasture clearing or path and hut repairs before the grazing season, and for proofing one's hut against the winter afterwards. Visiting one's hut for leisure, especially between autumn and spring, is not part of the deal. Yet, for many remaining peasant households, it is precisely the enjoyment of spending time on the alp, and the privilege of having access to a retreat home on the mountain, that keeps them from quitting agriculture and caring for their commons. Use-right holders keep breaking the rule of

8 The *Österreichische Bundesforste* are not the only landowner in Austria with obligations towards use-right holders, but they are the largest one (Bauer 1976 [1926]: 400, einforstungsverband.at/einforstungsrechte/zahlen-und-fakten/).

visiting their huts only when necessary for animal husbandry or building maintenance. They know their tricks and they know that the foresters in their region tend to ignore this, but only to a certain extent: When their leisure visits become too frequent or too obvious, when they annoy the forester with other actions, or when the local forester is told to implement use-right protocols more strictly by a superior inside the *Österreichische Bundesforste*, then their forester has the power to expel them from their huts for most of the year.[9]

Fig. 5: The author and a herder; view over the huts of "Schwarzmoosalm" (R. Gazzari)

Pasture users need to be especially careful not to try the foresters' complaisance in September: The end of the grazing season – and, thus, of the season in which peasants are allowed to spend time on the mountain –

9 During my field research in Salzkammergut, peasants were concerned about the rumor that the national forestry was planning to install digital locking systems on the toll gates controlling access to forest roads. Pasture users have the right (and, so far, the physical keys) to use these roads, but only during the legally defined season. With digital keys, the *Österreichische Bundesforste* would suddenly be able to monitor when and how often peasants frequent their alpine pastures. This is precisely the information that pasture users want to keep in the dark and privately negotiable with the local forester.

is determined by the beginning of the hunting season. The privilege of hunting was not distributed to the local population in Salzkammergut in the course of use right formalization but remained solely on the side of the land-owning party. Today, hunting rights are managed by the national forestry and lucratively leased to private hunters. These hunters want pasture users and their livestock gone from the mountains as early in autumn as possible because the latter's presence makes the game more cautious and difficult to stalk. Come the first days of September, peasants and their animals need to move downhill unless they want to compromise the foresters' goodwill, on which they depend, – even if the alpine pasture still offers one or two weeks of sufficient fodder.

The more the practice of pasture use changes while the rules defined in use-right deeds stubbornly remain the same, the more adaptation by informal negotiation between use-right holders and foresters becomes necessary. The more peasant households depend on the foresters' openness to find informal solutions, the more leverage and power is gained by national forestry. This applies not only to the changing interest of peasant households in how they want to spend time in their huts but also to the impact of climate change, which has begun to alter the seasonal rhythms of pastoral land use: Pasture users, as well as officials of the provincial agricultural agencies in Austria, told me that compared to the second half of the 19th century, the alpine growing season now tends to start earlier and lasts longer. To make optimum use of the nutrient capacities of the high-altitude grassland, farming collectives now would have to move their cattle to the alpine pastures one to two weeks earlier than their use-right titles allow. On all the alps I worked on during fieldwork, peasant collectives were informally allowed to adapt their movement to the current climatic conditions. However, I also heard foresters warning use-right holders that they would revert to playing according to the rules again should livestock holders not be gone from the pastures in time for the start of the hunting season.

The increasing mismatch between use-right deeds and changed vegetation conditions, however, also bears challenges for the foresters: Use-right-entitled households not only have grazing rights but also the right to receive annual shares in certain types of wood for diverse purposes (heating, fence building, house construction, or roofing). Meeting all these shares requires a specific composition of tree species – a composition that becomes less and less suitable to the region's climate. In addition, forests become increasingly exposed to windfall, beetle infestation, and drought. Foresters, too,

have to perform a balancing act between mitigating the risks of climate change in forest planning and planting trees in accordance with their obligations to use-right holders set out in 150-year-old documents.

Thus, the old use-right deeds offer diverse anchor points for exerting leverage power for different actors in Salzkammergut – including the local peasant households. The representatives of the *Österreichische Bundesforste*, however, have the decisive advantage that peasant agriculture in the Alps becomes less attractive without their active intervention (e.g. Hanisch 2022 34-38, Krammer & Rohrmoser 2012: 145ff.). Use-right holders in Ausseerland keep quitting animal husbandry – and the connected land use – because prices fetched for their produce no longer recompense farming inputs and because younger generations are less and less willing (and able) to dedicate the required amount of labor to farming.[10] Dairy cows have already vanished from the alps and alpine sheds of Salzkammergut; the remaining kinds of livestock on the mountain pastures keep decreasing.[11] In other parts of Austria, pasture collectives have started to compensate for dwindling revenues from animal husbandry by intensifying their catering to hikers and tourists on their alps. This allows them to benefit economically from the idealized representations of traditional Alpine landscapes promoted by the Austrian media and tourism associations (Kirchengast 2008; e.g. austria.info/de/unterkuenfte/urlaub-auf-der-alm) – representations of the very landscapes that they collectively maintain and reproduce. In Salzkammergut, such versatility in how to funnel value from high-altitude pastureland into farmsteads' budgets is prevented, again, by the limits set in use-right deeds: Selling meals and drinks to guests is not allowed on use-right-based summer pastures in Ausseerland. In any case, the prescribed building style prohibits the construction of necessary infrastructure for offering food and service, such as bar facilities, kitchens that would meet today's hygiene regulations or access roads. Accordingly, the land-owning party and its representatives merely need to ignore requests for the adap-

10 Local peasants in Ausseerland have even launched a fundraising initiative to draw attention to the impending disappearance of small farms in the region in the next generations: landschaftspflegefonds.at/.

11 In Ausseerland, few alps have been completely abandoned in the past century. But their use has been significantly 'hollowed out': Summer pastures with technically more than twenty entitled households are stocked with livestock of only five or three farmsteads today. Less animals mean more shrubs taking over the pasture, while less active users mean less labor power for pasture maintenance. When the few remaining users decide to give up alpine agriculture, their grassland will quickly be taken over by shrubs and trees.

tation of use-rights (and to restrict peasants in counterbalancing the workload of farming with leisure time) to see the exertion of use-rights drop as if on its own.

View from the Top

We have roamed the alpine pasture and reached the highest point of this hike. It's time to conclude by interpreting the vista. At first glance, the formal use-right deeds that govern the access to alpine pastures and forests in Salzkammergut – shared between parts of the local population and the national forestry – may strike observers with their extraordinary durability. Handwritten documents from the 19th century continue to ensure the persistence of a type of land tenure that predates and defies unambiguous private property. Shouldn't the elaborate titling process from 1853 to 1889 be seen as a textbook example of the protection of the commons through state recognition and formalization? My argument is not to deny the preserving capacities of customary commons' integration into state legislation. Rather, I want to stress the additional processes that unfold in formalization's wake.

Kregg Hetherington's observations on the efficacy of formal representations of landed property in rural Paraguay (maps, permits, land title documents, folders in ministries, etc.) are instructive here. He writes: "[…] maps —even inaccurate, contestable, illegible, distractingly ornate, or dated maps —invite and enable people to do things that they couldn't do otherwise. […] A map makes it possible to enroll technologies and authorities in support of argument, actors, and things that wouldn't otherwise be involved." (Hetherington 2011: 7). Formalization of customary land use in Salzkammergut entailed measuring and filing the exact amount of wood and pasture needed by each existing household, defining the summer season, writing down topographic descriptions and drawing maps, putting stamps and signatures onto regulation documents, and commissioning state agencies with settling legal fights concerning these newly established use-right titles. All this heavily changed how and with whose help peasant households could press their claims to subsistence supplementing resources. Yet it also changed whom and which techniques landowners could enroll in asserting their own interests. From the perspective of the Habsburg rulers and the bureaucrats in their state apparatus, the formalization of collective land use was a way to make calculable and legible – very much so in the sense of James Scott's 'Seeing Like a State' – how much wood and grass would

flow off to local homesteads and how much would be at their own disposal (Bauer 1925; cf. Bonan 2019, Scott 1998).

Representations of property never only represent – they *alter* what is represented, and they *alter* the room for maneuver of the actors concerned (Blomley 2013, Hetherington 2009 & 2011). Formalization, that is, creating representations of property relations recognized by state agents, thus cannot be power-neutral. The process of use-right titling in the Habsburg empire was shaped by conflicting and unevenly powerful interests, dominantly so by the rulers' interest to limit peasant use of the mountains and to retain as much wood as possible for salt extraction. Formal titling defined but also froze the local population's demands in time. It precluded any future expansion or adaptation of entitlements; it excluded all newcomers to the region thereafter. Because of their persistence, collective alpine pastures in Salzkammergut are usually seen as customary commons that have eluded the waves of enclosure across Europe from the 16th to 19th centuries (Federici 2017: 29–164, Nuss 2019: 55ff., van Gils et. al. 2014: 17). Granted, regional collective land use institutions may not have been dissolved, but their formalization has made them exclusive. I believe that reducing generalized, flexible, and locally negotiated entitlements to a firmly limited set of titles should be seen at least as a partial enclosure – a partial enclosure mechanism that, today, contributes to the remaining commons being slowly hollowed out and, thus, potentially fully enclosed over time.

It was not only the historical process of use-right formalization that was imbued with power differentials, but so was and is the use-right titles' ongoing implementation, as I have shown in the previous parts of this article. The commons' formalization molds the ground on which the demands and interests of peasants and representatives of the *Österreichische Bundesforste* are based on and fought over. It continues to configure the distribution of leeway in these fights.

Once documents, maps, or cadaster entries of common land use prove tenacious, their shaping power keeps unfolding over time. The more the commons' formal fixation ages and the more the world embedding these commons evolves, the more unpredictable formalization's effects become – including material ones like sheds without cows or scientifically outdated compositions of tree species in afforestation. The safekeeping potential of fixing collective use practices as legal titles and in related bodies of law may lead to more than the commons' protection. The durability and rigidity of the *Einforstungsrechte* in Salzkammergut themselves increasingly become obstacles for alpine commons' persistence: They preclude adaptation to

changed environments – ecological, economic, social – and they have shifted the scope of action in favor of the landowning party. My point is not that the commons' formalization necessarily reduced commoners' leverage over time. I propose that formalization processes unavoidably and continuously *rearrange the tools of influence* each involved actor can mobilize in their interest and that, over the years, it becomes harder to predict to whose benefit and to whose detriment this will eventually play out.

The persistence of collective land-use institutions requires not only rules – self-imposed or codified in state-sanctioned laws – but also flexibility. Commons are a form of tenure in which 'property' inevitably is a negotiation process among those concerned: Using seasonal pastures as a collective means balancing commoners' capacities and needs, debating about how best to use and foster the growth of grass, or experimenting with the distribution of tasks. Yet capacities and needs change, the growth of grass changes, and commoners' tasks change, too. So should the rules that structure collective use and negotiation. Diverse authors have shown and argued that commons are more likely to persist when commoners have the opportunity to adjust their guidelines and when they hold the power to do so themselves (Landolt & Haller 2015, Haller et. al. 2021b, Ostrom 1990: 101). Such opportunity, however, is foreclosed by the use-right deeds governing the collective use of alpine pastures in Salzkammergut, leading to the commons' slow demise and sprouting impractical material outcomes.

A lesson to be gleaned from the context of the long-formalized land commons of the European Alps is that, once in place, the outcomes of formalization processes have a tenacious afterlife – an afterlife that can get in the way of the commons' future. Thus, advocacy for the commons' integration into state legislation should, in my mind, include the insistence on devising inbuilt mechanisms for future readjustments and a good deal of humility concerning our capacity to predict upcoming developments. After all, who could have imagined alps full of cowless cowsheds – the material reminders of seasonal herding practices abandoned decades ago, now used in new ways? Who could have guessed that even the seasons themselves would start changing – not just the capriciousness of the weather but the rhythm of seasonal agrarian cycles?

References

Auderset, Juri and Peter Moser
2018 Die Agrarfrage in der Industriegesellschaft. Wissenskulturen, Machtverhältnisse und natürliche Ressourcen in der agrarisch-industriellen Wissensgesellschaft (1850–1950). Wien: Böhlau.

Bauer, Otto
1976 [1926] Sozialdemokratische Agrarpolitik. Erläuterung des Agrarprogramms der Deutschösterreichischen Sozialdemokratie. In: Bauer, Otto. Werkausgabe. Band 3; pp. 283–427. Wien: Europaverlag.
1925 Der Kampf um Wald und Weide. Wien: Verlag der Wiener Volksbuchhandlung.

Blomley, Nicholas
2013 Performing Property. Making the World. *Canadian Journal of Law and Jurisprudence* 26/1: 23–48.

Bromley, Daniel W.
2008 Formalising property relations in the developing world: The wrong prescription for the wrong malady. *Land Use Policy* 26: 20–27.

Bonan, Giacomo
2019 The State in the Forest. Contested Commons in the Nineteenth Century Venetian Alps. Winwick: The White Horse Press.

Dreidemy, Lucile
2021 Austrofaschismus und Dollfuß-Mythos im Licht und Schatten der Geschichtsschreibung. In: C. Moos (ed.), (K)ein Austrofaschismus? Studien zum Herrschaftssystem 1933–1938; pp. 29–41. Wien: LIT Verlag.

Dunn, Elisabeth C.
2004 Privatizing Poland. Baby Food, Big Business, and the Remaking of Labor. Ithaca: Cornell University Press.

Federici, Silvia
2017 Caliban und die Hexe. Frauen, der Körper und die ursprüngliche Akkumulation. Wien: Mandelbaum.

Fraser, Nancy
2023 Cannibal Capitalism: How our System is Devouring Democracy, Care, and the Planet and What We Can Do About It. London: Verso Books.

Haller, Tobias et. al.
2021a Ostroms's legacy of robustness and the 'Swiss commons lab': Introductory reflections on change and power in commons studies. In: T. Haller et. al. (eds.), Balancing the commons in Switzerland. Institutional transformations and sustainable snnovations; pp. 1–13. New York: Routledge.
2021b Transformation and diversity. Synthesis of the case studies. In: T. Haller et. al. (eds.), Balancing the commons in Switzerland. Institutional transformations and sustainable snnovations; pp. 277–299. New York: Routledge.

Hanisch, Ernst
2002 Die Politilk und die Landwirtschaft. In: F. Ledermüller (ed.), Geschichte der österreichischen Land- und Forstwirtschaft im 20. Jahrhundert; pp. 15–189. Wien: Ueberreuter.

Hänsel, Volker, et. al.
1987 Vom Leben auf der Alm. Ausstellungskatalog. Trautenfels: Kleine Schriften des Landschaftsmuseums Schloss Trautenfels am Steiermärkischen Landesmuseum Joanneum.

Head-König, Anne-Lise
2019 The Commons in Highland and Lowland Switzerland over Time. Transformations in their Organisation and Survival Trategies (Seventeenth to Twentieth Century). In: T. Haller et. al. (eds.), The Commons in a Glocal World; pp. 156–172. New York: Routledge.

Hetherington, Kregg
2011 Guerilla Auditors. The Politics of Transparency in Neoliberal Paraguay. London: Duke University Press.
2009 Privatizing the private in rural Paraguay: Precarious lots and the materiality of rights. *American Ethnologist* 36/2: 224–241.

Holzer, Gottfried
2013 Einforstungsrechte und Eigentumsschutz. In: R. Norer and G. Holzer (eds.), Agrarrecht. Jahrbuch 13; pp. 169–187. Wien: Neuer Wissenschaftlicher Verlag.

Kirchengast, Christoph
2008 Über Almen: zwischen Agrikultur & Trashkultur. Innsbruck: Innsbruck University Press.

Krammer, Josef and Franz Rohrmoser
2012 Im Kampf um ihre Rechte. Die Geschichte der Bauern und Bäuerinnen in Österreich. Wien: Promedia.

Landolt, Gabriela and Tobias Haller
2015 Alpine Common Property Institutions under Change: Conditions for Successful and Unsuccessful Collective Action by Alpine Farmers in the Canton of Grisons, Switzerland. *Human Organization* 74/1: 100–111.

Li, Tania Murray
2021 Commons, co-ops, and corporations: assembling Indonesia's twenty-first century land reform. *The Journal of Peasant Studies* 48/3: 613–639.
2014 Land's End. Capitalist Relations on an Indigenous Frontier. London: Duke University Press.
2007 The Will to Improve. Governmentality, Development, and the Practice of Politics. London: Duke University Press.

Landsteiner, Vinzenz
1975 1925–1975. 50 Jahre Österreichische Bundesforste. Wien: Eigenverlag.

Netting, Robert McC.
1981 Balancing on an Alp: ecological change and continuity in a Swiss mountain community. Cambridge: Cambridge University Press.

Nuss, Sabine
2019 Keine Enteignung ist auch keine Lösung. Die große Wiederaneignung und das vergiftete Versprechen des Privateigentums. Berlin: Karl Dietz Verlag.

Ostrom, Elinor
1990 Governing the Commons. The evolution of institutions for collective action. Cambridge: Cambridge University Press.

Platteau, Jean-Philippe
2000 Does Africa Need Land Reform. In: C. Toulmin and J. Quan (eds.), Evolving land rights, policy and tenure in Africa; pp. 51–73. International Institute of Environment and Development (IIED).

Rebel, Hermann
1998 Peasantries Under the Austrian Empire, 1300 – 1800. In: T. Scott (ed.), The Peasantries of Europe from the Fourteenth to the Eighteenth Centuries; pp. 191–225. London: Longman.

Rocheleau, Dianne and David Edmunds
1997 Women, men and trees: gender, power and property in forest and agrarian landscapes. *World Development 25*/8: 1351–1371.

Schiff, Walter
1899 Die Regulierung und Ablösung der Wald- und Weide-Servituten. Wien: Commissionsverlag Moritz Perles.

Scott, James C.
1998 Seeing Like a State. How Certain Schemes to Improve the Human Condition Have Failed. New Haven: Yale University Press.

United Nations (General Assembly)
2018 United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas.

van der Ploeg, Jan Douwe
2018 The New Peasantries. Rural Development in Times of Globalization. Second edition. New York: Routledge.

van Gils, Heinz, Gerhard Siegl and Rohan Mark Bennett
2014 The living commons of West Tyrol, Austria: Lessons for land policy and land administration. *Land Use Policy* 38: 16–25.

Vandergeest, Peter and Nancy Lee Peluso
1995 Territorialization and state power in Thailand. *Theory and Society* 24: 384–425.

von Redecker, Eva
2020 Revolution für das Leben. Philosophie der neuen Protestformen. Frankfurt am Main: Fischer Verlag.

Wirth, Maria
2010 Personelle (Dis-)kontinuitäten im Bereich der Österreichischen Bundesforste/Reichsforstverwaltung 1938 – 1945 – 1955. In: O. Rathkolb, M. Wirth and M. Wladika (eds.), Die "Reichsforste" in Österreich 1938–1945. Arisierung, Restitution, Zwangsarbeit und Entnazifizierung. Studie im Auftrag der Österreichischen Bundesforste; pp. 15–128. Wien: Böhlau.

Web sources

https://www.austria.info/de/unterkuenfte/urlaub-auf-der-alm (2024.07.10)

https://www.einforstungsverband.at/einforstungsrechte/zahlen-und-fakten/ (2024.07.10)

https://www.landschaftspflegefonds.at/ (2024.07.10)

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Isniq as a Land of Transhumant Pastoralism:

A Brief Anthropological Overview

Çlirimtare Januzaj

Abstract. – This essay explores practices of pastoralism and transhumance in Isniq, a region in the western Balkans, Kosovo, known for pastoralist activities. The study delves into the cultural and socio-economic aspects of traditional practices, aiming at providing an in-depth understanding of the local community's reliance on livestock rearing and seasonal migration. By employing ethnographic methods such as participant observation, interviews, and document analysis, the paper sheds light on the intricate dynamics of Isniq's pastoralist society. The study examines the motivations behind transhumance and livestock mobility, and the intricate relationship between humans, animals, and landscapes. Furthermore, it addresses the economic significance of pastoralism in sustaining the livelihoods of Isniq's residents and the role of traditional knowledge and social structures in the preservation of this way of life. The findings contribute to the existing body of ethnographic knowledge on pastoralism and transhumance, and ethnography by highlighting the importance of cultural heritage in shaping sustainable practices among Isniq. [*Kosovo*, *Isniq, pastoralism, transhumance, collective memory, oral history, tradition*]

Introduction

This article was supposed to have only one research question, but as a result of its breadth, it has ended up with two or more. Initially, the paper begins with some of the short definitions I have extracted about transhumant pastoralism, where I wanted to give a general and narrow understanding of pastoralism as a process. Then, I continued with preliminary insights into pastoralism as a practice rooted in many different cultures around the world. What is pastoralism globally? What happens in pastoralist societies? The analyses and comparisons of practices in different cultures have resulted in facts that are somehow directly related to my study locality, Isniq, as a settlement known for pastoralist life.

The research continues with the highlands of Isniq, as the most comprehensive reflection of this study and the place where almost all pastoralist practices are carried out. Here, I will discuss their history, as interpreted by the residents and by authors of some written sources that I have found with difficulty. Furthermore, their division, ownership, and limitations on them are subtopics that I will elaborate on within this article. A brief treatment will be given to the unity of the organization of the highlands of Isniq, which has directly influenced their utilization as a pastoralist place by the residents.

The main research questions are: Why do the residents of Isniq venture into the mountains, and how do they utilize them? Why has the mountainous region become suitable for livestock, economy, recreation, and other needs? How did the blueberries and dairy products become the two main culinary cultures as a means of livelihood in the mountains? How have these transformed into pastoral family economies for many hereditary families in Isniq? The research continues with a phenomenological analysis of the daily lives of residents in the mountains, highlighting what the mountains mean to them. Finally, this topic concludes with a discussion of these pastoral practices in a broader context or in relation to wider societal perspectives, considering the limitations of the Isniq mountains in terms of tourism and economy, as well as the residents' attitudes towards this particular area and others.

Some Definitions of Transhumant Pastoralism

The repeated, regular, and continuous movement of livestock between defined grazing areas, in a seasonal manner, is called transhumance. Transhumance is a form of pastoralism that has been practiced all over the world since animals were first domesticated. Seasonal movements have formed an important aspect of many agricultural systems for thousands of years, although they have declined significantly since the nineteenth century. Transhumance is also a type of organized nomadism that involves the movements of herds mainly in mountainous areas, but this seasonal migration can also occur in high-altitude lowland areas. Most people who practice transhumance also engage in some form of crop cultivation and usually have a temporary or permanent place of residence (Costello and Svensson 2018: 1–13). Transhumance is practiced in those parts of the world where there are mountains or hills or cold areas that are suitable for settle-

ment. An extreme form of transhumance is that of Kohistan in the Swat region of Pakistan, where they go up to altitudes of 2000m. Most families in Kohistan own houses in four or five different locations, and almost the entire population is concentrated at the appropriate altitude range for the season. Their economy is based on a combination of crop cultivation and the keeping of dogs, cattle, sheep, goats, horses, and donkeys.

Pastoralist Societies around the World Today

Today, in many countries around the world, there exist many pastoralist societies that still practice this way of living. There are noticeable differences in the way pastoral life is organized depending on the country and culture where it is practiced. In some areas, pastoralism is still quite important for the local economy and the livelihoods of rural communities, while in other countries, the economy and way of life have changed significantly, and pastoralism has lost the importance it had in the past. For example, in some countries such as in sub-Saharan Africa, pastoralism is closely linked to the migration of animals in search of water and fresh pastures, while in other countries such as in Europe, seasonal movements are more complex and organized in a sustainable way, with clear legal rules and provisions. And in many other African countries, pastoralism is closely tied to the migration of animals in search of water and fresh pasture. The movement of herds is often more fluid and less regulated than in other parts of the world, with herders following their animals to wherever they can find food and water. This nomadic lifestyle has been the traditional way of life for many pastoralist communities in Africa for centuries (cf. Ayantunde and Asse 2014).

In contrast, transhumance in parts of Europe is often more structured and regulated. In countries like Switzerland, for example, transhumant pastoralists move their animals to high mountain pastures during the summer months, following a well-established seasonal pattern. The movement of animals is often accompanied by traditional ceremonies and is an important cultural event for many communities. Similarly, in places like the Andes mountains of South America, transhumance is an important way of life for many indigenous communities. These communities have developed a sophisticated system of rotating their herds between different elevations and pastures to ensure they have access to fresh grazing lands year-round. This system has been passed down for generations and is an integral part

of the culture and way of life of these communities. In Central Asia, pastoralism has a long history and is still practiced by many people. Nomadic herders in countries such as Kyrgyzstan, Kazakhstan, and Mongolia follow their animals across vast grasslands, moving with the seasons in search of good pasture. They typically herd horses, cattle, sheep, and goats, and often use yurts or other portable dwellings as their homes. The herders in this region also have a strong tradition of horsemanship and often use horses for transportation and hunting. Overall, while there are many similarities in the practices of pastoralism and transhumance around the world, there are also many differences that reflect the unique ecological, cultural, and economic contexts of different regions.

The Mountains of Isniq: Their Ownership, Division, and Organization

Like all the pastoralist societies mentioned above, Isniq, the place where I did fieldwork for a month, is also among them. Isniq is a settlement located in the north of the municipality of Deçan in Kosovo. This village is considered as one of the largest in Kosovo since it also owns 5 mountain ranges. They are divided as follows: Roshkodol, Milishevc, Pleqe, Zllonopoja, and Belle. These mountain ranges are part of the "Bjeshkët e Nemuna" (The Accursed Mountains), which are considered to be mountain ranges with pastures and rich flora and fauna. The history of these mountain ranges, as interpreted by the residents, as well as their division, ownership, and borders, the unity of organization of the mountain ranges, and their unique utilization have made these lands known as transhumant places where pastoralist practices have been practiced from ancient times until now.

How did Isniq come to own the five large mountains? From discussions with local residents, interesting facts are mentioned regarding the ownership of the mountains. Oral history passed down from their ancestors, and a few written records, are the only facts I have found regarding the ownership of the mountains. "According to oral history from our ancestors, these mountains were bought by the beys and pashas, who were the ruling class at that time. Our own ancestors also bought these mountains twice, and they bought them with money," says a 66-year-old resident of Isniq. Meanwhile, on the other hand, Adi says, "Roshkodol has two parts, while Milishevc has only one part because there were three brothers: Cana, Preka, Nika. Preka and Nika are in Roshkodol and Belle, while Cana and his brother are in Milishevc and Pleqe." Besides oral history and stories

Fig. 1: Goats traverse a snow-covered mountain path, embarking on their seasonal transhumance journey guided by herders (Y. Januzaj)

passed down from generation to generation, I have not come across any written documents that legally document the ownership of the pastures by

Isniq, except for a copy of the royal decree of 1172 granting the right to use the Milishevc pasture. (Maksutaj 2002: 56).

The mountains of Isniq are divided into neighborhoods. In each mountain, there are several neighborhoods. In the mountain where I conducted my fieldwork, the following surnames are found in Milishevc: Januzaj, Bruq, Mulaj, Tafaj, Seferaj, Osmonaj. The organization of the Isniq mountains is quite unique, an organization that I have not encountered in other mountains of the Albanian Alps. Firstly, the rules set by the residents for the mountains, without state or legal intervention, are a fact that leaves an impression on you. Anthropologist Tahir Latifi, during his study period in Isniq, emphasizes that *sulle* were the earlier village rules, where these rules were set by three councils: The Council of Reconciliation; The Council of the Mountain – Bjeshkë, and The Council of the Valley – Water Supply. "People gathered near the village mosque and decided on water and mountain rules for 4 years" (Latifi 2015: 54). These unwritten rules, if we may call them that, have survived over time even until today in Isniq. They are no longer made through gatherings of residents near the mosque, but their roots in the consciousness of each individual are undeniable.

Fig. 2: The ritual of goat shearing. A photo taken in the 1980s (M. Mehmetaj)

Some of the rules that are held with great fanaticism by the residents are: No outsider is allowed to build a house in the hills, nor buy any land; only wooden houses are allowed, and there are codes of good conduct, and many others. "If you don't know how to behave in the mountains, it's better not to come here at all because there is no place for you," says Dini.

The Reasons for Going to the Mountains

The mountains for the inhabitants of Isniq are treasures that can be utilized for everything. As a place with a high altitude of around 2000 m, Isniq is enriched with almost everything such as biodiversity, sufficient living space, suitable climate conditions, and many other things. The inhabitants, generation after generation, go up to the mountains and believe that they will always continue to do so. The ascent to the mountains begins from the end of March, but the inhabitants prepare even earlier in expectation of going up. Before leaving for the mountains for the summer, they continuously monitor the time and conditions up there, and send some necessary things there beforehand. Before settling in the mountains with the whole family, the men are the first to go to the mountains; they first gather the livestock and send them up. They send the livestock by foot, but there are also those who send them by means of transportation, such as a tractor, for example. "The road to Pleqe is the best and easiest way to go, we take our sheep there, and it takes us about 7 hours to get to Milishevc. It's a bit difficult because the sheep get tired, and we have to sit down to rest because they eat during the way all the time," says Adi.

Compared to other pastoral societies mentioned in the first part of this contribution, the Isniq highlands have another consequence: the creation of a parallel life in the highlands with that of the lowlands. Everyone who goes to the highlands for certain periods of time also has their own flocks. Their attempts to parallel a life similar to that of the lowlands have been successful, thanks to the conditions of the highlands. Climatic conditions, space and fertility of land, biodiversity, water, and many other conditions have made it very easy to adapt to life there. Apart from the lack of electricity and telephone signal, almost all other conditions are available there. The highlands not only serve as a place for transhumance but have also become a place where people can live easily, despite the fact that they are extremely high regions.

Fig. 3: Sokol and his family setting off early to be the first to pick wild blueberries (C. Januzaj)

The reasons for going to the mountains are diverse and cannot be generalized, as not everyone goes for the same reason. Therefore, I have prepared a chronology of reasons for the residents' departure to the mountains. First, there are those who go to the mountains only for rest, relaxation, and recreation. Another group of people go solely for health reasons, staying for 21 days to change their red blood cells. Usually, only men go in March to send the livestock to the mountains, then the whole family goes towards the end of June, because they are waiting for their children to finish school. In addition to the primary use of the mountains for settlement and livestock, they also exploit them for economic benefits, such as selling wild blueberries, dairy from cows and sheep, and other things. They manage to earn a large amount of income from selling items and cover their expenses for the whole year. One example I want to mention is that of Sokol Januzaj whose entire family income during the summer is based on the mountains and its benefits, and it has expanded to other families who have the same opportunity. Sokol goes to the mountains with his family: his wife Servete, his son Arber, and his daughter Anita. They climb up to the pasture from

July to September. They take their horse and 20 of their own sheep with them. For them, wild blueberries and dairy are the main sources of profit, and they work tirelessly toward collecting, producing, and selling them.

Wild Blueberries and Dairy Products – Two Main Culinary Delights

Wild blueberries are one of the fruits that can be abundantly found in the mountains of Isniq. They are highly beneficial for the residents. They ripen from the end of July until the end of September. Every space that catches the eye in the mountains is filled with blueberries, but, at the same time, those areas where blueberries are present are also crowded with people gathering them. Besides consuming them, another reason they gather them is for profit. People start gathering blueberries early in the morning because they believe they need to seize the day and not let it slip away. This implies that they should collect as many blueberries as possible since they have parallel competitors. I have noticed that everyone tries to gather more than the others. However, as Adi says, "It is enough for everyone."

Fig. 4: Wild blueberries picking in July 2020 (C. Januzaj)

As part of the family economy, alongside blueberries, there is also livestock farming. The livestock group includes animals such as cows, goats, and sheep. From these animals, products such as milk, cheese, butter, yogurt, sour cream, cream, and whey are produced, among others. Unlike blueberries, which only have a season of two months, livestock farming is carried out throughout the summer season in the forests and provides a significant source of income for the family economy. "The prices of dairy products in the mountains are always higher than there because the animals here eat everything that is healthier," says Hyra, who is constantly involved in the production of cheese, yogurt, and other dairy products.

Fig. 5: Hyra's collection of dairy products in August 2020 (C. Januzaj)

The Mountains of Isniq and the Broader Network of Social Relations

The mountains of Isniq as a topic in themselves can generally be analyzed in the context of the intersection of different social fields and categories. In the following, I have chosen to discuss tourism and the economy, as the majority of the benefits from the mountains are directly related to these two fields. The restriction of tourism for non-residents and how this restriction

affects the economy is an important issue. The restriction of wider tourism in those mountains with abundant resources and all the criteria for tourist exploitation fulfilled creates a new problem in terms of the economy. At first glance, we know that there cannot be a developed economy in the mountains without tourism, without bringing in electrification, and without the opening of tourist centers, restaurants, ski centers, etc. This lack of development in tourism has no impact on the local residents, except on the family economy that they develop themselves. The residents do not allow such development which can be exploited by someone else who is not a resident of the village, and thus we see a deliberate slowdown in this area. Perhaps this also justifies the stance of the municipality of Deçan in this regard: Recently, a ski center was being planned in the Belegu mountain range, and several tourist centers are also being planned in other mountains but not in those of Isniq, even though they are larger in territory and have more biodiversity. This perhaps also reflects the relationship between Isniq and the municipality indirectly, as there are no discussions or publications, but it is clearly evident only if we return to the construction of the rules by the residents themselves, without the need for any state intervention. This is how it has been in the past, and this is how the system continues today. The same is almost true for the case of the National Park "Bjeshkët e Nemuna," as emphasized by Zeqir Veselaj, an ecology researcher: "It is strange why in the case of the Sharri Mountains, things are going so smoothly and easily in the procedure, while in the other area, that of the Bjeshkët e Nemuna, there are still problems even today, although both areas have similar values: great biodiversity resources, natural characteristics, cultural heritage, and great tourism potential; they are located in 4 municipalities and inhabited by indigenous populations; they have been processed for declaration and protection almost at the same time; they are in border areas with neighboring countries" (Veselaj 2010: 45).

The Mountains for Residents: A Phenomenological Approach

But what do the mountains mean to the residents of Isniq? Through the phenomenological approach I managed to see what connects the inhabitants with the mountains. Mountains for the residents, residents for the mountains, this is a reciprocal and continuous interconnection with each other. The stories, experiences, narratives, practices, and their continuous and regular repetition have influenced the relationship between mountains

and humans. As Christopher Tilley says: "A landscape is a series of named locales, a set of relational places linked by paths, movements and narratives. It is a 'natural' topography perspectivally linked to the existential Being of the body in societal place. It is a cultural code for living, an anonymous 'text' to be read and interpreted, a writing pad for inscription, a scape of and for human praxis, a mode of dwelling and a mode of experiencing" (1994: 34).

Fig. 6: The Accursed Mountains, an indelible mark on the collective memory for the residents of Isniq (Phot. C. Januzaj)

"I have completely wandered through the mountains of Isniq, and as for the mountains called the Alps of Kosovo, there is not a single peak that I haven't climbed. I have even fallen in love with them, and I am never tired of traveling on their beautiful roads. I have slept in their slopes, in their meadows, in their forests, and I have continued my life there until now. The best place is because there is nowhere else in the world like Milishevc, it

embellishes my soul, which I have nurtured since childhood."[1] This is how Syla answered to me when I asked him: "What do these lands mean for you?" Have the residents of Isniq understood the cultural identity as a result of continuous contact with each other, even in relation to the mountains? Our landscapes are a creation of history; in fact, they can also be seen as a projection of the values of human groups that have shaped them because humans, by working with nature, shape the land in specific forms, giving the landscape an artistic character, combining the idea of aesthetics with that of function and giving cultural meaning to this original combination. All the benefits that the mountains have offered to the residents have created a certain type of trust and life connection with the mountains, in every aspect.

Conclusion

Despite the subject being complex and fluid, it has managed to highlight some conclusions that are interconnected. As a first conclusion, it can be considered that the mountains of Isniq are lively settlements that still practice pastoralism today. The experiencing of these lands by the residents openly demonstrates the existence and continuity of a pastoral life in Albanian culture. Despite the economic risks, pastoralism remains an important seasonal socio-economic practice. The benefit from the mountains has primarily led them to become a "bread" that they eat, and this has made the residents continue to go to the mountains in a way that eases their life economically. Wild blueberries and dairy have become two delights from the mountains, which have made self-employment possible in their area. Authenticity and traditional knowledge, feelings of cultural identity, collective property, mutual incomes, and benefits have acted as motivating factors in maintaining pastoralism across generations. The preservation of these practices deep in the collective memory around the Isniq area has helped in the survival of what has been created since the time of the first ancestors and the present. They once fought against all kinds of systems, and now they fight to carry on the tradition. Despite the risk they face, they still struggle to pass all of this on to the new generations so that the mountains do not get lost in the fog of time.

1 All names in this study have been anonymized to ensure privacy.

References Cited

Ayantunde, Agustine and **Rainer Asse**
2014 Transhumant Pastoralism, Sustainable Management of Natural Resources and Endemic Ruminant Livestock in the Sub-Humid Zone of West Africa. *Environment, Development and Sustainability* 16: 1097–1117.

Costello, Eugene and **Eva Svensson** (eds)
2018 Historical Archaeologies of Transhumance across Europe. London: Routledge [*Themes in Contemporary Archaeology* 6]

Latifi, Tahir
2015 Family, Kinship Relations and Social Security in Kosovo Since the War of 1999. The Case of Isniq. PhD Thesis, University of Graz.

Maksutaj, Rexhep
2002 Isniqi gjatë shekujve: Vështrim antropologjik dhe kronikë ngjarjesh historike. Prishtinë Libri shkollor.

Tilley, Christopher
1994 A Phenomenology of Landscape, Places, Paths and Monuments. Oxford: Berg Publishers.

Veselaj, Zeqir
2010 Bjeshkët e Nemuna- perla natyrore e Kosovës. Prishtinë: Regional Environmental Center for Central and Eastern Europe.

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Staying at one Place While Leading a Life Shaped through Seasonal Migration:

A Contradiction in Terms?

Wulf Frauen

Abstract. – It is hardly news to anthropologists and economists also that different economic activities require different modes of living. In short, one could sum up as follows: the social structure and distinctive culture of a group are influenced by their means of livelihood. A society's livelihood then again is a correspondence with its natural environment and its material needs are culturally influenced. Some of these livelihoods may structure the life of a social group seasonally. An example would be the Iranian pastoral nomadism which can be considered a specific *genre de vie*. My contribution will describe this specific way of life by analysing the socio-cultural structure of a mountain community in Kerman, Iran. The interesting thing about the community studied is that they do not follow a seasonal migration pattern any more. Nevertheless, the social life of the community is still shaped through their past in various ways. My contribution will show how the past of a community is quintessential to understanding its present and vice versa. [*Iran, Kerman, seasonality, pastoral nomadism, identity*]

Introduction and Research Interest

The present paper deals with the normative effects that a community's correspondence[1] with seasonality can have for their respective social structure and, in a broader sense, culture. We all experience seasonality in the changes of our environment while our blue planet makes its way around the life-giving ball of hot plasma in the centre of the solar system. Winter becomes spring, spring becomes summer, summer becomes fall and fall

1 Following Tim Ingold (Ingold 2013), I understand human beings as being in "correspondence" with their environment.

turns into winter again and the circle is closed just to start again as it always has done since the world began turning. In many so-called "modern" societies, however, this change is marked through little more than an increase in the prices of certain foods and the necessity to put on (or off) a jacket. Hence, we almost tend to forget that in many non-European contexts and throughout most of mankind's history the necessity to cope with these seasonal changes was crucial for surviving. This human-nature correspondence can result in various ways to deal with the changing seasons. The one that is portrayed here is a seasonal migration from an area of cold climate to an area of warm climate in the winter and vice versa in the summer. This example is used to make a broader argument: I argue that the correspondence with the changing seasons can shape a group in a normative sense so that even after a change in the mode of coping with seasonality, the previous mode of living can still be traced in a community. To illustrate this claim, I employ a case study from the mountains of Kerman, southeast Iran.[2] Today the community under study lives in a small village with the name Bagh-e Borj and its main economic activity is the mining of stones. Until 70 years ago, however, they used to be pastoral nomads who followed a seasonal migration pattern. Their lives were fully adjusted to this seasonal migration. The interesting thing now is that although they became sedentary, their lives are still shaped by these seasonal movements. I will illustrate this by giving a brief overview of the ethnographic context, describing the past of the community and then showing that the past as pastoral nomads is still distinctive for their lives and (collective) identity today. Finally, we might ask ourselves if we wouldn't find more traces of seasonality in our own lives than we would expect at first glance.

A Village in the Mountains of Kerman

Kerman

Located in the southeast of Iran, Kerman province is the largest province of the country and covers roughly 11 per cent of its territory (Borjian 2017). The population density is low and so is the urbanisation ratio in

2 Funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation), Collaborative Research Centre ResourceCultures - SFB 1070/3 - Project number 215859406.

comparison with the rest of the country (58% to 68%, Zanjani/Nejatian 2017). In the East, the province borders on the *Dašt -e Lut* ("Plain of Emptiness"), a gigantic salt desert that is one of the hottest and driest places in the world. The province's centre is dominated by a plateau and a succession of mountain chains that stretch mostly from northwest to southeast (Borjian 2017). These mountains offer shelter to the settlements and are also important for their water supplies. To this day, irrigation through underground channels (*Qanāt* or *kārīz*[3]) that transport the water long distances from the mountains to the settlements remains important to the region. The province contains mostly arid or semi-arid zones and, like most of the Iranian plateau, suffers from a shortage of water (Borjian 2017). As argued by Habib Borjian in the Encyclopaedia Iranica, it can be stated that the division into warm and cold zones (*Garmsīr* and *Sardsīr*) is key to understanding Kerman and its people (ibid.). Since this dynamic is also crucial for the main argument of the present paper, this concept will be described later in detail.

Two of the previously mentioned mountain chains run almost parallel to each other and form the highland basin in which the town of Kerman, the capital of the province of the same name, is located. South of the town they approach each other, collide and form a big mountain massif. This mountain massif breaks up again just north of the modern town of Ǧīroft into the highland plain of Esfandaqeh (*Dašt-e Esfandaqe*) to the west of the city and a mountain chain with the name *Jebāl Bārez* to its east. When I first drove from Kerman to Jiroft, the appearance of the city lights in the lowland plain seemed to be like a foggy island in the darkness as we came down the mountains and approached the city. The following section will describe the Jiroft region in more detail.

Jiroft

The town of Jiroft is the capital of the county of the same name (*Ŝahrestān-e Ǧīroft*). Different climate zones meet in Jiroft – cold, warm and moderate (Badanj 2008). A warm wind blowing from the mountains in the north and northeast towards the plain of Jiroft in summer reduces the otherwise unbearable humidity. The locals call this wind *Hušā* or *Kuhbād* – the "wind

3 *Kārīz* is the original Persian term, *Qanāt* is of Arabic origin. Today both terms are used in Iran synonymously.

of the mountain" (Badanj 2008). A local motif on carpets is called *abr bād* – "clouds in the wind". Jiroft is known for being suitable for agriculture and locals are proud to refer to the area as "Little India" (*hend-e kučak*). It produces both warm and cold weather crops due to its different climate zones (ibid.).

An area where cold-climate crops are grown is the highland plain of Esfandaqeh west of Jiroft. The crops are brought to Jiroft via a small road that crosses the Halil Rud just south of the Jiroft Dam northeast of the town. After crossing the river, the road leads up into the mountains and I remember how surprised I was by the sudden change in the environment as I first followed it on my way to a small village at the outer end of the plain of Esfandaqeh. The name of this village is Bagh-e Borj.

Bagh-e Borj

Bagh-e Borj is located at the outer west end of the *Dašt-e Esfandaqeh* at an altitude of nearly 2500 m. It is situated at the foot of a mountain range that reaches elevations up to 3800 m. One of the summits of this chain used to be called "Tower," in Persian *Borǧ* (Ibrāhīmī/Ibrāhīmī-Pūr 2017: 95). This might explain why the village is called "The Garden of the Tower" (*Bāġ-e Borǧ*). The village consists of two parts, the "upper part" (*Bāġ-e Borǧ-e bālā*) and the "lower part" (*Bāġ-e Borǧ-e pāyīn*). What makes the two spatially separated parts one village is the fact that only members of one extended family live in both parts: the *ṭāyefa* Eskandery. A ṭāyefa is a kinship group that follows strict endogamous marriage patterns. The Eskanderies have a strong sense of being one unit and hence consider the two parts to be one village. Little do they care that a census conducted by the Islamic Republic in 2006 indicates otherwise.[4]

The primary livelihood of the villagers is the mining of stones, supported by animal husbandry and small-scale agriculture. The mining of stones only became important around 1950 when chromite was discovered in the area, a crystalline mineral containing high levels of chromium which is needed to manufacture stainless steel. Prior to 1950, the character of the settlement was fundamentally different and so was the life of the Eskanderies: the Eskanderies were pastoral nomads who followed a seasonal

4 The census speaks of two villages with populations of 118 and 48 persons respectively (SCI 2006).

migration pattern and whose existence was based on animal husbandry. Hence, they lived in the mountains for only half the year and where there are solid houses today, there used to be tents.[5] I argue that, all differences considered, the seasonal migration still constitutes the double helix of the *ṭāyefa*, although it is not even performed anymore. The following section will justify this seemingly contradictory claim.

Fig. 1: The lower part of the village (Bāġ-e Borǧ-e pāyīn) (W. Frauen)

Iranian Pastoral Nomadism and the Seasonal Migration of the ṭāyefa *Eskandery*

Iranian Pastoral Nomadism

Although there are various pastoral nomadic groups in Iran which are far from being uniform, certain common characteristics can be stated. The first is the dependence on animal husbandry as the term 'nomadism' already indicates: it derives from the Ancient Greek term *nomádos* which can be translated by "being on pastures" (Fischer 2011: 304). A second one is, unsurprisingly, a high degree of mobility. E. Ehlers, in his entry on Iranian pastoral nomadism in the Encyclopaedia Iranica, adds a "…dependence on the herds and their products" (Ehlers 2011) which, however, seems to be

5 Of course, not exactly at the same spot, I merely refer to the broader area.

a doubling of the first point. A last point worth mentioning is a basically social characteristic first emphasized by F. Barth in his famous account *Nomads of South Persia* (Barth 1961) and repeated many times since: the autonomous and self-sustaining character of the single households which are basically independent from each other.

Given the aspects outlined above, which could be applied to other nomadic groups outside of Iran as well, one fundamental characteristic is still missing. This characteristic is what caused Ehlers to call Iranian pastoral nomadism a specific *genre de vie* (Ehlers 2011) and it is connected to seasonality: Iranian pastoral nomadic groups always migrate from an area of cold climate in the mountains where they stay during the summer to an area of warm climate in the lowlands where they spend their winters. Two indigenous terms are crucial here: *Sardsīr* and *Garmsīr*. The terms refer to distinct microclimates with equally distinct flora and faunas. The differences cannot be reduced to "warm" and "cold" as the most common definition shows: *Sardsīr* starts where date palms can be planted no more (Bobek 1952). Ehlers, therefore, once stated that it is '…the big achievement of the nomads […] to have successfully combined the use of these high and low habitats into an economically fully viable form of animal husbandry' (Ehlers 2002: 41). This seasonal migration combining the two habitats is precisely what the *ṭāyefa* Eskandery did prior to 1950.

The Seasonal Migration of the Eskanderies

At that time, the Eskanderies used the area of Bagh-e Borj as their Sardsīr, where they spent the summers when the temperatures in the lowlands of southern Kerman could easily reach 50 degrees or more. However, when in late August/September the temperatures in Bagh-e Borj dropped noticeably and a cold wind began to blow across the *Dašt-e Esfandaqeh*, they packed their belongings and drove their herds to a place called Zahmakān which constituted their *Garmsīr*. In late March/April of the following year, they followed the same pattern vice versa and returned to the mountains. They continued this pattern with the same reliability that turns winter back into spring. Their track led them over a small mountain ridge down to the plain of ṣūġān which can already be considered an area of warm climate. The Eskanderies, however, continued their track through a small mountain gorge formed by the Mordan River (*Tang-e Mordan*) to Zahmakan. Here the group split up as some of them continued further south to the plain

of Faryab only to reunite with the rest of the group in spring to return to Bagh-e Borj.

The story could end here if this pattern didn't raise a crucial question right at the start: if the individual households are both fundamentally independent of each other and mobile at the same time, what exactly holds the group together? In the event of an argument, which certainly occurred occasionally, nothing could stop a household from simply leaving the group. Of course, this would have been harmful in the long run, as some practices related to the herds and the seasonal migration itself can be carried out more efficiently as a medium-sized group. Nevertheless, it is hard to imagine that in the heat of an argument this consideration alone would have kept a household from leaving the group. Still, this de facto hardly ever happened. I argue that although the problematic configuration, high mobility and seasonal migration along with egalitarian households, are no longer present, the explanation can still be seen in the village. The following section aims to illustrate this.

Common Descent and Kinship as a Result of the Correspondence with Seasonality

Here we come back to the most striking characteristic of the ṭāyefa Eskandery, briefly mentioned above: the strict endogamy practised by the group. This pattern is legitimised among the Eskanderies through the strong belief in a common descent: all villagers believe themselves to be descendants of a man with the name Karbalāʾ Bārānī who came to the area roughly 350 years ago. It is believed that Karbalāʾ Bārānī was a righteous man who bore almost mythical traits. This prompts the villagers to engage in practices that bear a certain similarity to practices otherwise carried out in Iran in connection with a tomb of one of the descendants of one of the Shia Imams (*Imāmzādeh*). The following, very illustrative passage taken from an interview conducted in Bagh-e Borj may illustrate this:

Villager: "Sir Karbalāʾ Bārānī was a faithful and religious (*muʾmen wa moʾtaqed*) man. Because of that the people, from 300 years ago till now, still (*hanūz*) they have a special worship (*ehterām-e ḫāṣṣ*) [for Karbalāʾ Bārānī] and they go to his tomb, they do a pilgrimage (*ziyarāt*) [to his tomb]. People who, for example, don't have children, they go there and do a prayer, of course in the name of God (*beh esm-e ḫodāwand*). And then, they get children, thanks to God!"

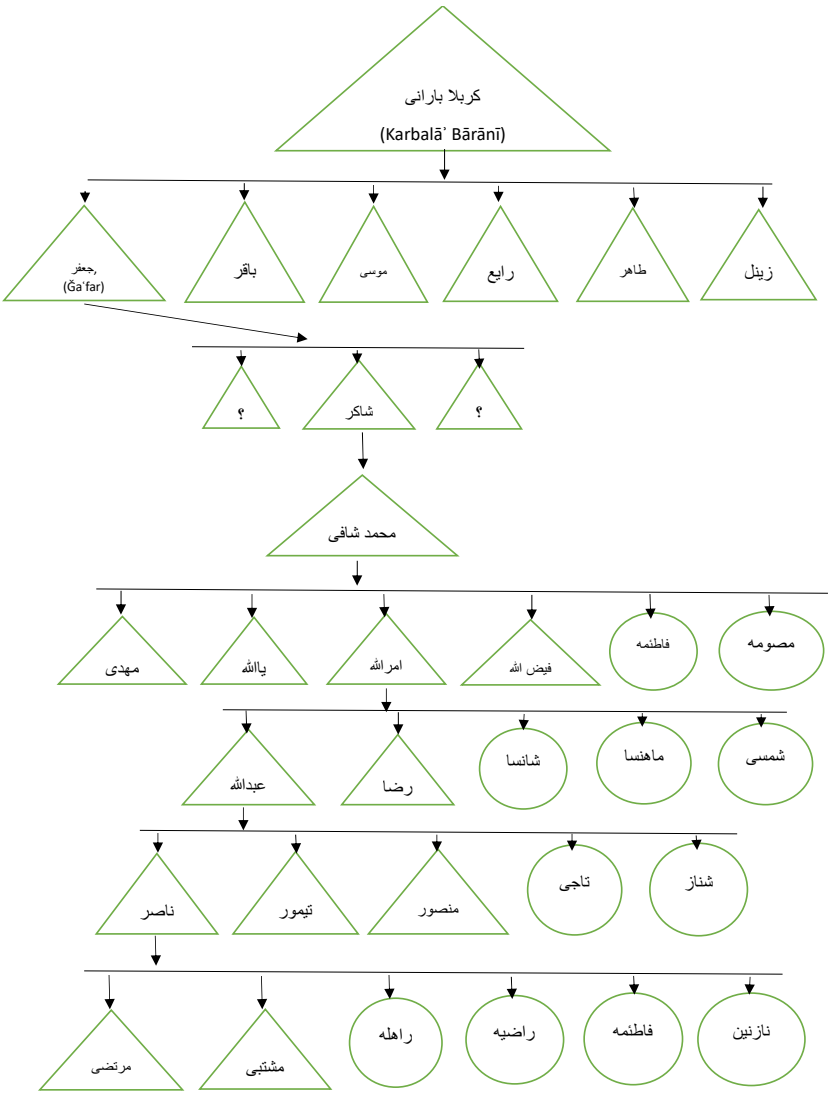

Fig. 2: Genealogy of elderly villager. The common ancestor Karbalāʾ Bārānī is at the top, and each line below corresponds to a generation (taken from W. Frauen, forthcoming).

The belief in a common descent is what binds the *ṭāyefa* Eskandery. This sets a normative standard for all members of the *ṭāyefa*: no descendant of Karbalā' Bārānī shall marry anyone who is not. This principle was called *dayn-dār* by the villagers when I asked them about it. Although a precise translation is difficult, I believe the best way to translate this term is to say, "staying truthful [to the lineage]". And staying truthful to the lineage is what the villagers do: to this day, marriages outside the *ṭāyefa* are very rare among women and never among men. Most villagers can trace their lineage straight back to Karbalā' Bārānī, as the following diagram may illustrate:

The elderly villager N. sketched this genealogy by heart without consulting any references. Of course, he could only do this from his position in the *ṭāyefa* and not from someone else's. But the other villagers would be able to do the same from their respective positions. It is this reconnection to a common descent that gives the Eskanderies their place in the world and establishes their understanding of being a group that belongs together.

What seems to serve no obvious purpose nowadays, however, was crucial for the group in the past. It established an obligation and commitment to stay together and to cooperate in the days of seasonal migration.

Conclusion: A Community of Pastoral Nomads Mining Stones in the Mountains

The Eskanderies no longer conduct their seasonal migration. Since their main occupation nowadays is the mining of stones, they stay in the mountains the entire year. Over the years, they eventually traded their tents for solid houses that are better equipped to deal with the cold in winter. This didn't happen overnight, though. In 1950, the first villagers began to settle down while the majority were still going and returning with the seasons. Only thirty years later, when the vast majority of the ṭāyefa had abandoned their old *modus vivendi*, the first houses were built. This could be interpreted as both an internal and external commitment that they wouldn't return to their old way of life anytime soon. Very few of the villagers I spoke to remember the seasonal migration, but many still remember the freezing nights in their tents during winter. A narrative topos in the village was that the villagers (still) called themselves *'ašāyer* – nomads. This was surprising to me at first, since they obviously didn't fit into the European idea of nomads, at least not anymore. Later, however, I began to understand this concept. For them, being a nomad is probably less tied to mobility than

to the way of living in a *ṭāyefa*. I said in the last chapter that the active recourse to Karbalā' Bārānī and their endogamous marriage patterns no longer serve an obvious purpose anymore. But on closer inspection they do: they are still crucial to the villagers' identity. This is part of a complex nexus in which a correspondence with seasonality associated with a specific kind of resource management (pastoral nomadism) established a way of life based on a common understanding of what it means to be in the world. These ideas that are connected to specific values do not fade away easily – even if the villagers are mining stones for the time being.

References Cited

Badanj, M.
2008 Jiroft i. Geography of Jiroft Sub-Province (last updated 2012). <https://www.iranicaonline.org/articles/jiroft-i-geography-of-jiroft-sub-province>[20.10.2023]

Barth, Fredrik
1961 Nomads of South Persia. The Basseri Tribe of the Khamseh Confederacy. Oslo: Oslo University Press.

Bobek, H.
1952 Beiträge zur klima-ökologischen Gliederung Irans. *Erdkunde* 6: 65–84.

Borjian, H.
2017 Kerman (last updated 2017). <http://www.iranicaonline.org/articles/kerman-geography> [20.10.2023]

Ehlers, Eckart
2002 Mountain Nomadism. In: R. Tapper and J. Thompson (eds.), The Nomadic Peoples of Iran; pp. 40–47. London: Thames & Hudson.
2011 Nomadism (last updated 2011). <https://iranicaonline.org/articles/nomadism> [20.10.2023]

Frauen, Wulf
Forthcoming The Whisper of the Stones. Resources and Resource Management in an Iranian Mountain Village. Tübingen: Tübingen University Press.

Fischer, Anja
2011 NomadInnen. In: F. Kreff, E. Knoll, and A. Gingrich (eds.), Lexikon der Globalisierung; pp. 304–308. Bielefeld: Transcript.

Ibrāhīmī, E. and F. Ibrāhīmī-Pūr
2017 Ğoġrāfīā -ye ṭabī'ī-e Esfandaqeh. Kerman.

Ingold, Tim
2013 Making. Anthropology, Archaeology, Art and Architecture. London: Routledge.

Zanjani, Habibollah, and **Mohammad-Hossein Nejatian**
2017 Kerman. Population (last updated 2017). <http://www.iranicaonline.org/articles/kerman-03-population>[20-10.2023]

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Seasonal vs. Year-Round:

Towards Differentiating Neolithic Lifeways in Western Iran

Hojjat Darabi

Abstract. – The Neolithic period is marked by a combination of both seasonal and year-round settlements in western Iran where mobility played a key role as a resilient behavior through time. However, differentiating these two major lifeways remains controversial as it is difficult to simply assign specific sites to specific corresponding communities. Traditionally, the nature of occupation was mostly classified with special attention given to architectural traces, the natural settings of the sites, and their layout. However, a broader range of evidence could contribute to a better understanding of the various forms of seasonal or year-round occupation during the Neolithic period. [*Western Iran, Neolithic, seasonal occupation, year-round occupation, mobility*]

Introduction

Prior to the Neolithic, the pattern of occupation was based on a nomadic strategy enabled by circulating movement across the landscape (Mortensen 1972). From the 10th millennium BC onwards, however, the first steps were taken towards a multiple and protracted transformation that brought an unprecedented socio-economic creativity to western Iran (Darabi 2022). Although current evidence suggests that some early permanent farming societies emerged in the region at around 8,000 BC, the changing topographical and climatic conditions have always developed a sustainable nomadic way of life, which was accompanied by an increasing dependence on herding and pastoralism. Nomadic life is thus an 'adaptive strategy' to these variable environmental and natural conditions (see Hole 2009). The emergence and development of nomadic pastoralism in the Zagros Mountains has long been discussed (Abdi 2003; 2015; Henrickson 1985; Hole 2004; 2009; Zagarell 1989). To date, a considerable number of Neolithic sites are known in western Iran, spanning different periods (Figs. 1 and 2). However, no systematic integrated approach has yet been applied to identify and

distinguish archaeological signatures of seasonal and year-round lifeways in the region. For the sake of clarity, this short article does not claim to deal with "nomadic pastoralism" and its emergence and development in the region. Instead, it will attempt to highlight the most likely applicable evidence to consider Neolithic seasonal or year-round occupation at a given site. This will pave the way for further in-depth studies on this topic with an integrated approach in the future.

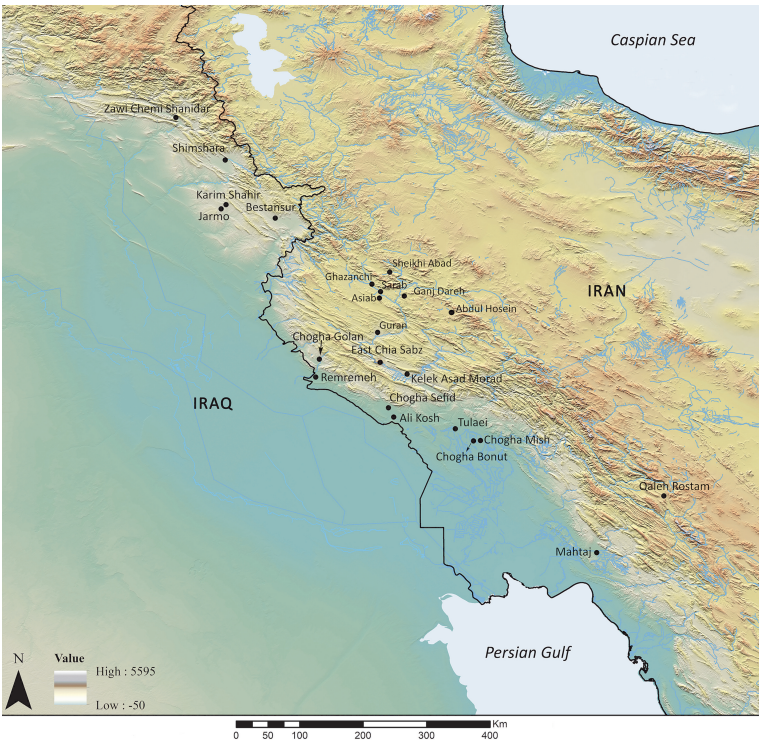

Fig. 1: Map showing key Neolithic sites, including those mentioned in the text, throughout highlands and lowlands of western/southwestern Iran (Map: H. Ghobadizadeh)

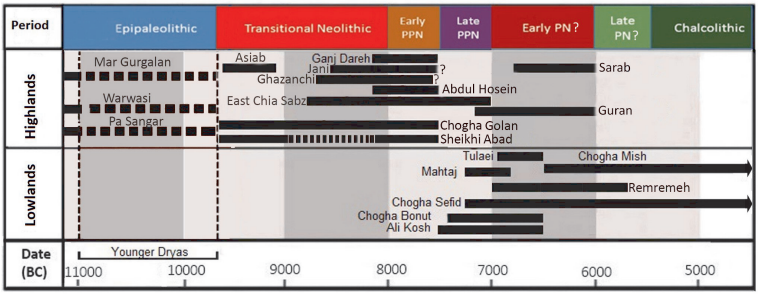

Fig. 2: Chronological placement of the key Neolithic sites in western/ southwestern Iran (Chart: H. Darabi)

Dichotomy of the Neolithic Lifeway

The transition to the Neolithic was a protracted change in various aspects of human life (Ibanez et al. 2018; Matthews and Fazeli Nashli 2022). Throughout the Zagros Mountains, this appears to have occurred during the first two millennia of the Holocene, which encompassed an interconnected socio-economic creativity (Darabi 2022). In other words, this period witnessed fundamental changes to the Neolithic lifeway. As the carrying capacity of the environment increased and societies favored increasing interaction with the environmental resources surrounding them, the way was paved for the introduction of sedentarism. As long as environmental resources were available, a settlement should have survived. However, the variability of elevation, climate, and environment was always a challenge in western Iran. Archaeological records indicate an emerging 'low-level food production' by some societies whose mobility also declined from the mid-9th millennium BC (see Darabi 2022). Some others, however, may have maintained their nomadic way of life. Regardless of the causes of this radical change in subsistence and in the nature of occupation toward the formation of permanent settlements, Neolithic life began to be dichotomized from this transitional stage: farming village life and (semi) nomadic pastoral life. However, the latter seems not to have well-emerged until the late Neolithic, i.e., since the early 7th millennium BC, when a reliance on herding occurred. Seasonal occupation appears to have derived either from village-based pastoralism or from an initial form of nomadic pastoral life (see below). This lifestyle left behind very different archaeological record from sedentary groups in the Neolithic.

Archaeological Materiality

In considering the nature of Neolithic settlements and thus their likely relevant subsistence lifestyle, a variety of archeological records can be addressed: settlement patterns, settlement settings, deposit types, architectural criteria, storage facilities, grinding implements, lithics, and evidence for flora, fauna, and climate. In addition, some analyses such as isotope and micromorphology may contribute to a better study of seasonality and mobility. So far, architectural remains and site settings have been considered the most important clues.

It is generally believed that Neolithic settlements in western Iran were established in the *ecotone* where various environmental resources were available (Darabi 2015; Hole 1987). Natural conditions, such as the availability of fertile land, raw materials, or edible food, may have had different carrying capacities. While this is more consistent with sites exhibiting sedentary life, the seasonal occupations suggest a different natural setting. If attributed to (semi-)nomadic pastoralists, they can be assumed to be in close proximity to pasturelands and migration routes (Hole 2004). Therefore, off-site evidence could provide clues to the nature of occupation. However, it should be remembered that the landscape has long been subject to natural and anthropogenic changes. Some sites, such as Chogha Golan, are located in an environment that is nowadays seemingly poor in resources However, it exhibited a rich Early Neolithic environment and an intensified reliance on local plant species (see Riehl et al. 2013). In terms of spatial organization, the structures correlate with year-round village-type occupation usually intensify while those of nomadic occupation tend to be more spatially distant. The buildings found at Neolithic sites such as Ganj Dareh (Smith 1990) and upper Sheikhi Abad (Matthews et al. 2013) presented agglutination of small spaces suggesting year-round occupation. In contrast, the Neolithic sites attributed to seasonal occupation yielded ash deposits and stone alignments or foundations over a large area, indicating horizontal spatial organization and development over time. This is the case with the sites of Sarab (McDonald 1979), Tulaei (Hole 1974) and Mahtaj (Darabi et al. 2021). This difference might have been triggered by the different lifestyles. The nomadic pastoralists needed space to herd their livestock better. It also caused less social tension (Cribb 1991a: 371). However, this type of spatial division may reduce the visibility of relevant structures during archaeological fieldwork. Furthermore, compared to a village, these structures are more easily affected by subsequent factors such as erosion or sedimentation. They

could thus be seen as scatters of stone boulders whose original arrangement or plan is rather difficult to determine (Fig. 3). As it has been argued with regard to East Chia Sabz (Darabi et al. 2011) and Guran (Mortensen 2014), a general change from a seasonal to year-round occupation can be inferred in western Iran.

Fig. 3: Stone scatters correlated with seasonal occupation at Mahtaj, southwestern Iran (Photo: H. Darabi)

Undoubtedly, storage facilities occupy a special place in the consideration of seasonal and year-round occupation of a given site. Storage is known as 'self-insurance' in response to food shortages (see Kuijt 2009). It also enables people to live annually rather than seasonally. However, both villagers and nomadic herders have favored food storage, although the relevant characteristics may vary. At Ganj Dareh there was clear evidence of storage facilities in the form of extra-mural pits or intra-mural large clay jars or bins (see Smith 1990). At a regional level, the extent of storing at various sites is not yet known.

We assume that places occupied year-round generally have larger and more varied grindstones than seasonal campsites. The abundance of grinding stones of different sizes and types at Chogha Golan (Conard and Zeidi 2013) may indicate a sedentary life. In contrast, this is not the case at the later campsite of Sarab (see McDonald 1979). As far as lithics are concerned, it can be imagined that there are few shiny sickle blades at seasonal campsites, whereas a considerable amount of such lithic types can be expected in agrarian villages, which can be detected either on a macroscopic or microscopic level. In general, there must have been a greater variety of daily activities in year-round occupations than in seasonal campsites. If this is the case, the former should have a broader and more intensive archaeological repertoire (lithics, objects made of bone and clay, pottery, etc.).

When it comes to the nature of occupation, the study of faunal and floral collections deserves special attention. In this respect, migratory birds, commensals and seasonal plants such as wild pistachios could testify to the season or nature of inhabitation. In the lower layers of Guran, for example, remains of migratory birds indicate occupation of the site in early spring (Mortensen 2014). The Early Neolithic settlements do not show a predominance of livestock. While goats were herded sporadically since the 9th millennium BC (Zeder 2008), the domestication of sheep seems to have occurred at the transition from the aceramic to the ceramic Neolithic. Both animals, especially goats, are well suited to the nomadic lifestyle. In contrast, the domestic pig is an animal not well-adapted to mobility (see Flannery 1983). The early appearance of domestic cattle, attributed to the end of the Neolithic in the Zagros (see Arbuckle et al. 2016), may also indicate a better adaptation of this animal to year-round rather than seasonal nomadic life. However, one should be aware of environmental and behavioral changes of the species. The change of climate has always played an important role in directing different types of human occupation. In western Iran, a general shift to a climatic optimum occurred at the beginning of the Holocene (Stevens et al. 2001). However, the effects of subsequent Rapid Climatic Change (RCC) and in particular the so-called 9.2 ka and 8.2 ka events are not yet known, although they may have influenced the degree of mobility in the region.

The use of isotopic analysis contributes to a better study of seasonality and mobility (see Mashkour 2004). Stable strontium analysis recently performed on human remains from Ali Kosh indicates high mobility at the site (Soltysiak 2021; personal communication), a regional pattern that was predominant in the 8th millennium BC throughout the lowlands. Early

villagers in western Iran relied on a mixed agro-pastoral economy. Therefore, the presence of corrals or pens in a year-round inhabited village or seasonal pastoral camp is of great value. Micromorphological analysis has shown a concentration of animal dung in the upper layers of Sheikhi Abad, suggesting pens or corrals adjacent to the living spaces (Matthews et al. 2014). This clearly indicates an early form of village-based pastoralism or an agro-pastoral village-life in the central Zagros.

Concluding Remarks

Since the Transitional Neolithic (ca. 9,800–8,000 BC), a dichotomy of life seems to have taken place in western Iran (see Fig. 2). We assume that societies moved from a seasonal to a year-round way of life over time. However, it appears that this was not a synchronous and pervasive phenomenon throughout the region. Apparently, two main types of settlement developed since the 8th millennium BC: seasonal and year-round. It is generally believed that (semi-)nomadic pastoral life evolved from emerging sedentarism when the number of herds exceeded carrying capacity of agro-pastoral villages (see Abdi 2015). Some communities thoroughly oriented themselves to the nomadic pastoral way of life in western Iran where topographic and climatic variability has been an effective factor. Despite this very long co-existence of seasonal and year-round lifeways, their archaeological signatures are very little known. The current article attempted to highlight the most applicable evidence in this regard. As discussed before, there is a variety of evidence that one can look at in differentiating Neolithic seasonal and year-round lifeways. Furthermore, previous ethnoarchaeological research into village and nomadic life could significantly add to our knowledge (see Cribb 1991a, b; Hole 1979, 2004, 2009; Kramer 1982; Mortensen 1993; Watson 1979). A major barrier comes from similar materiality of both seasonal and year-round occupations resulting from an intensive interaction between their corresponding settlers (e.g., see Bernbeck 1992). This brings to the fore the role of laboratory analyses to supplement classical studies of archaeological finds. Recently, chemical analysis of lipid residues in ceramics and bones of ruminant animals has shown use of dairy products since the late Neolithic in Iran (see Casanova et al. 2023). This could contribute to better understanding of the nature of different lifeways as we may suppose that the diet of nomadic pastoralists relied on dairy products.

Finally, an improved integrated approach is apparently required to be deployed with regard to a given site. If this occurs, one might better infer the existence of seasonal and year-round settlements throughout the region. This will help to create better modeling of seasonality and mobility and their degree in the Neolithic western Iran.

References Cited

Abdi, Kamyar
2003 The Early Development of Pastoralism in the Central Zagros Mountains. *Journal of World Prehistory* 17: 395–448.
2015 Towards an Archaeology of Pastoralism. The Near East and Beyond. *International Journal of the Society of Iranian Archaeologists* 2: 1–32.

Arbuckle, S. B., Max D. Price, Hongo, **Hitomi**, and **Banu Öksüz**
2016 Documenting the Initial Appearance of Domestic Cattle in the Eastern Fertile Crescent (Northern Iraq and Western Iran). *Journal of Archaeological Science* 72. <https://doi.org/10.1016/j.jas.2016.05.008>[18.10.2023]

Bernbeck, Reinhard
1992 Migratory Patterns in Early Nomadism. A Reconsideration of Tepe Tula'i. *Paléorient* 18: 77–88.

Casanova, Emmanuelle, Hossein Davoudi, Antoine Zazzo, et al.
2023 Lipid Preservation in Ceramics and Bones from the Iranian Plateau. Implications for Dietary and Chronological Reconstructions. *Journal of Archaeological Science. Reports* 48 <https://doi.org/10.1016/j.jasrep.2023.103908> [18.10.2023].

Conard, N. and **M. Zeidi**
2013 The Ground Stone Tools from the Aceramic Neolithic Site of Chogha Golan, Ilam Province, Western Iran. In: F. Borrell, J. J. Ibáñez, and M. Molist (eds.), Stone Tools in Transition. From Hunter-Gatherers to Farming Societies in the Near East; pp. 365–375. Bellaterra (Barcelona): Universitat Autònoma de Barcelona. Servei de Publicacions.

Cribb, R.
1991a Mobile Villagers. The Structure and Organization of Nomadic Pastoral Campsites in the Near East. In: C. S. Gamble and W. A. Boismier (eds.), Ethnoarchaeological Approaches to Mobile Campsites; pp. 371–394. Michigan: Ann Arbor. [*International Monographs in Prehistory. Ethnoarchaeological Series*] 1.
1991b Nomads in Archaeology. New Studies in Archaeology. New York: Cambridge University Press.

Darabi, Hojjat
2015 An Introduction to the Neolithic Revolution of the Central Zagros, Iran. British Archaeological Reports International Series. Oxford: Archaeopress.
2022 The Creative Millennia. Highlighting the Transitional Neolithic (ca. 9800–8000 BCE) in the Central Zagros, Iran. *Journal of Archaeological Studies* 30/2: 37–57.

Darabi Hojjat, Reza Naseri, Ruth Young, and **Hassan Fazeli Nashli**
2011 The Absolute Chronology of East Chia Sabz. A Pre-Pottery Neolithic site in Western Iran. *Documenta Praehistorica* 38: 255–65.

Darabi, Hojjat, Pernille Bansgaard, Amaia Arranz-Otaegui, et al.
2021 Investigating Early Neolithic Occupation of the Lowlands of Southwestern Iran. New Evidence from Tapeh Mahtaj. *Antiquity* 95/379: 27–44.

Flannery, Kent V.
1983 Early Pig Domestication in the Fertile Crescent. A Retrospective Look. In: T. C. Young, P. E. L., Smith, and P. Mortensen, (eds.), The Hilly Flanks and Beyond. Essays on the Prehistory of Southwestern Asia in Honor of Robert J. Braidwood; pp. 163–188. Chicago: The Oriental Institute of the University of Chicago.

Henrickson, E. F.
1985 The Early Development of Pastoralism in the Central Zagros Highlands (Luristan). Iranica Antiqua 20: 1–42.

Hole, Frank
1974 Tepe Tula'i. An Early Campsite in Khuzistan, Iran. *Paléorient* 2: 219–242.
1979 Rediscovering the Past in the Present. Ethnoarchaeology in Luristan, Iran. In: C. Kramer, (ed.), Ethnoarchaeology. Implications of Ethnography for Archaeology; pp. 192–218. New York: Columbia University Press.
2004 Campsites of the Seasonally Mobile in Western Iran. In: K. von Folsach, H. Thrane, and I. Thuesen, (eds.), From Handaxe to Khan. Essay Presented to Peder Mortensen on the Occasion of his 70th Birthday; pp. 67–86. Aarhus: Aarhus University Press.
2009 Pastoral Mobility as an Adaptation, In: J. Szuchman (ed.), Nomads, Tribes and the State in the Ancient Near East; pp. 261–284. Chicago: The Oriental Institute of the University of Chicago. [*Oriental Institute Seminars* 5]

Hole, Frank (ed.)
1987 The Archaeology of Western Iran, Smithsonian series in Archaeological Inquiry, Washington, D.C: Smithsonian Institution Press.

Ibañez, Juan José, Jesus González-Urquijo, Luis Cesar Teira-Mayolini, and **Talia Lazuén**
2018 The Emergence of the Neolithic in the Near East. A Protracted and Multi-regional model, Quaternary International 470: 222–252. <https://doi.org/10.1016/j.quaint.2017.09.040> [18.10.2023]

Kramer, Carol
1982 Village Ethnoarchaeology: Rural Iran in Archaeological Perspective. New York: Academic Press.

Kuijt, Iain
2009 What Do We Really Know about Food Storage, Surplus, and Feasting in Preagricultural Communities? *Current Anthropology* 50: 641–644.

Mashkour, Marjan
2004 Tracing Ancient "Nomads." Isotopic Research on the Origins of Vertical Transhumance in the Zagros Region. *Nomadic People* 7: 36–47.

Matthews, Roger, and **H. Fazeli Nashli**
2022 The Archaeology of Iran from the Paleolithic to the Achaemenid Empire, New York: Routledge.

Matthews, Roger, W. Matthews, and **Y. Mohammadifar**
2013 The Earliest Neolithic of Iran. 2008 Excavations at Tappeh Sheikh-e Abad and Tappeh Jani. Central Zagros Archaeological Project. Oxford: Oxbow Books.

Matthews, Wendy, L. Shillito, and **S. Elliott**
2014 Neolithic Lifeways: Microstratigraphic Traces within Houses, Animal Pens and Settlements. In: A. W. R. Whittle and P. Bickle (eds), Early Farmers. The View from Archaeology and Science; pp. 251–279. Oxford: Oxford University Press.
[*Proceedings of the British Academy* 98]

McDonald, Mary M. A.
1979 An Examination of Mid-Holocene Settlement Patterns in the Central Zagros Region of Western Iran, Ph.D. Dissertation, Department of Anthropology, Toronto: University of Toronto.

Mortensen, I. D.
1993 Nomads of Luristan. Copenhagen. Rhodos International Science and Art Publishers.

Mortensen, Peder
1972 Seasonal Camps and Early Villages in the Zagros. In: P. Ucko, R. Tringham, and G. W. Dimbleby (eds.), Man, Settlement and Urbanism; pp. 293–297. London: Duckworth.
2014 Excavations at Tepe Guran. The Neolithic Period. Leuven: Peeters. [*Acta Iranica* 55]

Riehl, Simone, M. Zeidi, and **N. J. Conard**
2013 Emergence of Agriculture in the Foothills of the Zagros Mountains of Iran. *Science* 341: 65–67.

Smith, Phillip E. L.
1990 Architectural Innovation and Experimentation at Ganj Dareh, Iran. *World Archaeology* 21/3: 323–335.

Stevens, L. R., H. E. Jr. Wright, and **Emi Ito**
2001 Proposed Changes in Seasonality of Climate during the Late Glacial and Holocene at Lake Zeribar, Iran. *The Holocene* 11/6: 747–755.

Watson, Patty Jo
1979 Archaeological Ethnography in Western Iran. Tucson: University of Arizona Press.
[*Viking Fund Publications in Anthropology* 57]

Zagarell, Allen
1989 Pastoralism and the Early State in Greater Mesopotamia. In: C. C. Lamberg-Karlovsky (ed.), Archaeological Thought in America; pp. 280–301. Cambridge and New York: Cambridge University Press.

Zeder, Melinda A.
2008 Animal Domestication in the Zagros. An Update and Directions for Future Research. In: E. Vila, L. Gourichon, A. M., Choyke, and H. Buitenhuis (eds.), Archaeozoology of the Near East VIII; pp. 243–277. Lyon: de Bocard. [*Travaux de la Maison de l'Orient et de la Méditerranée* 49]

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Seasonality, Monumentality, and Resources at Early Neolithic Göbekli Tepe, Part 1:

Seasonality of People and Monuments

Laura Dietrich and Oliver Dietrich

Abstract. – During the 10th/9th millennia BCE, Early Neolithic Göbekli Tepe saw massive building activities that included the making and moving of up to 5.5-meter-high monolithic limestone pillars, the pillars' decoration and their arrangement within monumental stone buildings. In the present paper we collect arguments for the seasonality of activities at the site. We propose that seasonal, regular, and large-scale reconstruction of buildings and refashioning of imagery and the resulting processes of learning have helped to actively preserve key concepts related to the identities of the builders.
[*Turkey, Göbekli Tepe, Neolithic, monumentality, seasonality*]

Introduction

Seasonality, as used in archaeology, often refers to the course of the year, the seasonal changes in climate and environment that determine abundancy or scarcity of resources and may force human groups to adapt to survive (Halstead and O'Shea 1989). Mobility is one possible adaptation, which has been seen as a defining criterium for hunter-gatherers. In a highly influential study, Binford (1980) described foragers and collectors as two extremes of a spectrum of seasonal mobility: groups of foragers move to food resources, while collectors stay at key locations and move food to their camp. This has led to an emphasis on resource availability in arguments for and against seasonality: presence/absence of seasonally available plants or animals, determination of seasonal variation in the age and sex composition of the killed animals, and isotope studies on animal and human remains have become major criteria (e.g., Bartosiewicz et al. 1994; Valamoti 2007; Blaise and Balasse 2011; Delhon et al. 2020; Wang et al. 2023). Other types of seasonality beyond those determined by food sources have sometimes been overlooked. Religious cycles motivating people to gather at special sites

at certain points in time are one example (Blömer 2021), seasonal work another. The availability of manpower for labor-intensive work like house construction could be dependent on the availability of surplus to provide a work feast (e.g., Adams 2004). We want to approach this topic for a site whose relation to seasonality is not obvious at first glance: Göbekli Tepe. The analysis comes in two parts. Part 1 will discuss the archaeological evidence for seasonality and characterize the seasonal practices as far as possible. Part 2 will use the anthropological concept of "RessourceCultures" to discuss the possible reasons for and the foundation of seasonal activities at the site. The limited available space dictates the concise character of the argumentation and restrictions in the bibliography cited.

Göbekli Tepe

Göbekli Tepe is situated on a high point of the Germuş mountain range above the Harran Plain in southeastern Turkey (Fig. 1). The site is well-known for its early monumental round buildings (Schmidt 2012; Kurapkat 2015) constructed by rather small post-Ice Age groups (Dietrich and Dietrich 2019) with a subsistence based on hunting gazelle, aurochs, and wild ass (Peters and Schmidt 2004; Lang et al. 2013) and the extensive collecting of wild cereals (L. Dietrich 2021) during the earliest Neolithic of Upper Mesopotamia (Pre-Pottery Neolithic: PPNA, 9600–8800 BCE, PPNB, 8800–7000 BCE).

The monumental round buildings of the PPNA and Early PPNB are formed of up to 4-meters-high, T-shaped limestone pillars interconnected by walls with bench-like structures along the inner mantles arranged around two even larger central pillars (Fig. 2). Many pillars are intricately decorated with – mostly zoomorphic – reliefs. Depictions of human arms, hands, and garments on some of the pillars indicate their anthropomorphic character; most common are two parallel bands on their front sides, which also could refer to clothing (Schmidt 2012: 70, 113; Dietrich 2024: 43; Fig. 2).

Fig. 1: Göbekli Tepe, seen from the south, during excavations in 2007 (Photo: O. Dietrich)

Fig. 2: Excavations in Building D at Göbekli Tepe in 2010. The central pillars have reliefs of arms, hands, and garments (Photo: O. Dietrich)

Six monumental buildings have been excavated so far (Buildings A–D, F, H). A partially overlapping occupation phase attributed to the early and middle PPNB is characterized by smaller rectangular or subrectangular buildings of about 3 x 4 m, sometimes with smaller T-shaped pillars that lack the rich decorations of the older ones (Schmidt 2012: 216–221; Kurapkat 2015: 18–22). The site further consists of the Neolithic quarry areas, which are situated immediately next to the mound on the limestone plateaus (Schmidt 2009).

Klaus Schmidt (2001; 2012) interpreted Göbekli Tepe as a special site, dedicated to cult and ritual, with just a few people permanently living there (Schmidt 2005: 34; Schmidt 2009: 201-202). Groups within a catchment area of about 200 km around the site, a radius determined by the distribution of similar art and symbolism (Tomasso 2013), would have gathered there seasonally for rituals (Schmidt 2005: 32f.). In Schmidt´s view, judging from the imagery that centers on dangerous animals, severed human heads carried away by birds, etc., these rituals had a strong connection to a death cult (Schmidt 2009: 201; Schmidt 2012). The interpretation as a ritual center or sanctuary was based on the impression that substantial domestic buildings contemporary to the large pillar buildings, a stable water supply, and some components of material culture were absent from the site. We will not discuss the ritual function of the buildings here (Dietrich 2024) but focus on the evidence for seasonal peaks in on-site activities and the implications for constructing and maintaining large buildings.

Markers of Seasonality: Subsistence

No evidence for domesticated plants or animals has been found at Göbekli Tepe. The hunted game was predominantly gazelle, aurochs, and Asiatic wild ass, in this order of frequency (Peters and Schmidt 2004: 206–208). Gazelles are migratory and only gather in the area between midsummer and autumn (Lang et al. 2013), which may also be the case for Asiatic wild ass (Pöllath et al. 2018: 32). Wild einkorn, barley and possibly wheat/rye, as well as almonds and pistachio are present at Göbekli Tepe, food sources available in the same period (Neef 2003). The site thus fulfils the "classic" criteria for seasonality and the evidence fits well with new data from partly contemporary Nevalı Çori, where mobility/seasonality well into the PPNB have been proven by isotope and aDNA studies on human and animal remains (Wang et al. 2023). Göbekli Tepe has produced the so far largest

ensemble of grinding and pounding equipment known from a PPN site (L. Dietrich 2021), but no large silos have been identified. Production seems to have been for immediate use. The overall capacity of the cisterns found up to now is 153 m^3 (Herrmann and Schmidt 2012). This limits the possible number of people permanently present on site, as rainwater would only be constantly available during autumn/winter to refill the cisterns.

Markers of Seasonality: Domestic Buildings and Sedimentology

Already in 2011, deep soundings had revealed simple small (max. 2 m diameter) circular to ellipsoidal constructions formed of up to three layers of unworked limestones next to the monumental buildings (Schmidt 2011: 47–48), a type of architecture well-known from the Epipaleolithic to PPNA settlements of the region (Özdoğan 2017). Renewed excavations have confirmed this (Kinzel and Clare 2020). A site plan with building phases has been published; alas, so far, the proposed horizons are largely not backed by radiocarbon data or references to the building or sediment stratigraphy. It is fairly reasonable though to address the features as evidence for rather transient settlement architecture contemporary with the older phase of the monumental buildings.

The younger rectangular buildings are known in larger numbers and in more detail (Kurapkat 2015: 18–22, 29–47). Some are contemporary with the later phases of the monumental buildings (O. Dietrich 2011). They present clear evidence for domestic practices at the site, e.g., the processing of cereals (L. Dietrich 2021). The complex house types with designated storage areas which are well-attested at contemporary permanent settlements in the near vicinity are still absent though (Özdoğan 2017). The grinding stones also underline the connection between building types and specific activities: Even in the phase of contemporaneity with the domestic rectangular architecture, primary contexts from the monumental buildings have only produced grinding stones used for ochre processing (L. Dietrich 2021: 68f., 156).

Although fire use at the site is evident from burnt flint, carbonized plant material, cooking stones, and ash layers (L. Dietrich 2021: 132), no permanent fireplaces or ovens have been reported for the monumental and rectangular buildings. Kurapkat (2015: 18–22, 29–47) identified several phases of use, repair, and abandonment for the rectangular buildings, which also fits well with seasonal site use. Sedimentological analysis by K.

Pustovoytov (2006) confirmed this, revealing humic horizons within the site´s stratigraphy in multiple places. Such horizons can form in intervals lasting from 10 years to several centuries and point to repeated temporary hiatus in parts of the site (Pustovoytov 2006: 707).

Markers of Seasonality: The Material Culture

Additional evidence for the (temporal) presence of people from a larger catchment area comes from the material culture. Göbekli Tepe has produced a mixture of iconographic elements characteristic of specific regions in Upper Mesopotamia (Tomasso 2013: 143f., Fig. 6). The site so far has produced the broadest range of PPN depictions.

The lithic tool set at the site is similar to domestic sites and the complete chaîne opératoire is detectable; the flint is local (Schmidt 2001, 51–53, recently reaffirmed by Breuers 2022). Schmidt (2001: 51–53) highlighted the diversity of projectile points as a characteristic of the site. PPNA types include el-Khiam, Helwan and Aswad points; PPNB types Byblos and Nemrik points and more rarely Nevalı Çori points. Nemrik points have an eastern distribution within the Fertile Crescent; el-Khiam and Byblos points are distributed to the west, within the Levant; Nevalı Çori points are distributed more to the north (Kozłowski 1999). Obsidian use seems marginal compared to flint with a total of around 450 pieces. Analyses of 100 samples (Batist 2009: 159; Appendix A) attest a diverse set of Eastern Anatolian Bingöl A/Nemrut Dağ and Bingöl B obsidian, as well as Göllü Dağ East material from Central Anatolia. The low frequency of obsidian artefacts combined with the diversity of sources point to materials brought to the site by non-local individuals. Similar observations have been made for other find categories. Spacer beads, for example, are characteristic of the Turkish Tigris region but do appear in considerable numbers at Göbekli Tepe (Özdoğan 2016: 140f.). The material culture thus speaks in favor of the presence of groups with diverse geographical origins at the site.

A Site in Flux: Markers for Seasonality in Buildings and Imagery

So far, evidence for seasonality and the presence of groups with a diverse geographic origin at Göbekli Tepe has been collected. We will now explore how this relates to the architecture and imagery.

Fig. 3: Pillar 2 in Building A (Photo: O. Dietrich)

Monuments made of stone are often implicitly or explicitly associated with durability and the preservation of long-term memory or ‘cultural memory` as opposed to more unstable everyday or “communicative” memory (Assmann 1988). For Göbekli Tepe, a strong connection of the imagery with the identities of the builders has been proposed. The predominance of images of certain animal species in particular buildings has been mentioned early on and was interpreted along the lines of totemic animals of the groups of people using the buildings (Peters and Schmidt 2004: 208–209, Pl. 2). The pillar reliefs are often of a narrative character and may encode mythological

stories important to these groups (Schmidt 2013). Most interpretations have seen Göbekli Tepe as a 'static' site with buildings and reliefs in a finished state fixing these meanings in stone.

Building research speaks against this model, proving permanent construction, deconstruction, and reconstruction activities (Piesker 2014; Kurapkat 2015). The interior space of Building C, for example, was successively reduced by adding new circular walls (Piesker 2014). Building A was subjected to such intense repeated and extensive alterations that it would be possible to speak about at least three buildings (re)constructed using older material in the same place (Kurapkat 2015: 49–60). The frequency of minor changes within these building phases is high (Kurapkat 2015: 48–94), hinting at seasonal sessions of work in the buildings (Dietrich et al. 2017; Dietrich and Dietrich 2019).

So far, these seasonal (re-)working events have only been noticed on the building level. A closer look at the pillars and their reliefs extends the evidence; one example may suffice here to illustrate this. Pillar 2 is the northeastern central pillar of building A (Figs. 3–4; Schmidt 2012: 122–125). Its unadorned head has suffered modern damages. The reliefs on the western broadside and on the northern narrow side, however, are intact.

The broadside has an aurochs, a fox, and a crane in a vertical arrangement, and faintly visible traces of two earlier reliefs. On the northern (rear) side, a bucranium is located just below the T-head and above the relief bands. The position of the relief bands and the bucranium on the rear side of the pillar indicate that the pillar stands in secondary position. In Fig. 4, 1 the relative relief heights have been indicated with colors from dark red (high) to light green (low), Fig. 4, 2 shows the chronological sequence of at least three relief layers. Without going into detail here, Pillar 2 can be likened to a palimpsest in the state of reworking. This processual, unstable, and unfinished character is true for all decorated surfaces inside Göbekli Tepe's monumental buildings and a strong indicator of work not performed continuously with the aim of finalization but seasonally with the aim of coming back and continuing. It seems that the process of seasonal and ritualized (re)making of images and (re)shaping of buildings was a central aspect of the site. Work feasts have been proposed as a possibility of explaining how small hunter-gatherer groups were able to gather the work forces necessary for these activities at Göbekli Tepe (Dietrich et al. 2017; Dietrich and Dietrich 2019). The seasonal fluctuation in site use intensity speaks in favor of this model.

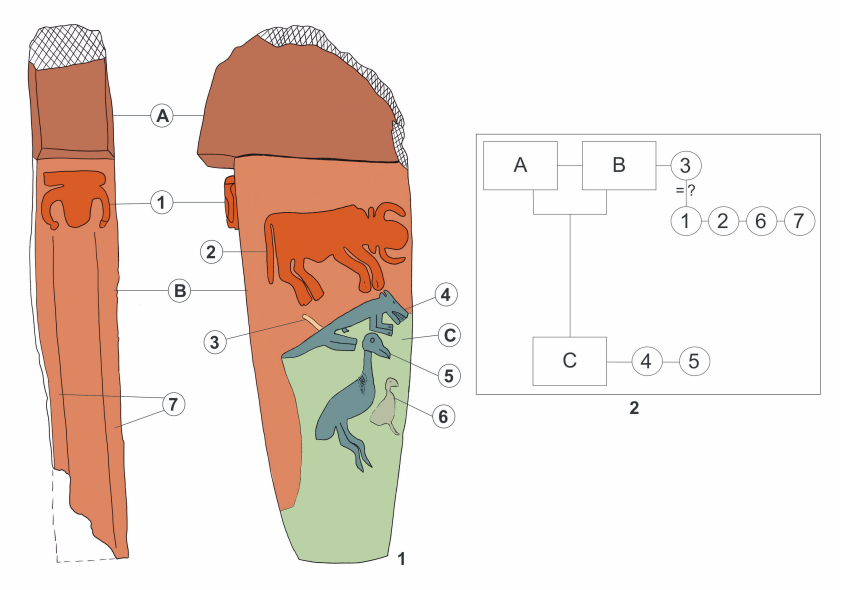

Fig. 4: Relief phases on Pillar 2 in Building A (Drawing: O. Dietrich)

Conclusion

The monumental buildings at Göbekli Tepe were used during the PPNA and into the early PPNB, before the transition to agriculture had been completed. All images at Göbekli Tepe show wild animals; they are concerned with the world of hunter-foragers, their group identities, and mythology. There is clear evidence for seasonal fluctuation in the number of people present on site, with peaks dictated by the availability of surplus to support larger groups of workers between midsummer and autumn. Material culture hints at diverse geographical backgrounds of these groups.

Within the time of use of the monumental buildings, constant concern with the buildings and images is visible. Buildings, image carriers, and images were subjected to frequent change, without finalization. Göbekli Tepe is not a durable monument conserving memory over this long period in unchanged form. The imagery has a processual and fluid character mirroring the seasonal character of site use. It seems that the process of making images and reshaping buildings was central at Göbekli Tepe. The constant engagement with buildings and images and the resulting processes

of learning could have helped to actively preserve key concepts related to the identities of the builders. Drawing on Pierre Bourdieu´s (1977) thoughts, working at Göbekli Tepe could be understood as a ritualized and seasonal social practice upholding group identities, knowledge, and the habitus of the hunter-forager.

References Cited

Adams, Ron L.
2004An Ethnoarchaeological Study of Feasting in Sulawesi, Indonesia. *Journal of Anthropological Archaeology* 23: 56–78.

Assmann, Jan
1988 Stein und Zeit. Das „monumentale" Gedächtnis der altägyptischen Kultur. In: J. Assmann and T. Hölscher (eds.), Kultur und Gedächtnis; pp. 87–114. Frankfurt: Suhrkamp.

Bartosiewicz, László, Ede Hertelendi, and **András Figler**
1994 Seasonal Dating of Hand-collected Fish Remains from a Prehistoric Settlement in Hungary. In: W. van Neer (ed.), Fish Exploitation in the Past. Proceedings of the 7th Meeting of the ICAZ Fish Remains Working Group: pp. 107–114. Tervuren: Koninklijk Museum voor Midden-Afrika.

Batist, Zachary
2009 Obsidian Circulation Networks in Southwest Asia and Anatolia (12,000 – 5700 B.P.): A Comparative Approach. Master's Thesis School of Graduate Studies McMaster University Toronto. <https://macsphere.mcmaster.ca/handle/11375/16528> [18.10.2023]

Binford, Lewis
1980Willow Smoke and Dogs' Tails. Hunter-Gatherer Settlement Systems and Archaeological Site Formation. *American Antiquity* 45: 4–20.

Blaise, Emilie, and **Marie Balasse**
2011 Seasonality and Season of Birth of Modern and Late Neolithic Sheep from South-Eastern France Using Tooth Enamel $\delta^{18}O$ Analysis. *Journal of Archaeological Science* 38/11: 3085–3093.

Blömer, Michael
2021The Sanctuary of Jupiter Dolichenus at Doliche and the Seasonality of Sacrifice. In: A. Lichtenberger and R. Raja (eds.), The Archaeology of Seasonality; pp. 165–180. Turnhout: Brepols.

Bourdieu, Pierre
1977 Outline of a Theory of Practice. Cambridge: Cambridge University Press.

Breuers, Jonas
2022Diachrone Studien zur Lithik des Göbekli Tepe. Locus 166, Raum 16 und die Sedimentsäule aus Gebäude D. PhD Dissertation, Universität zu Köln. urn:nbn:de:hbz:38-625305

Delhon, Claire, **Didier Binder**, **Pascal Verdin**, and **Arnaud Mazuy**
2020 Phytoliths as a Seasonality Indicator? The Example of the Neolithic Site of Pendimoun, South-Eastern France. *Vegetation History and Archaeobotany* 29: 229–240.

Dietrich, Laura
2021Plant Food Processing Tools at Early Neolithic Göbekli Tepe. Oxford: Archaeopress.

Dietrich, Oliver
2011Radiocarbon Dating the First Temples of Mankind. Comments on 14C-Dates from Göbekli Tepe. *Zeitschrift für Orient-Archäologie* 4: 12–25.
2024Shamanism at Early Neolithic Göbekli Tepe, southeastern Turkey. Methodological contributions to an archaeology of belief. *Prähistorische Zeitschrift 99*: 9–56. https://doi.org/10.1515/pz-2023-2033

Dietrich, Oliver, and **Laura Dietrich**
2019 Cult and Feasting as Incentives for Cooperative Action among Hunter-Gatherers at Early Neolithic Göbekli Tepe. In: R. Dunbar and K. Hockings (eds.), Alcohol and Humans. A Long and Social Affair; pp. 93–114. Oxford: Oxford University Press.

Dietrich, Oliver, Jens Notroff, and **Klaus Schmidt**
2017Feasting, Social Complexity and the Emergence of the Early Neolithic of Upper Mesopotamia. A View from Göbekli Tepe. In: R. J. Chacon and R. Mendoza (eds.), Feast, Famine or fighting? Multiple Pathways to Social Complexity; pp. 91–132. New York: Springer.

Halstead, Paul, and **John O'Shea**
1989Introduction: Cultural Responses to Risk and Uncertainty. In: P. Halstead and J. O'Shea (eds.), Bad Year Economics. Cultural Responses to Risk and Uncertainty; pp. 1–7. Cambridge: Cambridge University Press.

Herrmann, Richard A., and **Klaus Schmidt**
2012Göbekli Tepe – Untersuchungen zur Gewinnung und Nutzung von Wasser im Bereich des steinzeitlichen Bergheiligtums. In: F. Klimscha, R. Eichmann, C. Schuler, and H. Fahlbusch (eds.), Wasserwirtschaftliche Innovationen im archäologischen Kontext; pp. 57–67: Rahden/Westfalen: Leidorf.

Kinzel, Moritz, and **Lee Clare**
2020Monumental – Compared to What? A Perspective from Göbekli Tepe. In: A. Gebauer, L. Sørensen, A. Teather, and A. de Valera (eds.), Monumentalising Life in the Neolithic: Narratives of Change and Continuity; pp. 31–50. Oxford: Oxford University Press.

Kozłowski, Stefan Karol
1999 The Eastern Wing of the Fertile Crescent. Late Prehistory of Greater Mesopotamian Lithic Industries. Oxford: Archaeopress.

Kurapkat, Dietmar
2015Frühneolithische Sonderbauten auf dem Göbekli Tepe in Obermesopotamien und vergleichbare Bauten in Vorderasien. Doctoral Dissertation, Technische Universität Berlin.

Lang, Caroline, Joris Peters, Nadja Pöllath, et al.
2013Gazelle Behaviour and Human Presence at Early Neolithic Göbekli Tepe, South-East Anatolia. *World Archaeology* 45/3: 410–429.

Neef, Reinder
2003 Overlooking the Steppe-forest. A Preliminary Report on the Botanical Remains from Early Neolithic Göbekli Tepe (Southeastern Turkey). *Neo-Lithics* 2/03: 13–16.

Özdoğan, Eylem
2016 Neolithic Beads of Anatolia. An Overview. In: Ünsal Yalçın (ed.), Anatolian Metal VII. Anatolia and Neighbours 10,000 Years Ago. Dedicated to Mehmet Özdoğan; pp. 135–151. Bochum: Deutsches Bergbaumuseum.

Özdoğan, Mehmet
2017 The Archaeology of Early Farming in Southeast Turkey. In: Y. Enzel and O. Bar-Yosef (eds.), Quaternary of the Levant; pp. 723–731. Cambridge: Cambridge University Press.

Peters, Joris, and **Klaus Schmidt**
2004Animals in the Symbolic World of Pre-pottery Neolithic Göbekli Tepe, South-Eastern Turkey. A Preliminary Assessment. *Anthropozoologica* 39: 179–218.

Piesker, Katja
2014Göbekli Tepe. Bauforschung in den Anlagen C und E in den Jahren 2010–2012. *Zeitschrift für Orient-Archäologie* 7: 14–54.

Pöllath, Nadja, Oliver Dietrich, Jens Notroff, et al.
2018 Almost a Chest Hit. An Aurochs Humerus with Hunting Lesion from Göbekli Tepe, South-eastern Turkey, and its Implications. *Quaternary International* 495: 30–48.

Pustovoytov, Konstantin
2006Soils and Soil Sediments at Göbekli Tepe, Southeastern Turkey. A Preliminary Report. *Geoarchaeology* 21/7: 699–719.

Schmidt, Klaus
2001Göbekli Tepe, Southeastern Turkey. A Preliminary Report on the 1995–1999 Excavations. *Paléorient* 26/1: 45–54.
2005Die „Stadt" der Steinzeit. In: H. Falk (ed.), Wege zur Stadt; pp. 25–38. Bremen: Hempen.
2009Göbekli Tepe. Eine Beschreibung der wichtigsten Befunde erstellt nach den Arbeiten der Grabungsteams der Jahre 1995–2007. In: K. Schmidt (ed.), Erste Tempel – frühe Siedlungen; pp. 187–223. Oldenburg: Isensee.
2011Göbekli Tepe. In: M. Özdoğan, N. Başgelen, and P. Kuniholm (eds.), The Neolithic in Turkey. New Excavations and New Research. The Euphrates Basin; pp. 41–83. Istanbul: Arkeoloji ve Sanat Yayinlari.
2012Göbekli Tepe. A Stone Age Sanctuary in South-Eastern Anatolia. Berlin: exOriente.
2013 „Adler und Schlange" – „Großbilder" des Göbekli Tepe und ihre Rezeption. In: Ünsal Yalcin (ed.), Anatolian Metal VI; pp. 145–152. Bochum: Deutsches Bergbaumuseum.

Tomasso, Sonja
2013Les representations zoomorphes du PPNA et du PPNB au nord du Proche-Orient. *Zeitschrift für Archäologie Außereuropäischer Kulturen* 5: 141–157.

Valamoti, Soultana
2007 Detecting Seasonal Movement from Animal Dung: An Investigation in Neolithic Northern Greece. *Antiquity* 81/314: 1053–1064.

Wang, X., E. Skourtanioti, and **M. Benz**
2023 Isotopic and DNA Analyses Reveal Multiscale PPNB Mobility and Migration across Southeastern Anatolia and the Southern Levant. *PNAS* 120 /4 <https://doi.org/10.1073/pnas.2210611120>[18.10.2023]

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in the Monumental Buildings A-D, F and H." *Archaeologia Euphratica* (co-edited with Klaus Schmidt [†] – in print); "Early Neolithic imagery in Flux. A Case Study on the Reliefs of Building F at Göbekli Tepe, Southeastern Turkey." *Documenta Praehistorica* 50 (co-authored with Julia Wagner – 2023); "Aiud - Guşteriţa II - Şpălnaca II - Uioara de Sus. Gedanken zu den Formationsprozessen und der Interpretation von bronzezeitlichen Großhorten des südlichen Karpatenbeckens." *Dacia N. S.* LXV (2021). See also References Cited.

Seasonality, Monumentality, and Resources at Early Neolithic Göbekli Tepe, Part 2:

Göbekli Tepe understood as a Resource Culture

Wulf Frauen

Abstract. – Very few discoveries in the history of archaeology can claim to have fundamentally shaken previously well-established paradigms in the discipline. One of the few that belongs to this rare category is Göbekli Tepe, a site in southeast Turkey. It represents a monumental structure from the 10th millennium BC that, apparently, has been built by rather small post-Ice Age groups of hunter-gatherers. This discovery shakes established assumptions due to a number of reasons, in the first place because archaeologists previously did not believe that such groups would be able to fulfil such monumental projects; or rather – it was assumed – such groups would not feel any desire to do so. Consequently, the most fundamental questions of "how" and "why" remain unanswered. The present contribution tackles these questions by using the novel concept of "ResourceCultures." Specifically, it approaches the site as a ResourceComplex around a central, immaterial resource of "belief" that prompted different groups of hunter-gatherers to cooperate seasonally at that site. Following the ResourceCultures approach, I use "belief" as a category of analysis to provide some hints about the underlying dynamics of why the site was built. [*Göbekli Tepe, seasonality, ResourceCultures, hunter-gatherers*]

Research Interest

Göbekli Tepe represents a place where, in the words of Klaus Schmidt, humankind for the first time used their creative power within a framework that was not provided by nature but established through a literally monumental effort by themselves (Schmidt 2010: 21; Schmidt 2013: 145). As such, the importance of the site can hardly be overemphasised. Previously, men left with the "Ice Age Art" impressive testimonies of a spiritual world, which Göbekli Tepe's long-time excavator Klaus Schmidt believed to be reminiscent of the myths of the Dreamtime of the Australian Aborigines (Schmidt

2013: 145). For these people of the Pleistocene, natural places like special landscape formations, rock shelters or caves, or even just special trees, marked the place for sacred acts (Schmidt 2013: 145). With Göbekli Tepe, a site enters the scene in the 10th millennium BC that shows a fundamentally different character. Ever since the site's discovery, two questions have troubled the archaeologists: *how* could rather small post-Ice Age groups of hunters and gatherers build such a monumental site and *why* did they make the tremendous effort to do so?

The present section tries to provide hints about the answers to these crucial questions by employing an innovative approach provided by the Collaborative Research Centre (SFB 1070) of the University of Tübingen.[1] The SFB established a new understanding of resources that overcomes classical, yet artificial, dichotomies such as material/immaterial or individual/collective and allows the use of certain resources as categories of analysis to understand the societies that produce and reproduce them since a society's values are reflected in its resources. It will be shown that Göbekli Tepe can be understood as a ResourceCulture in the sense of the SFB at whose centre stand the intangible resources "belief" and "ideology/worldview". The following section will describe this theoretical framework briefly.

Theoretical Framework: Resources, ResourceComplexes, ResourceAssemblages and ResourceCultures

The SFB uses an analytical approach that is called "The 4-R-concept". As the term indicates, it consists of 4 elements: Resources, ResourceComplexes, ResourceAssemblages and ResourceCultures.

The starting point is that the SFB understands resources from a strict constructivist perspective: what becomes a *resource* for a society is not self-evident but depends upon the cultural context (Hardenberg et al. 2017: 14). This derives from the insight that all resources are cultural since they acquire their meaning within a framework of culturally shaped ideas (Hardenberg 2021: 142). Resources, hence, reflect the values of the society that produced them and relate to the very basic ideas of a community of how to live, what to strive for and, eventually, what makes up humanity (ibid.). These values, just like the resources they are connected with, can

1 Funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation), Collaborative Research Centre ResourceCultures – SFB 1070/3 – Project number 215859406.

be understood as an expression of the historical processes that produced them (ibid.). This enables the SFB to use resources as an analytical category to understand the society that uses them (Hardenberg et al. 2017: 14). As a means to achieve cultural values, resources can be both: material and immaterial.

Resources hardly exist as isolates but always occur in a combination of objects, knowledge and practices (ibid.: 15). These networks of material and immaterial elements are called *ResourceComplexes*. They are needed to make the resource at its centre useable and are hence rationally planned in a goal-oriented way (Hardenberg 2021: 143). In ResourceComplexes, we can see that values are organised in chains of value-transformations: resource A is used to achieve resource B, which is used to achieve resource C, and so on (ibid.: 142).

While the use of a resource at a specific point of time can mostly be described adequately through the heuristic of the ResourceComplex, in a diachronic perspective it becomes obvious that the relationships between the elements in such a network are hardly subject to human planning. They are influenced by factors beyond the actual complex and evolve in a contingent way. In this diachronic perspective, the network takes the character of an assemblage in the sense of Deleuze and Guattari (Deleuze and Guattari 1992 [1980]). The SFB, hence, coined an additional concept with the name *ResourceAssemblage* to understand these contingent developments over time that also take Latour's actor-network theory (Latour 1996; 2005), and Descola's thoughts on animism and ontology (Descola 2011) into account.

With the heuristics of the ResourceComplex and ResourceAssemblage it is possible to analyse the dynamics of how social groups and identities are shaped by resources (Hardenberg 2021: 144). The final aim is to develop dynamic models that combine resources, the use of resources and the corresponding socio-cultural dynamics (ibid.: 144). These models emerge from the contingent developments that occur over time on the one hand and the everlasting human endeavour to give meaning to the world that surrounds us on the other. The SFB calls these dynamic models *ResourceCultures*. ResourceCultures are defined as follows: "Resource Cultures may be understood as specific, dynamic models that connect certain resources, social forms of use, social relations, units and identities in a contingent, yet meaningful way" (Hardenberg et al. 2017: 20). After outlining the theoretical foundation, the following section will describe some outstanding characteristics of the site that are of importance for the further discussion.

Göbekli Tepe – the Place

It is not only their monumentality that makes the Stone-Age special buildings of Göbekli Tepe outstanding but also the diversity of their artistic decoration with large-format sculptures and reliefs that were hitherto unknown from older "sacred sites of the Stone Age" (Schmidt 2010: 15). The conception of the buildings is always the same: the space is formed by a recurring element, namely the stone, T-shaped, monolithic pillars which are arranged in a circle (ibid.: 15). The core of the building is then formed by two free-standing, especially large T-pillars, which are surrounded by the similar, smaller pillars (ibid.: 15). The T-pillars are gigantic, the outer ones stand up to 4 m high and the inner ones are up to 5.5 m high (Dietrich et al. 2019: 152).

The T-shape of the pillars can be interpreted with “pleasing certainty”, as Schmidt remarks: it is the reproduction of a stylised but undoubtedly human-shaped body (Schmidt 2010: 16). Several specimens have bent arms on the broad sides of the arrow shaft that leave no doubt that this anthropomorphic interpretation is correct (ibid.).

There is countless imagery of animals at the site: the pillars are richly decorated with animal reliefs and several sculptures were also found. Schmidt realised that the different kinds of representations of the animals probably represent different meanings: while the reliefs on the pillars could be interpreted as characteristics of these anthropomorphic figures, the sculptures seem to carry a different purpose which is more difficult to interpret (Schmidt 2008: 65). Their often aggressive, snarling character makes it possible to speculate about an apotropaic function (Schmidt 2008: 64). With this background in mind, the following sections will describe Göbekli Tepe first as a ResourceComplex to answer the “how” and after that as a ResourceCulture to answer the “why.”

Göbekli Tepe – a ResourceComplex Around Belief, Ritual and Work

The most obvious elements of the ResourceComplex in Göbekli Tepe are nutrition, people, and technological knowledge. Seen in a chain of value transformation (Robbins 2018: 160), nutrition needs to be sufficient to provide an energy surplus that enables the people not only to survive but

also to carry out the work on the site. As outlined by Dietrich above,[2] subsistence was merely based on hunting and collecting. Both must have been carried out extensively by a lot of people so that not only the work on the site itself but also gathering enough food required collaboration. Hence, another critical element of the ResourceComplex becomes visible: social cohesion. Social cohesion is, in another value transformation, an essential precondition for collaboration. The question emerges of how this crucial element was provided. Here, another important factor comes into play: seasonality. As shown by Dietrich above, there is profound archaeological evidence that the work on the site was only seasonal, but, in this time, it was intense and brought together a lot of people.

This seems to constitute a contradiction since hunter and gatherers are believed to have been organised into small, egalitarian bands, innocent of power and complexity, thus matching Rousseau's vision of humanity in its original state (Graeber and Wengrow 2015: 599). Complexity, as is the classical assumption, occurred later after people became sedentary.

Although this assumption is not fundamentally wrong, it represents at least a gross simplification that ignores a variety of exceptions. These exceptions are usually connected with seasonality. To give two early examples: Mauss and Beuchat observed that Inuit winter aggregations brought together huge societies of living and recent deceased just to split up in spring again (Mauss and Beuchat 1979) and small and highly mobile bands of Cheyenne gathered in large settlements in the late summer to prepare for the buffalo hunt, as Lowie reports (Lowie 1948).[3] Graeber, hence, even proposes "a relationship between seasonality and the conscious reversal of political structures" (Graeber and Wengrow 2015: 600).

An especially interesting phenomenon for the case of Göbekli Tepe are the so-called work feasts. These work feasts can mobilise hundreds of people, but they are temporally finite and do not cause any obligations following their end (Dietrich and Dietrich 2020: 102). As argued convincingly by Dietrich and Dietrich, the (seasonal) possibility of providing large amounts of food by, for instance, hunting gazelle could correspond with peaks in site use (ibid.). Gazelles were migratory and an easily accessible large-scale supply of meat between midsummer and autumn. The impressive quantities of gazelle bones that were found at the site can clearly be interpreted as remains of work feasts. These feasts probably resembled a

2 See Part 1, Dietrich and Dietrich, this issue.

3 Both references taken from Graeber and Wengrow 2015.

ritual and had a spiritual foundation – just like the winter gatherings of the Inuit, reported by Mauss, established a sphere that was inaccessible for the rest of the year (Graeber and Wengrow 2015: 606). In the moments of ritual intensity, humans are apparently most clearly aware of their social existence and, hence, capable of creating new social forms (ibid.: 611). In the case of Göbekli Tepe, these seasonal gatherings mobilised a social formation that enabled the people to carry out extensive labour. This work was not only extensive, but it also apparently never ended – as described by Dietrich and Dietrich above in their section, the archaeological evidence indicates that there was permanent construction, deconstruction, and reconstruction. The act of working seems to have been so central to the builders that it became ritualised (Dietrich and Dietrich 2020: 98). This ritualised work must be understood as a celebration of the cosmic order, of shared beliefs in how the world is and how it should be to the builders. This is the double helix of the ResourceComplex of Göbekli Tepe. The ResourceComplex, hence, consists of the following key elements that presuppose each other in a chain of value transformation: belief, ritual, seasonality, social cohesion, cooperation, nutrition, workforce, work, and knowledge.

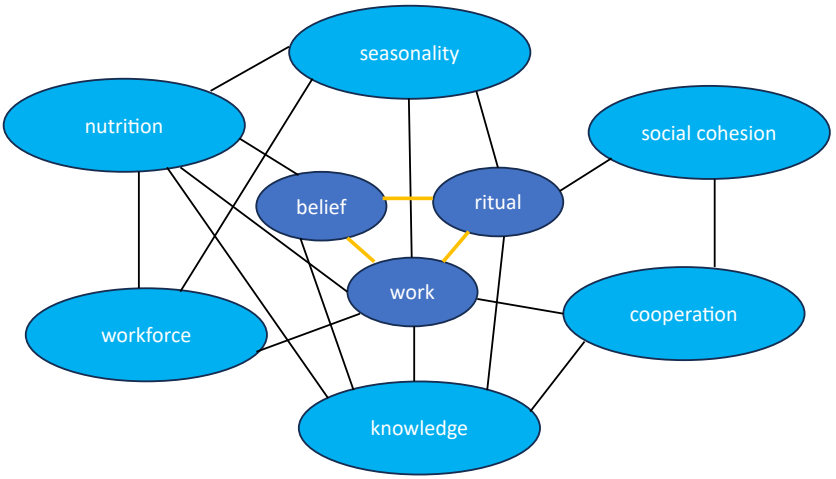

Fig. 1: Simple diagram of the ResourceComplex at Göbekli Tepe (W. Frauen)

Belief as a Category of Analysis

The previous paragraph briefly explained the ResourceComplex of Göbekli Tepe. The heuristic tool of the ResourceComplex, however, merely answers the "how" and not the "why." Hence here, I take the ResourceComplex and its central resource, belief, as starting points to look at Göbekli Tepe as an assemblage and at belief also as a category of analysis. As such, they cannot be understood without the historical process that produced them.

First, it is noticeable that the emergence of the site coincides with the end of the Younger Dryas (12,900 to 11,700 years BP), an abrupt return to near-glacial temperatures lasting roughly a millennium (Clement and Peterson 2008: 1). Hunter-gatherers before and after, as in the ethnographic examples given, did not construct monuments like Göbekli Tepe. Didn't they possess 'belief', the core element of the ResourceComplex in Göbekli Tepe? Of course, they did; the genetic foundations of our species were established at least 160 thousand years ago (Graeber and Wengrow 2015: 598) and the "Ice Age Art" in caves displays a rich and deep (spiritual) understanding of the world. Hence, I propose that their understanding of the world was different. To understand this change, it seems to be fruitful to consider the time preceding the Younger Dryas as well.

The Younger Dryas was preceded by the so-called Allerød Interstadial, a warm period that occurred during the final stages of the Last Glacial Period (Rasmussen et al. 2006: 13).[4] The Interstadial abruptly raised temperatures to almost present-day level and turned the Fertile Crescent within a relatively speaking short period of time from a rather dry and cold steppe to a fertile and moderate environment that held plenty of opportunities for the local population. At this time, some of the hunter-gatherers of the region became sedentary and settlements emerged. These hunter-gatherers are referred to in the literature as Natufian culture (Bar-Yosef 1998). The Natufians already manufactured tools and constructed simple buildings.[5] What the Natufians did not do, however, was build monumental structures

4 The Allerød Interstadial is in the literature also referred to as Bølling–Allerød Interstadial after the parastratotype of Bølling. Rassmusen et al. date the onset of the interstadial to 14,692 BC and the onset of the Younger Dryas to 12,896 BC (Rassmusen et al. 2006: 13). The precise dating is not consistent in the literature. Sometimes Bølling and Allerød are described as two different interstadials divided by the Older Dryas and different time spans are mentioned. For the arguments made here, however, this is of little importance.

5 At the Natufian Site of Eynan, a circular building was discovered that was interpreted as a communal building. It shows geometric planning and probably reflects "the state

like Göbekli Tepe. Perhaps they still lacked some of the necessary knowledge, but the main reason why they did not is another one: they did not see any point in it since nothing in their understanding of the world would have justified such an endeavour.

At this point it makes sense to introduce a classical anthropological concept: Lévi-Strauss' notion of "cold" and "hot" cultures as first outlined in his classic *La pensée sauvage* (Lévi-Strauss 1968: 270). Lévi-Strauss compared ethnographic material from hunter-gatherers all over the world extensively and concluded that these communities were not "primitive" or "backward." They merely operated fundamentally differently. While hot societies (like ours) strive for change, expansion and progress, cold societies try to maintain the status quo and an established equilibrium. These fundamental different *modi operandi* stem from fundamentally different understandings of the world that surrounds us: while the "savage mind" believes in the world as such and understands itself as a part of it, the "tamed mind" believes in itself and understands the rest of creation as being subordinated to it. These different understandings of the world result in different modes of living: cold societies try to adjust their way of living to the nature that surrounds them. Hot societies, on the other hand, try to adjust nature to meet their needs. The concept was later criticised. One main point was that Lévi-Strauss conceived societies in a strictly dichotomous way as either "cold" or "hot." However, this conception reflected Lévi-Strauss' binary understanding of the world rather than real societies. Later, some authors noted that these modi must instead be understood side by side as elements of culture within a society (Erdheim 1988). Moreover, Lévi-Strauss underestimated the dynamic potential of culture, believing that societies can only transition from "cold" to "hot" and not vice versa, which has proven to be incorrect (Assmann 1992). Despite all these shortcomings, the basic idea of "hot" and "cold" is still valid, in my opinion. The argument made here is that some groups of the Fertile Crescent underwent a mental change from cold to hot during the Younger Dryas and developed at least traits of "hot" cultural elements that were subsequently crucial for the construction of Göbekli Tepe.

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of the art of architectural design of their time" (Haklay and Gopher 2015: 13). In southeast Anatolia, settlements occur as early as the second half of the Younger Dryas, as excavated dwellings at Körtik Tepe reveal, although it seems to be "premature to make any culture historical comparisons with other Epipaleolithic cultures of the Near East" (Benz et al. 2017: 11). Later, parallel to Göbekli Tepe, also in the former Natufian area monumental structures occur, for instance in Jericho.

From what we know about the Natufians, it seems that their beliefs showed similarities with an animism in the sense of Descola (Descola 2011).[6] Hence, their understanding of the world equalled more or less what Lévi-Strauss documented for cold societies all over the globe: an emotional bond to the environment in which nature was seen as an extension of the family, though this belief be expressed through totemism (a point that was of particular interest for Lévi-Strauss) or not. In fact, they had less reason to doubt the everlasting generosity of nature than any human group before them: during the Allerød Interstadial, the Fertile Crescent's flora and fauna supported them so generously that they could afford to become at least partly sedentary without changing their mode of living to more labour-intensive *modi vivendi*. Becoming (partly) sedentary was rather an opportunistic move in response to an environment that did not force them to be on the move all the time anymore. This, however, changed drastically with the emergence of the Younger Dryas. To make things worse, this dramatic change happened, relatively speaking, overnight: in Greenland, for example, in only a few decades the temperatures declined by 4-0 °C (7.2-8 °F) (Buizert et al 2014: 1177–80). It is reasonable to assume that this change did not remain without consequences for the Natufians' understanding of the world and that it marked a turning point for the population of the Fertile Crescent: they lost their trust in the world[7] and, I argue, started to believe in themselves. Hence, they turned from a cold culture to a hot one that strived to control the nature that now seemed unpredictable and threatening to them. Early evidence for this change can be found in the Jordan Valley where gigantic granaries were build (Kuijt 2009: 641–644). The most convincing evidence for this assumption is, however, Göbekli Tepe.

6 The most convincing evidence for this assumption is the 12,000-year-old Natufian cave site of Hilazon Tachtit. The method used to construct and seal the grave that was found here suggests that it is the burial of a shaman (Grosman et al. 2008).

7 James Suzman, for instance, notes that the hunter-gatherers at this time lost their previous belief in the bounty of their environment (Suzman 2021, 183). He also sees a connection with the effects of the Younger Dryas that followed the Allerød Interstadial.

ResourceCulture Göbekli Tepe

As mentioned, a ResourceCulture is a model generated from resources, the use of resources and its relation to social groups and identities. All limitations considered; it becomes obvious that the ResourceCulture of Göbekli Tepe has certain characteristics that can be stated. As mentioned above, the central resources in Göbekli Tepe are the immaterial resources of belief and ritual. In the constant, probably seasonal, act of constructing, deconstructing, and reconstructing, it seems as if work became ritualised, as correctly stated by Dietrich and Dietrich (Dietrich and Dietrich 2020: 98).[8] The all-prevailing principles of this ResourceCulture are, hence, the will to shape and create. Everybody who participated in the rituals at the site contributed her/his share through the work that was contributed willingly and collaboratively. This shared work evoked a strong social cohesion that led people to see themselves as part of a larger community that transcended the boundaries of their bands. In social terms, this ResourceCulture stands, hence, for collaboration and the formation of a community that was much larger than the groups in which hunter-gatherers are normally organised. In spatial terms, this ResourceCulture stands for the erection of a gigantic complex that was like a landmark for the society that was established through its construction. This complex served several functions, but one of the most important ones was that it served as a platform for the exchange of innovations, as already argued by Schmidt (Schmidt 2010: 21). The hunger for innovations reflected the prevailing principles of the ResourceCulture that demanded new tools to shape and create. In this sense, this ResourceCulture matches many of the principles that Lévi-Strauss outlined for what he called "hot" cultures. These principles are also reflected in the site's architecture: countless animals are shown in reliefs and sculptures that once led Schmidt to call the site a "Stone Age zoo" (Dietrich 2016). To stay with Schmidt's picture, one might ask who the zookeeper is? The answer is hard to overlook since the gigantic T-pillars literally dominate the site. As mentioned in Chapter 3, these pillars have a clear anthropomorphic character. It is not necessary to speculate whether ancestors or deities that humans formed after their own likeness are shown to state a basic insight: these figures have clearly nothing of the modesty that anthropomorphic

8 The fact that peoples' attitute towards work changed during the Younger Dryas is also emphasized by James Suzman in his book "Work. A History of how we spend our Time". On the pages 184 – 188 he brings this in a connection with Göbekli Tepe. (Suzman 2021) Dietrich's idea of ritualised work is, however, absent in his argumentation.

images made by hunter-gatherers usually had before. On the contrary, they evoke awe and literally stand out. As such, they reflect the Resource-Culture's principle to progress instead of fitting in. Hence, it is hardly a coincidence that Göbekli Tepe lies in the region of the "Golden Triangle" (Schmidt 2013: 145) where subsequently hunter-gatherers became farmers and countless innovations occurred. These innovations were eventually just responses to the demands of the ResourceCulture that created them. As a "Neolithic Package" (Schmidt 2010: 21; Dietrich and Dietrich 2020: 94), these innovations travelled to Europe and changed the course of history. There they played a major role in the development that caused humankind to stand, only a blink of an eye later in human history terms, on the surface of the moon.

References Cited

Assmann, Jan
1992 Das kulturelle Gedächtnis. Schrift, Erinnerung und politische Identität in frühen Hochkulturen. München: C.H. Beck.

Bar-Yosef, Ofer
1998 The Natufian Culture in the Levant. Threshold to the Origins of Agriculture. *Evolutionary Anthropology* 6: 159–177.

Benz, Marion, et al.
2017 A Burnt Pit House. Large Scale Roasting, and Enigmatic Epipaleolithic Structures at Körtik Tepe, Southeastern Turkey. *NEO-LITHICS* 1/17: 3–13.

Buizert, Christo, et al.
2014 Greenland Temperature Response to Climate Forcing During the Last Deglaciation. *Science* 345: 1177–1180.

Clement, Amy, and **L. Peterson**
2008 Mechanisms of Abrupt Climate Change of the Last Glacial Period. *Reviews of Geophysics* 46: 1–39.

Deleuze, Gilles, and **Felix Guattari**
1992 Tausend Plateaus. Kapitalismus und Schizophrenie. Berlin: Merve.

Descola, Philippe
2011 Jenseits von Natur und Kultur. Berlin: Suhrkamp.

Dietrich, Oliver
2016 Emblematic Signs? On the Iconography of Animals at Göbekli Tepe. The Tepe Telegrams.<https://tepetelegrams.wordpress.com/2016/08/16/emblematic-signs-on-the-iconography-of-animals-at-gobekli-tepe/>[30.03.2023]

Dietrich, Oliver, Dietrich, Laura, and **Jens Notroff**
2019 Anthropomorphic Imagery at Göbekli Tepe. In: Jörg Becker, Claudia Beuger, and Bernd Müller-Neuhof (eds.), Human Iconography and Symbolic Meaning in Near Eastern Prehistory. Proceedings of the Workshop held at 10th ICAANE in Vienna, April 2016; pp. 151–166. Wiesbaden: Harrassowitz Verlag.

Dietrich, Oliver, and **Laura Dietrich**
2020 Rituals and Feasting as Incentives for Cooperative Action Among Hunter-gatherers at Early Neolithic Göbekli Tepe. In: R. Dunbar and K. Hockings (eds.), Alcohol and Humans: A Long and Social Affair; pp. 93–114. Oxford: Oxford University Press.

Erdheim, Mario
1988 Psychoanalyse und Unbewußtheit in der Kultur. Frankfurt am Main: Suhrkamp.

Graeber, David, and **David Wengrow**
2015 Farewell to the "Childhood of Man." Ritual, Seasonality, and the Origins of Inequality. *Journal of the Royal Anthropological Institute* 21: 597–619.

Grosman, Leore, Natalie D. Munroc, and **Anna Belfer-Cohena**
2008 A 12,000-year-old Shaman Burial from the Southern Levant (Israel). *Proceedings of the National Academy of Sciences* 105: 17665–17669.

Haklay, Gil, and **Avi Gopher**
2015 A New Look at Shelter 131/51 in the Natufian Site of Eynan (Ain-Mallaha), Israel. *PLoS ONE* 10: 1–16.

Hardenberg, Roland
2021 The Rise of a New Millet Assemblage in India. In: T. Schade, et al. (eds.), Exploring Resources. On Cultural, Spatial and Temporal Dimensions of ResourceCultures; 141–156. Tübingen: Tübingen University Press.

Hardenberg, Roland, Martin Bartelheim, and **Jörn Staecker**
2017 A Sociocultural Perspective on Resources. In: A. Scholz, M. Bartelheim, R. Hardenberg, and J. Staecker (eds.), ResourceCultures. Sociocultural Dynamics and the Use of Resources: Theories, Methods, Perspectives; pp. 13–24. Tübingen: Tübingen University Press.

Kuijt, Ian
2009 What Do We Really Know about Food Storage, Surplus, and Feasting in Preagricultural Communities? *Current Anthropology* 50: 641–644.

Lévi-Strauss, Claude
1968 Das wilde Denken. Übersetzung von Hans Naumann. Frankfurt am Main: Suhrkamp. [1962]

Lowie, Robert H.
1948 Some Aspects of Political Organisation among the American Aborigines. *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 78: 11–24.

Mauss, Marcel and **Henri Beuchat**
1979 Seasonal Variations of the Eskimo. A Study in Social Morphology. London: Routledge & Kegan Paul.

Rasmussen, S. O., K. K. Andersen, A. M. Svensson, et al.
2006 A New Greenland Ice Core Chronology for the Last Glacial Termination. *Journal of Geophysical Research* 111: 1–16.

Robbins, Joel
2018 Where in the World are Values? In: C. Mattingly, R. Dyring, M. Louw, and T. S. Wenzer (eds.), Moral Engines. Exploring the Ethical Drives in Human Life; pp. 155–173. Cambridge/New York: Cambridge University Press.

Schmidt, Klaus
2008 Die zähnefletschenden Raubtiere des Göbekli Tepe. In: Dominik Bonatz, Rainer M. Czichon, and F. Janoscha Kreppner (eds.), Fundstellen. Gesammelte Schriften zur Archäologie und Geschichte Altvorderasiens ad honorem Hartmut Kühne; 61–69. Wiesbaden: Harrassowitz Verlag.
2010 Göbekli Tepe. Der Tell als Erinnerungsort. In: Svend Hansen (ed.), Leben auf dem Tell als soziale Praxis; 13–23. Bonn: Dr. Rudolf Habelt GmbH.
2013 Adler und Schlange: „Großbilder" des Göbekli Tepe und ihre Rezeption. *Der Anschnitt. Zeitschrift für Kunst und Kultur im Bergbau* 25: 145–152.

Suzman, James
2021 Sie nannten es Arbeit. Eine andere Geschichte der Menschheit. München: Beck 2021. [2020]

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Ergonomics and Seasonality:

The Case of Open-air Pottery Workshops (8th–5th centuries BCE)

Raffaella Da Vela

Abstract. – This article analyses the interplay of seasonality and ergonomics in ancient production processes. The archaeological case study is based on open-air pottery workshops in the mountainous region of the Northern Apennines, Italy, during the Iron Age (8th to 5th centuries BCE). Local communities were organised here in dispersed rural homesteads and villages, which in a few cases progressively aggregated into extended urban centers. Production activities in the pottery workshops located outside the settlements were seasonal. The main research question is how seasonality affected the workshop design and the spatial and social interactions within the sociotechnical system of pottery making. The analysis is based on the archaeologically documented sites of production, their structures, and spaces, with particular attention to the traces of periodical reuse, restructuring, and (ritual) disposal. Seasonality and ergonomics are interpreted as heterarchic and intertwined framing factors of pottery production intended as a ResourceComplex, a meshwork of resources and resource-related sociocultural dynamics. [*sociotechnical systems; ResourceCultures; urbanity; community of practices; Etruscans*]

Introduction: Seasonality Studies in the Archaeology of Iron Age Italy

The attention paid to seasonality in studies on the Iron Age Apennines – the long mountain range crossing Italy from north to south – has been quite limited until recent years. In dealing with the internal mountainous areas of the southern regions Lucania and Hirpinia, some current scholarship has studied the impact of transhumance activities for animal breeding on human social life (Santillo Frizell 2004; Heitz 2020). Pedological, zooarchaeological and palaeobotanical data are necessary to confirm the seasonal mobility of shepherds and flocks (Trentacoste et al. 2020). In the northern Apennines, this data has been collected in only a few areas (see Marchesini and Marvelli 2002), and we have to base our analysis on

indirect traces of these activities, such as the spatial distribution and morphology of houses, production systems, and cult practices. In the recently published volume "The Archaeology of Seasonality" (Lichtenberger and Raja 2021), a contribution on Timpone della Motta, an Iron Age site in the southern Apennines, considered the different impacts of seasonality on local societies. This not only involved daily aspects of life such as household structures and economy but also symbolic and religious aspects, such as festivals, sacrifices, and cultic frequentation of caves (Jacobsen et al. 2021). In other contributions to the quoted volume, seasonality is framed within complex urban economic systems, such as construction sites (Carusi 2021) and harbors (Feuser 2021), with a focus on the impact of seasonality on the working life. This last aspect is also the focus of my contribution, which concerns the impact of seasonal rhythms on working life in open-air pottery workshops.

A Closer Look at Seasonality in Ancient Pottery Production Processes

Pottery making is one of the better studied working environments of the Mediterranean Iron Age (Hasaki and Bentz 2020). In pottery studies, seasonality is frequently mentioned under the assumption that some steps of the *chaîne opératoire* could have been difficult – if not impossible – to achieve during the cold and rainy season. This applies, for example, to the availability of fuel and to the drying out of finished vases before the firing (Albero Santacreu 2014: 138–141). These assumptions lead us to the conclusion that an all-year-round production would only have been possible in a very few cases of particularly well-structured and organized urban workshops, with weatherproof fuel storage and a protected indoor working space. In contrast to this, production in open-air workshops was necessarily strongly dependent on seasons. For this reason, seasonality should be considered as a constitutive element of pottery-making and the life of potters in the Iron Age pottery workshops of Pre-Roman Italy which were mostly open-air.

Ergonomics and Seasonality: A Research Question

My research question deals with the interplay of seasonality with the ergonomics of pottery workshops. I adopted here the definition of er-

gonomics proposed by John R. Wilson (2000: 560) which states that ergonomics is "the theoretical and fundamental understanding of human behavior and performance in purposeful interacting sociotechnical systems, and the application of that understanding to design of interactions in the context of real settings." In the following, the heterarchical relation between seasonality and ergonomics will be interpreted using the frame of ResourceCultures. The analytic tools and the conceptual frame relating to ResourceCultures have been developed over the last 10 years within the Collaborative Research Center SFB 1070 RessourcenKulturen at the University of Tübingen (Bartelheim et al. 2021). The term ResourceCultures indicates dynamic models, which enable us to understand the relationship between tangible and intangible resources, and resource-related sociocultural dynamics. Local knowledge of potting and firing will be viewed as a central resource of open-air pottery workshops, here considered as a ResourceComplex – a meshwork of resources and resource-related sociocultural dynamics (Teuber and Schweizer 2020: 11–14) – with ergonomics and seasonality as two of the main framing factors of this meshwork, which underwent a non-linear shift from the middle of the 6thth century BCE onwards.

The Area of Study: The Iron Age Northern Apennines (Italy, 8th–5th century BCE)

My analysis has been conducted using 32 archaeological contexts in the northern Apennines, between the 8thth and 5th centuries BCE (Fig. 1).

The region of the Apennines encompasses different macro-climatic zones: the mountains, the lower hill chains, the alluvial plains, and the wetlands, which are present both in the north, towards the Po Valley, and in the south, towards the Arno Valley. Except for the upper zones (1000 to 2165 m), the climate is continental, with dry, cold winters and hot, wet summers, and two mid-seasons, a temperate spring and a generally rainy fallrainfall. In the Iron Age, the upper mountains were covered by forests, rich in perennial waters and summer pastures. People and animals, as well as knowledge and ideas, were mobile, flowing along a route network whose main trail, a long ridgeway running east–west, was integrated with the routes along the transverse riverine valleys that connected the north and south across the mountain passes. The lower climatic zones were characterized by hill-chains formed by erosion and declining toward the

sea, as well as longitudinal riverine valleys and fertile alluvial foot-hill plains. These lower areas were the most suitable for agriculture and animal breeding and were continuously and densely inhabited. The settlement patterns in the north presented subregional variations, with small- and middle-sized villages and sparse farms (Zamboni 2012: 25f.; Miari and Negrelli 2016: 149), and some major cities in the east, such as Felsina, which had already reached a proto-urban stage in the 8th century BCE (Sassatelli 2010: 208). Some of these cities presented a regular urban plan, for example Marzabotto in a narrow valley (Bentz and Reusser 2008), and Spina on the Adriatic Sea, founded in the middle of the 6th century BCE (Sassatelli 1990: 78). The settlement patterns in the south are less well-known, with the exception of hill-towns such as Fiesole and Artimino and two big cities, Pisa in the west, inhabited since the Villanovan era, and Gonfienti in the east, which can be considered a sort of twin foundation with the above-mentioned Marzabotto in the mid-6th century BCE (Donati et al. 2023). The wetlands, cold in winter and very hot in summer, was also inhabited on both sides of the Apennines. Here, the extreme environmental conditions required a stronger collective effort to construct and maintain the infrastructure (Ciampoltrini 2009) needed by farms, small villages, and larger cities, such as Spina, a proper city on the water (Zamboni 2016). These morphological and climatic features suggest that local communities developed season-specific responses to local environmental conditions in order to manage floods and water scarcity, as also confirmed by the traces of artificial channels, ditches, wells, terraces, and basins in the stratigraphy of some sites.

In the Iron Age Apennines, open-air pottery workshops were attached to villages, small cities, and farms. Their extra- or sub-urban positions made them particularly vulnerable to seasonal changes. Their ergonomics, intended here as the functional planning of the working space, was surely culturally influenced but would also have been the result of strategies for adapting to seasonal changes. The ergonomics of pottery production changed consistently within the context of urban production, wherein workshops were attached to public buildings, such as temples (Sassatelli 2011), or within residential *insulae* (Gaucci 2016). In the cities, kilns and other working areas were inside the buildings, making them suitable for all-year-round production, much less sensitive to seasonal changes and firmly embedded in urban economies, as in the Greek poleis and colonies.

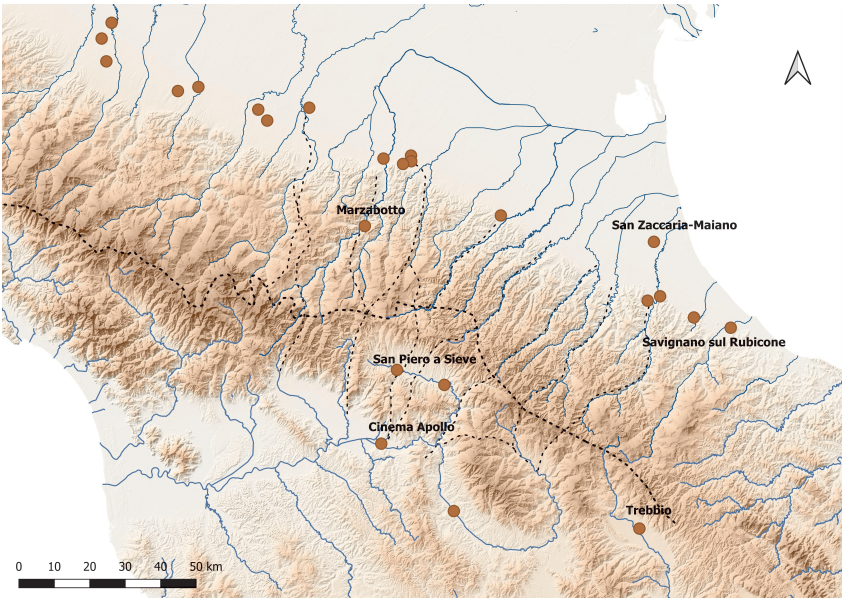

Fig. 1: Mapping of the pottery workshops with ergonomic features considered (R. Da Vela, with QGIS 3.8; DEM Copernicus EU-DEM v1.1; vectorial data: points see bibliography; viability reconstructed by the author; rivers: Copernicus EU).

Analysis of the Interplay of Seasonality and Ergonomics in Open-Air Pottery Workshops of the Iron Age Apennines

Open-air workshops were very common in the foothills and plains, which were rich in water and clay, and heavily settled. The extensively excavated sites, for example in Cesena Foro Annonario (Miari and Negrelli 2016), in San Piero a Sieve i Monti (Salvini 1994), in San Zaccaria-Maiano (Miari et al. 2008), in Savignano sul Rubicone (Miari 2003), in Trebbio San Sepolcro (Iaia and Moroni Lanfredini 2009), and on the site of the Cinema Apollo in Florence (Da Vela 2019), present several structures and functional areas. The kilns had a combustion chamber with a round plan (Fig. 2), excavated directly in the ground and covered by a provisory vault made of clay (type Cuomo di Caprio IB: Cuomo di Caprio 2007). Combustion and firing chambers were divided by a perforated floor or by a provisory floor made of clay blocks held by one or more small pillars. The temperature could be

controlled through a short rectangular kiln mouth, covered and closed by a stone during the cooling-down phase. During the production season, the vault of the kilns was destroyed after the cooling-down phase of every firing to access the fired products (mostly tiles, vases, and textile tools but also architectural terracottas), and then reconstructed.

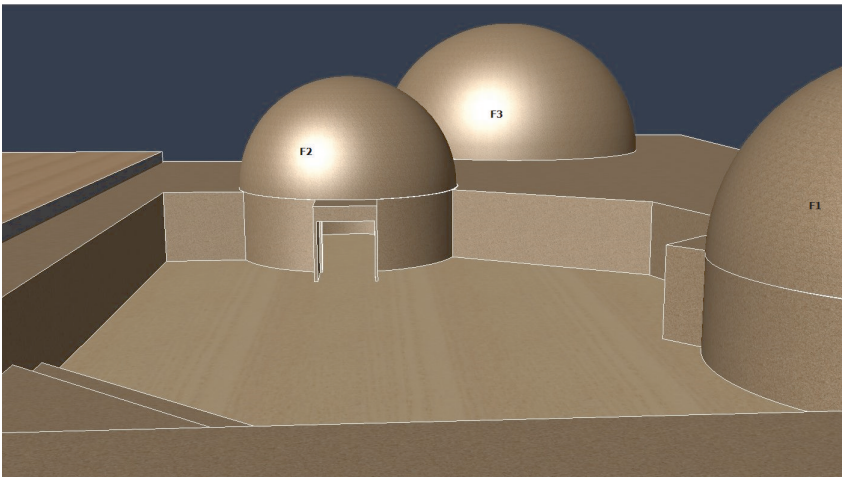

Fig. 2: Reconstruction of the kilns (indicated as F1, F2, F3) with shared working area of the pottery workshop of Cinema Apollo in Florence (R. Da Vela).

Only at the end of the season were the floors also removed, the firing chamber cleaned up and the pillars put to the side. At the beginning of the new season, the old, dismantled chambers were filled up and new chambers were reconstructed, cutting or partially reusing the old ones. These seasonal actions left their traces in the stratigraphy of some workshops, such as the Cinema Apollo, in the form of a little sandy lime accumulation between two seasonal reconstructions or in the form of cuts in the wall of the previous chambers done in the following season to construct the new ones (Da Vela 2019: 35), or in Cesena Foro Annonario (Gasparini and Rossi 2016: 43f.). Archaeological evidence also allows us some considerations based on the spatial relationships within the workshops. Some built areas of the workshops show a seasonal reuse, for example the roofed or half-roofed areas for working and drying out the products, which was necessary before firing. These areas were carefully chosen on the basis of local seasonal

insolation and ventilation. The kilns seem to be oriented on the easier and lower paths to and from this area, which was sometimes partially protected by roofs and palisades. The ergonomic integration of these areas with the kilns is probably one of the reasons for the seasonal continuity in rebuilding the kiln chambers. Other structures of the workshops, such as water channels, were more flexible in terms of the seasonal reoccupation, and probably linked to contingent factors such as precipitation and the level of the ground waters (Miari et al. 2008: 17–19).

Conclusions: Ergonomics and seasonality in the frame of the ResourceCultures

These open-air pottery workshops can be analyzed as a meshwork of resources and resource-related sociocultural dynamics in working environments, which is defined as a ResourceComplex in the analytical frame of the SFB 1070 RessourcenKulturen (Klocke-Daffa 2017: 254–256).

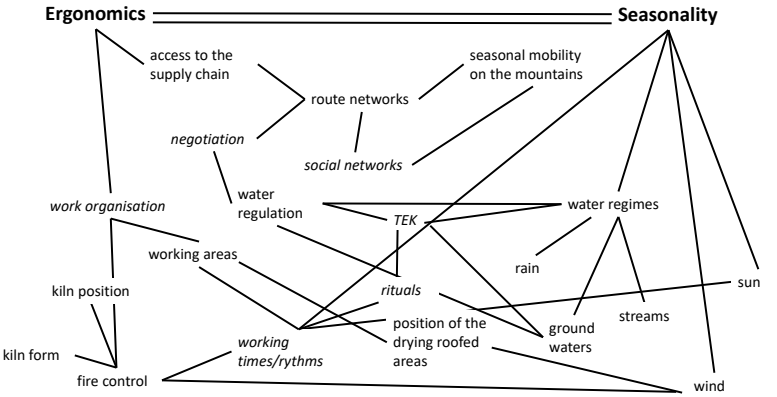

Fig. 3: ResourceComplex "Pottery Workshop." Ergonomics and seasonality are here framing factors of a meshwork of resource and resource-related sociocultural dynamics (R. Da Vela).

Ergonomics and seasonality can both be considered as intertwined framing factors of this meshwork (Fig. 3), because seasonal reconstruction of production structures and infrastructures was thus a form of negotiation

between social knowledge and traditions in relation to the better use of working space and the changing demands of the natural environment. The ergonomics of pottery workshops, intended as the management of spatial relationships (workshop design) and social interactions within the sociotechnical system, seems to have had a strong impact on the seasonal decision-making. These observations could lead to a hierarchized interpretation of the ergonomics with respect to seasonality, such as the proposal that seasonal rhythms would only have been a background factor. This anthropocentric interpretation should however be avoided, since some practices indicate that on the contrary, these ancient actors had a very precise perception of the significance of seasonality for their pottery production. The first practice was the careful tidying of the areas before the temporary abandonment at the end of the season. Several workshops, whose production was accidentally interrupted between two seasons, show a quite standardized social ritual, in which the firing chambers were cleaned, ashes were collected, and the working tools disposed of at the bottom of the kilns (Da Vela 2019). The second practice, which makes the perceived importance of seasonality evident, is the disposal rituals for the final abandonment of a production area, such as the deposition of miniature pots at the bottom of the kilns and the clay pits before filling them with earth, or the splitting of vases into two halves and their disposal in different pits (Miari et al. 2008: 32). Miniature pots and intentionally broken vases are also used in this period and region for other cult practices (Da Vela 2022: 290–292). Although only a few cases are attested, these rituals are similar on both sides of the Apennines and prove the existence of shared practices on a regional scale. The end of a seasonal rhythm was thus perceived as something not belonging to the normal sequence of the production and requiring special treatment. Ergonomics and seasonality can therefore be considered as equally important and intertwined factors, framing the negotiation around resources in pottery making, although the first one relates to the space and the second to the time of production. These observations could be developed further considering the impact of the urban turn during the middle of the 6thth century BCE upon both seasonality and ergonomics. The new indoor workshops show a loss in the impact of seasonality, eventually limited to the availability of fuel, which could also be stored inside, allowing an all-year-round production. The new embedding of pottery making in the urban economy was not just a simple adaptation of the production structures to the increased economic demand: This new conception of the workshop also denotes a strong cul-

tural revolution in the human-environmental interaction. The sacralization of pottery production now takes on the dimension of a domestic cult, with the presence of small shrines in the workshops. A clear example of that, in a contemporary context but a different cultural environment, is the Greek colony of Selinus (Bentz et al. 2013: 80f.), while bronze votive figurines in the workshops of Marzabotto have been interpreted as markers of a cross-craft production (Morpurgo et al. 2017: 114–116). Although urbanism was the trigger for new sociocultural dynamics in pottery production, this cultural turn did not involve all the known workshops of the region at the time. Some open-air workshops in the countryside maintained the traditional ergonomic seasonal patterns. The co-presence in the same region of such different cultures of pottery making is thus linked to the strength or weakness of the impact of seasonality in framing production processes and invites us to think of pottery workshops as dynamic RessourceAssemblages (Bartelheim et al. 2021: 15f.), in which the balance between ergonomics and seasonality does not change linearly but is rather negotiated based on the response of local societies to supra-local economic, political, and structural changes (Fig. 4).

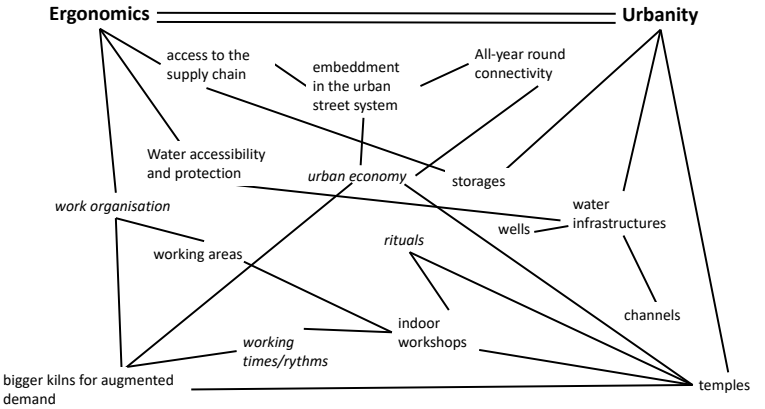

Fig. 4: ResourceAssemblage "Pottery Workshop." The urban growth triggers changes in the associations and relationships within the ResourceComplex (R. Da Vela).

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References Cited

Albero Santacreu, Daniel ~~Alberto~~
2014 Materiality, Techniques and Society in Pottery Production, Berlin: De Gruyter.

Bartelheim, Martin, Roland Hardenberg, and **Thomas Scholten**
2021 Ressourcen – RessourcenKomplexe – RessourcenGefüge – RessourcenKulturen. In: T. Schade, B. Schweizer, S. Teuber, R. Da Vela, W. Frauen, M. Karami, D. Kumar Ojha, K. Schmidt, R. Sieler, and M. S. Toplak (eds.), Exploring Resources. On Cultural, Spatial and Temporal Dimensions of Resources; pp. 9–21. Tübingen: TUP. [*RessourcenKulturen* 13]

Bentz, Martin, and **Christoph Reusser**
2008 Marzabotto. Planstadt der Etrusker. Mainz: von Zabern.

Bentz, Martin, Linda Adorno, Jon Albers, Jan Marius Müller and **Gabriel Zuchtriegel**
2013 Das Handwerkviertel von Selinunt. Die Töpferwerkstatt in der Insula S 16/17-E. Vorbericht zu den Kampagnen 2010-2012. *Mitteilungen des Deutschen Archäologischen Instituts Römische Abteilung* 119: 69–98.

Carusi, Cristina
2021 The Seasonality of Building Works in the Athenian Epigraphic Evidence. In: A. Lichtenberger and R. Raja (eds.), The Archaeology of Seasonality; pp. 73–84. Turnhout: Brepols.~~;~~

Ciampoltrini, Andrea
2009 La strada etrusca del Frizzone nella piana di Lucca e gli Etruschi dell'Auser. Signa: Masso delle Fate.

Cuomo di Caprio, Ninina
2007 La ceramica in archeologia II. Antiche tecniche di lavorazione e moderni metodi di indagine. Rome: ~~l'Erma di~~ Bretschneider. ~~: Rome~~.

Da Vela, Raffaella
2019 L'officina ceramica etrusca nel centro di Firenze. Strutture e pratiche di obliterazione. In : M. Denti and M. Villette (eds.), Archéologie des espaces artisanaux. Fouiller et comprendre les gestes de potier ; pp. 33–41. Lattes: ASM. [*Monographies d'Archéologie Méditerranéenne. Hors-série* 9]
2022 Le ceramiche miniaturistiche casentinesi e altovaltiberine di età arcaica e classica. Produzioni, scambi, pratiche sociali e contatti culturali. In: L. Cappuccini and A. Gaucci (eds.), Officine e artigianato ceramico nei siti dell'Appennino Tosco-Emiliano tra VII e IV secolo a.C.; pp. 281–299. Rome: Bretschneider. [*Biblioteca di Studi Etruschi* 66]

Donati, Luigi, **Giovanni Millemaci, Lucia Pagnini,** and **Gabriella Poggesi** (eds.)
2023 Gonfienti. L'insediamento etrusco e romano. Lo scavo. Florence: Edifir.

Feuser, Stefan
2021 Seasonality and the Sea. In: Lichtenberger and Raja; pp. 59–72.

Gasparini, Dalia, and **Tommaso Rossi**
2016 Periodo II. L'età del Ferro. In: M. Miari and C. Negrelli (eds.), Ritmi di transizione 2. Dal Garampo al Foro Annonario. Ricerche Archeologiche 2009–2013; pp. 43–46. Florence: Insegna del Giglio.

Gaucci, **Andrea**
2016 Nuovi studi sull'isolato "Mansuelli" di Marzabotto (Regio IV, Insula I). *Annali della Fondazione per il Museo Claudio Faina* 23: 243–299.

Hasaki, Heleni and **Martin Bentz** (eds.)
2020 Reconstructing Scales of Production in the Ancient Greek World. Producers, Processes, Products, People. Heidelberg: Propylaeum.[*Archaeology and Economy in the Ancient World* 8]

Heitz, Christian
2020 Pastorale Wirtschaft im Apenningebiet. Von historischer Zeit bis in die Vorgeschichte. In: M. Kasper, R. Rollinger, A. Rudigier, and K. Ruffinget (eds.), Wirtschaft in den Bergen. Von Bergleuten, Hirten, Bauern, Künstlern, Händlern und Unternehmern; pp. 251–267. Wien: Böhlau.

Jacobsen, Jan Kindberg, **Felice Larocca**, and **Joos Melander**
2021 The Seasonality of Timpone della Motta (Northern Calabria) during the Iron Age and the Archaic Period. In: A. Lichtenberger and M. Raja; pp. 143–164.

Klocke-Daffa, Sabine
2017 ResourceKomplexes, Networks, and Frames. The Sambrata in Madagascar. In: A. K. Scholz, M. Bartelheim, R. Hardenberg, and J. Staecker (eds.), ResourceCultures. Sociocultural Dynamics and the Use of Resources. Theories, Methods, Perspectives; pp. 253–270. Tübingen: TUP. [*RessourcenKulturen* 5]

Lichtenberger, Achim, and **Rubina Raja** (eds.)
2021 The Archaeology of Seasonality. Turnhout: Brepols. [*Studies in Classical Archaeology* 11]

Marchesini, Marco, and **Silvia Marvelli**
2002 Il paesaggio vegetale e le testimonianze dell'attività antropica. In: J. Ortalli and L. Pini (eds.), Lo scavo archeologico di via Foscolo-Frassinago a Bologna. Aspetti insediativi e cultura materiale; pp. 105–118. Parma: Soprintendenza per i beni archeologici dell'Emilia-Romagna. [*Quaderni di archeologia dell'Emilia-Romagna* 7].

Miari, Monica
2003 Un impianto produttivo per ceramica a Savignano sul Rubicone (FC). In: F. Martini and R. Nappini (eds.), Atti del XXXV Convegno di Studi dell'Istituto Italiano di Preistoria e Protostoria; pp. 499–514. Firenze: Istituto Italiano di Preistoria e Protostoria.

Miari, Monica, and **Claudio Negrelli** (eds.)
2016 Ritmi di transizione 2. Dal Garampo al Foro Annonario. Ricerche Archeologiche 2009–2013. Florence: Insegna del Giglio.

Miari, Monica, **Tommaso Rossi, Caterina Gentile,** and **Cristiano Mazzoni**
2008 San Zaccaria-Maiano (RA). Indagine archeologica su un complesso produttivo della seconda età del Ferro. In: Marilisa Ficara and Valentina Manzelli (eds.), Orme nei campi. Archeologia a sud di Ravenna; pp. 13 –36. Parma: Soprintendenza per i beni archeologici dell'Emilia-Romagna. [*Quaderni di archeologia dell'Emilia-Romagna* 20]

Iaia, Cristiano, and **Adriana Moroni Lanfredini** (eds.)
2009 L'età del Ferro a Sansepolcro. Attività produttive e ambiente nel sito del Trebbio, Perugia: Aboca.

Morpurgo, Giulia, Chiara Pizzirani, and **Chiara Mattioli**
2017 The Craft Settings in Kainua-Marzabotto. Places and Archaeological Issues. *Archeologia e Calcolatori* 28: 113–127.

Salvini, Monica
1994 L'intervento archeologico in loc. I Monti a San Piero a Sieve. Lo scavo. I materiali. In: R. De Marinis and M. Salvini (eds.), Archeologia in Alto Mugello, Mugello, Val di Sieve e il caso di S. Piero a Sieve; pp. 25–38. San Piero a Sieve: Il Torchio.

Santillo Frizell, Barbro
2004 Curing the Flock. The Use of Healing Waters in Roman Pastoral Economy (with an appendix by Kenneth F. Kitchell). In: Barbro Santillo Frizell (ed.), Pecus. Man and Animal in Antiquity; pp. 80–89. Rome: The Swedish Institute in Rome. [*Projects and Seminars* 1]

Sassatelli, Giuseppe
1990 La situazione in Etruria Padana. In: École Française de Rome (ed.), Crise et transformation des sociétés archaïques de l'Italie antique au Ve Siècle av. JC.; pp. 51–100. Rome: École Française de Rome [*Publications de l'École Française de Rome* 137]
2010 Le città dell'Etruria Padana. In: Stefano Bruni (ed.), Gli Etruschi delle città. Fonti, ricerche e scavi; pp. 204–215. Milano: Silvana.

2011 Città etrusca di Marzabotto: una fornace per il tempio di Tina. In: G. Bartoloni, G. Colonna, and D. F. Maras (eds.), Corollari. Scritti di antichità etrusche e italiche in omaggio all'opera di Giovanni Colonna; pp. 150–158. Pisa/Rome: Fabrizio Serra. [*Studia Erudita* 14]

Sandra Teuber and **Beat Schweizer**
2020 Resources Redefined. Resources and ResourceKomplexes. In: S. Teuber. A. K. Scholz, Th. Scholten, and M. Bartelheim (eds.), Waters. Conference Proceedings for "Waters as a Resoruce" of the SFB 1070 ResoruceCultures and DEGUWA (Deutsche Gesellschaft zur Förderung der Unterwasserarchäologie e.V.); pp. 9–17. Tübingen: TUP [*RessourcenKulturen* 11]

Trentacoste, Angela, Emma Lightfoot, Petrus Le Roux, et al.
2020 Heading for the Hills? A Multi-Isotope Study of Sheep Management in First Millennium BC Italy. *JASc Reports* 29: 102036.

Wilson, John R.
2000 Fundamentals of Ergonomics in Theory and Practice. *Applied Ergonomics* 31: 557–567.

Zamboni, Lorenzo
2012 Testimonianze arcaiche nell'Emilia occidentale. Una cultura di frontiera alla luce delle nuove indagini. In: M. P. Bologna and M. Ornaghi (eds.), Novissima Studia: dieci anni di antichistica milanese; pp. 1–29. Milano: Cisalpino.
2016 Spina, città liquida. Gli scavi 1977-1981 nell'abitato e i materiali tardo arcaici e classici. Rahden: Verlag Marie Leidorf. [*Züricher Archäologische Forschungen* 3]

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Seasonality in South West Arabia's Late Pre-Islamic Era:

Elements and Criteria for Reassessing the Evidence

Andre Gingrich

To every thing there is a season, and a time to every purpose under the heaven:
A time to be born, and a time to die; a time to plant, a time to reap that which is planted;
A time to kill, and a time to heal; a time to break down, and a time to build up;
A time to weep, and a time to laugh; a time to mourn, and a time to dance …
Ecclesiastes 3:1–4 (The Bible, King James Version)

Abstract. – Seasonality has not been entirely missing from research into South West Arabia's pre-Islamic history; it has long been considered as part of the study of flood irrigation by means of great dams and their maintenance. But the overall relevance of seasonality for the entirety of a complex and multifaceted society – beyond dams and large-scale agriculture – has not yet been sufficiently considered. To that wider purpose, the present text offers a number of methodological and systematic arguments as a basis for improving and expanding the scope of future research.[1] [*South West Arabia, pre-Islamic history, agriculture, seasonal cycles*]

Introduction

In semi-arid and semi-tropical zones, seasonality was (and remains) relevant primarily in terms of environmental cycles between annual dry and rainy seasons, and their repercussions within wider realms of regional

1 For their helpful suggestions and critical remarks, I am grateful to this journal's anonymous reviewers, its editor-in-chief Darius J. Piwowarczyk, to Norbert Nebes (Jena) and Joan Kathryn O'Donnell (Cambridge, Massachusetts), and to my colleagues at the Austrian Academy of Sciences (ÖAW), in particular the co-editors of this section, Sabina Cveček (Field Museum) and Barbara Horejs of the Austrian Archaeological Institute (ÖAI), and my colleagues in South Arabian Studies at the ÖAW's Institute for Social Anthropology (ISA), Marieke Brandt and Johann Heiss. This text is an elaboration and revision of my honorary lecture "Wandel und Wiederkehr: Ethnographische Beobachtungen aus zwei Jahrzehnten im Bergland Südwestarabiens," which I presented on October 14, 2005, at the "Haus Völker und Kulturen" in Sankt Augustin/Bonn on the occasion of the *Anthropos* journal's centenary.

societies. Because the absence or presence of precipitation defines most other dependent variables of the environment, long-term climate history is crucial for understanding the seasonal aspects of environmental history.

Historicity of Indian Ocean Monsoons

By current scholarly reckoning, the era of South West Arabia's Ancient South Arabian civilizations lasted from their emergence by the early first millennium BCE to their collapse around the mid-sixth century CE (Robin 1991; 1997). The overall time span of these complex pre-Islamic settings in the region has to be seen in correlation with South West Arabia's location at the northwestern fringe of the Indian Ocean and along the southern parts of the Red Sea and the impact of monsoon winds and rains. It was, after all, this particular correlation, together with a privileged position in long-distance trading networks, that underlay the legendary reputation of Ancient South West Arabia's civilizations in Mediterranean antiquity as "Arabia Felix." Ancient South West Arabia's reputation for affluence and fertility was also reflected in the Old Testament's references to King Solomon's encounters with the Queen of Sheba (Saba) and in the New Testament's tale of the Three Kings or Magi, with their gifts of gold, frankincense, and myrrh.

Based on the affluence and fertility of South West Arabia that was widely recognized in European and Asian antiquity, it would seem logical to assume that an underlying and stable correlation with regular rainfall prevailed throughout ancient times. This assumption, however, can no longer be supported. Today, we know that any regularity of the monsoon winds and rains in the Indian Ocean region consolidated gradually and became a constant only in relatively recent times. As climate historians and historians of the Indian Ocean world in particular have pointed out (Campbell 2019: 8–20; Knoll and Campbell 2020: 2), such climatic consolidation processes did not reach beyond certain broad threshold values until as late as about 500 BCE.

From a historical perspective, the fairly recent establishment of consolidated threshold values in climate history for this maritime zone was causal for the emergence of a wide cross-continental and interregional economy across major regions of the Indian Ocean rim. One may thus conclude that any consolidated regularity of monsoon winds and rains had emerged

several centuries prior to that; that is, during the first half of the first millennium BCE. In terms of the climate history of Ancient South Arabia, this allows us to distinguish an earlier period (period 1), before 500 BCE, and a subsequent period (period 2). Period 1 was characterized by human encounters with pre-monsoon precipitation cycles that were irregular, rather unpredictable, and involved higher risks for the annual reproduction of local subsistence patterns. Period 2, by contrast, was characterized by human encounters with more stabilized monsoon precipitation cycles that became fairly regular and even predictable to an extent – although this period also included serious droughts and other climatic risks that could be more or less contained for a while, until new challenges such as even longer, successive periods of drought emerged (Fleitmann et al. 2022).[2]

We are now able to identify a relevant time frame for interregional monsoon seasonalities in South West Arabia's pre-Islamic era that lasted from about 500 BCE until the fifth century CE. I will focus on that time period – referred to earlier as period 2 – in what follows. The discussion will address Ancient South West Arabia's main civilizations (Gingrich 2018) in a cross-cutting perspective,[3] without delving into important regional, temporal, cultural, and politico-military variations between them.

Seasonality in Main Subsistence-Related Clusters

Ancient South West Arabia's main civilizations were complex polities with dominant scriptural, polytheistic cultures employing several interrelated Semitic but non-Arabic idioms (Avanzini 2016; Maraqten 2014; Robin 2015). They relied on mixed regional economies and on their interregional positions within long-distance trading networks that were both maritime and overland (Nebes 2023). All of these mixed regional economies had agriculture at their core, represented by two interrelated but distinct agricultural settings. One of these was small-scale agriculture pursued by individual households; it relied on small-scale irrigation by rainfed-tilling

2 In addition to the supportive academic environment acknowledged in note 1, the present text also was inspired by, and represents a contribution to, "Appraising Risks" (https://www.appraisingrisk.com/). This is a long-term international cooperation project by the ÖAW's ISA with the Indian Ocean World Centre at McGill University, Montreal (Canada).

3 The present discussion does not consider the Ethio-Sabean polities that flourished in East Africa from the early to the mid-first millennium BCE (Nebes 2023: 349–355).

and slope runoff, supplemented by other means of flood control (cisterns, dams), as well as by springs and wells. This setting was ubiquitous throughout the entire region, wherever precipitation allowed for it. The other setting was large-scale irrigation pursued by representatives of central authorities by means of major dams for controlling seasonal floods. A few major dams have been identified in some of the western mountains and adjoining plateaus, but the majority of large dams were situated along the eastern fringes of the plateaus and along major drainages down to the steppe lowlands of the interior.

Three smaller subsistence-related clusters, which depended on suitable geographic and environmental conditions, interacted with these two main agricultural settings: foragers (hunters and gatherers), coastal villagers (fishers), and pastoralists.

Hunting and Gathering

During the millennium under discussion, foraging activities in South West Arabia had already been marginalized into a few remaining pockets of the uncultivated peripheries, where they continued not only to flourish but also to maintain some prestige within the agricultural zones (Maraqten 2015). From surviving petroglyphs (Anati 1968; Gingrich 2017), it seems that foraging as a primary subsistence activity had its main areas in the gorges and steep valleys of the western mountains and in the less accessible parts of the eastern slopes; it may also have been practiced in some of the remote hinterlands of coastal settlements and oases in the western parts of the interior. Comparative ethnography indicates that these foragers were members of semi-mobile communities that participated in mixed gathering and hunting activities, combined with small-scale crafts production and engagement in occasional trading of both prestige objects and everyday products of consumption.

The fusion-fission patterns typical for seasonality among foraging societies would result in "horizontal" patterns among those in South West Arabia who lived in remote hinterlands but might move closer to oases and coastal settlements in times of environmental stress. In the more relevant cases of foragers in the western mountains and eastern slope zones, however, this movement would combine with prevailing patterns of "vertical" seasonality. Mountain goat and ibex, for instance, would be moving upward in dry seasons, and foraging parties would have to follow them. On a

seasonal basis, then, foragers' products would more or less regularly enter local markets; from there they could move into the channels of long-distance trade. As indicated, these products included prestige and luxury items such as wild honey, wild flowers, possibly gemstones (Seland 2017), ibex trophies, and – last but not least – frankincense and myrrh (Groom 1981; Müller 1978).

If we apply comparative ethnographic insights about foragers, we can assume that many of the gathering and collecting tasks were the focus of women's (and their children's) activities, and that hunting was for the most part the realm of men. The success of skilled collectors and hunters would have resulted in personalized fame and prestige and may in turn have stimulated the emergence of early "big man" and "big woman" constellations among the foraging peripheries, their status facilitated through their interactions with local markets and long-distance trade.

Fishing and Port Communities

Climatic seasonality's impact on fishing was minimal. Maritime excursions were somewhat less frequent and less productive during times of unpredictably stormy or wet weather, but fishing itself was not a seasonal occupation in the region. Related activities, however—some of them market-oriented—had their more obvious seasonal highs and lows, impacting such activities as building and repairing boats, nets, ropes, and sails; drying salt and fish; and procuring coral stone or diving for pearls. Settled fishing communities could retreat into largely self-supporting entities if necessary, but they were oriented to the outside if possible. They were usually located near river mouths or deltas close to the coastline in order to make use of their greater environmental diversity, which facilitated economic side-activities such as gardening, gathering, and occasional hunting (al-Hinai 2020). Not all fishing settlements were ports, but all ports accommodated fishing communities. A few large ports were controlled by distant central polities, not unlike the concepts outlined by Karl Polanyi (Polanyi et al. 1957); their positions depended on suitable access for incoming vessels. This was facilitated in some locations, such as Aden, by rock formations but was challenged elsewhere by silting, especially along the eastern Red Sea coasts.

Most major and many minor ports along the coasts of Ancient South West Arabia's mainland saw regular departures of local and regional commercial ships and arrivals of incoming vessels from the wider region and

beyond. Market sites in the vicinity of ports must have been a convenience at these intersections between overland and maritime trade. The occurrence and frequency of this particular (non-fishing) type of maritime commerce depended entirely on the monsoon winds and came to a standstill outside their seasons. Skilled local and regional pilots, acting as semi-specialists, were indispensable for the maintenance of long-distance maritime trade since incoming ships from farther away required local pilots for guidance along the coast. It is not unlikely that the best pilots among these sought-after experts were acknowledged as the maritime "big men" and "big women" of the coastal areas.

Pastoralism

It has been known since the mid-twentieth century (Dostal 1967) that in South Arabia's early history, Bedouins – as specialized camel herders – represented but a small minority among all fully specialized pastoralists, most of whom raised smaller animals. The total numbers of pastoralists in the region amounted to a small portion of the overall population, yet they occupied fairly vast areas. In South West Arabia, the main areas of pastoralism included, to a lesser extent, some steppe sections of the coastal plains and hinterlands and, to a much larger extent, the steppe areas of the interior transition zones to the Najd and the Empty Quarter desert.

Unlike foraging and fishing communities, pastoralists cannot survive across multiple generations solely on the basis of self-sufficiency. By necessity, they had to interact with other communities in order to procure agricultural and crafts products in exchange for their animals and related goods; trading relations were also occasionally combined with excursions into zones of foraging or into the outer territories of more settled communities. Most of these interactions were commercial and peaceful in nature. But because of their greater mobility and political autonomy, Bedouin groups could sometimes pose a military threat to oasis dwellers; they were also sometimes recruited by other political entities in order to pose such a threat. It seems these military options were more readily available in Bedouin habitats in the far interior than in the coastal areas. Like hunter-gatherers, pastoralists and their herds in the interior regions had their own seasonal fusion-and-fission patterns, occurring largely on a horizontal basis characterized by dispersal movements in the dry seasons. It appears that Bedouin excursions and invasions from Inner Arabia became more

relevant during the late phases of Ancient South West Arabia's history; if coming from the north and northeast, these movements contributed to the growing pre-Islamic dissemination of the Arabic language (Brunner 2005: 143; Robin 1997: 181).

The three smaller subsistence-related clusters discussed to this point faced hardly any structural or systemic necessity for regular interactions with one another. But as I have tried to show, the respective representatives of each of the groups did regularly interact with agriculturalists. Such interactions could include shorter or longer periods of withdrawal, but during times of close engagement, semi-specialized messengers, mediators, or traders may have been involved as brokers for such interactions. As already indicated, the agriculturalists with whom the hunter-gatherers, fishing folk, and pastoralists interacted represented two interrelated but distinct agricultural settings.

Small-Scale Agriculture

Archaeological evidence is still scanty about the geographical extent and time frame of small-scale agriculture in South West Arabia during the era in question. Geographers (Kopp 1981) and archaeologists (Hehmeyer 2019) alike argue convincingly that it may have covered the same basic territories as today, albeit involving lower population densities (Gerlach 2010). Small-scale agriculture, then, would have covered the main plateaus, valleys, and mountain zones of the region. It would have historically preceded large-scale agriculture elsewhere in the region but also coexisted with it, at times in intersecting subregions.

Small-scale agriculture depended to a great extent on direct precipitation – as well as on irrigation techniques derived from rainfall, including slope runoff for terraced fields, channels and small dams for controlling and regulating floods, and cisterns for storing overflow. The entire region was heavily dependent on the monsoon rains, since only a few subregions could also rely on wells and springs. Agriculture on terraced and plain fields, together with gardening and domestic or specialized crafts, was at the core of small-scale agriculture in the mountains and elevated plateaus, supplemented by keeping small livestock. The main agricultural tool for small-scale agriculture was neither the plow nor the hoe but the ard. The foreseeable arrival of the monsoon rains defined in advance the main preparatory work

for and in the fields, and the subsequent periods of growth, harvesting, and storage.

The consolidation of regular monsoons in South West Arabia's climate history must have encouraged the more accurate observation and prediction of seasons by means of stellar folk calendars. In turn, the need to regularly plan and improve agricultural techniques, if only to keep floods under control, eventually permitted small-scale farmers to accrue regular surpluses for supplying one another and the local markets, and contributed to the development of an ensuing prestige economy. This setting was also subject, in the long run, to an increase in population pressures.

Centers of Large-Scale Irrigation

Ancient South West Arabia's great dams have been the almost exclusive focus of archaeologists for long periods of research history on the region. One of the best insights into these findings was published recently by Ingrid Hehmeyer (2015; 2019). Her pioneering work reveals how the great dams were embedded in regional (and wider) economic and social systems; in what ways they were cornerstones for these civilizations; and how their maintenance implied limitations that eventually contributed to imperial demise and collapse.

The great dams were positioned to capture the seasonal floods that descended from the plateaus and highlands to the fringes of the steppe and the lowlands. Technically, these dams combined aggrandized principles of dam regulation and cisterns known from small-scale agriculture, while gradually incorporating technical and social improvements based on accumulated experience and cooperation. Locally the dams allowed the expansion of existing oases or the creation of new artificial oases through irrigation. In addition to providing water for human and animal consumption, the dams enabled demographic concentrations and the emergence of early cities as small garden or walled settlements (Fletcher 2012). These proto-urban centers were sites of worship and pilgrimage but also important outlets for local and regional commerce and marketing. Equally important, they became crucial stopovers for Ancient South West Arabia's part in overland long-distance trade. Some of them, such as Qarnawu or Mārib, eventually became the religious, scriptural, and political centers of Ancient South West Arabia's various empires – the Sabean polity, in particular, whose

fluctuating hegemonies characterized much of Ancient South West Arabia's history[4] between the early and the late first millennium BCE, when the Ḥimyar began to rise.

But despite regular efforts of repair, cleaning, and innovation – as Brunner (2005), Brunner and Schmidt (2002), Hehmeyer (2015), and others have made abundantly clear – the dams' basic construction entailed unavoidable limitations to their maintenance: silting and salinity. Around 275 CE, the Ḥimyar polity established its power center in Zafār in the southern highlands, initiating Ancient South Arabia's late period with its emergence of Ḥimyar hegemony.[5] This development went hand in hand with an increasing shift toward small-scale agricultural production in the highlands, an accelerated downgrading of large-scale irrigation by dams in the east, and an ensuing political marginalization of the Mārib population of Saba Kahlan. By the seventh century CE, the Qur'an would famously reference the historic collapse of the great dam of Mārib.

For the other four subsistence and agricultural clusters in the region, the centers that had developed as a result of large-scale irrigation served to at least some extent as important partners in socio-economic as well as cultural and religious interactions. Yet the centers' political and military control over the other clusters, if it existed at all, remained at best fragile, limited, and peripheral.

Times for Rituals, Trade, and War

With the emergence of consolidated monsoons, greater seasonal regularity and predictability promoted more detailed observation of temporal and directional indicators, including corresponding stellar constellations. Routine observation forms, including verbal and visual aides-mémoire such as folk inventories of memorized almanacs and written fragments, were widespread. Most of the names of stars observed in the region today have pre-Islamic roots, and some of the related calendars operate without any

4 From the times of the Sabean *mukarribs* no inscriptions about dam ruptures are known. This might indicate that during these times dam repairs still could be carried out as routine operations (Nebes, personal communication, 26 February 2023).

5 In the first half of the sixth century CE, the last leader of Ḥimyar (commonly known as Ḏū Nuwās) famously converted to Judaism. This enhancement of monotheist influence also implied the important aspect of regional consolidation against increasing Christian (especially Ethiopian) and Persian interests in the region (Avanzini 2016).

need for scriptural tools (Gingrich 1994). Many of the symbolic associations with rains, fertility, and stellar objects also entered Ancient South West Arabia's belief systems. By tacit understanding as well as by explicit knowledge, seasonality could be learned, experienced, and passed on.

As in most other ancient West Asian and Middle Eastern agriculture-centered societies, the primary rituals that celebrate the hope of and potential for productive lives (Nebes 2022) took place just before or after a year's agricultural "bottleneck" phases and related activities. Symbolic analogies between human and agricultural fertility were widespread in the Ancient Middle East. Both male circumcision rituals and weddings must have been staged during appropriate star periods while waiting for either first rains or harvests. In times of delayed first rains and long droughts, other feasts would be postponed in order to prioritize rain-invoking rituals, which may have included ritual hunting—especially for the ibex, as an offering to the gods in the hope of rain. Major collective rituals and ceremonies were temporally situated outside of but close to the expected beginnings or endings of main agricultural periods.

Trading, by contrast, depended not on the stars or the rains but on the availability of products in transportable condition. Dried fish, honey, and frankincense, for example, were not available year-round: they could be transported only long after harvests, when the products had matured into the specific condition required for entering regional markets and/or long-distance trade. The peaks of long-distance overland trading were the core dry seasons, while the peaks of maritime trading were defined by the primary monsoon winds and occurred at other times during the solar year.

Feuding and warfare were sometimes engaged in as a violent alternative to trade as means of access to objects of wealth or prestige; they could also serve to enhance claims of prestige, influence, and power. On rare occasions, warfare involved the crossing of maritime distances, as did the Christian Ethiopian invasions into South West Arabia in the sixth century CE (Gingrich et al. 2021; Nebes 2010). The initiation and logistics of these spectacular maritime military expeditions were framed, of course, by appropriate seasonal winds. Less spectacular and much more frequent were instances of feuding and small-scale warfare with only terrestrial challenges of distance (Nebes 2005). These were more easily addressed, in terms of both logistics and mobilization, outside the main rainy seasons and their related agricultural activities; this seasonality of feuding and warfare also served to keep some of the military equipment dry. On the other hand, the pragmatism of these preferred seasons for violence lacked the element

of unpredictability and of surprise. In addition, some of the more mobile pastoral forces in the coastal areas and low-lying interior steppe areas, as well as from foraging communities in the rough mountain valleys, were not dependent on agricultural and commercial seasons and could exploit the fact that others were preoccupied with them.

Conclusions

Recent advances in understanding the climate history of the Indian Ocean world have allowed a new perspective on the relatively recent *emergence* of the monsoon seasons, their loose correlation with the rise of Ancient South West Arabia's civilizations, and some of the background to their *demise* more than a millennium later. The specificities of patterns of seasonality in Ancient South West Arabia unfolded within this updated time frame from the early first millennium BCE to the early sixth century CE.

a) The *emergence* of fairly recurrent patterns of monsoon-related seasonality occurred in line with the eventual consolidation of regular monsoon winds before 500 BCE. Yet that transformation in regional climate history promoted the predictable and reliable reproduction of these cycles of seasonality, with ensuing new levels of productivity and affluence. As a result, Ancient South and South West Arabia became some of the most fertile regions along the southern Red Sea coast and on the northwest Indian Ocean rim. This agricultural fertility and environmental abundance not only gave rise to some internal competition, as reflected in rivalries between ancient Yemen's predominant empires, but also increased external interest in this rare constellation of "green islands" surrounded by oceans of sand and sea.

b) The decay and *demise* of the Ancient South West Arabian empires had manifold underlying causal factors. These included such elements as military and political groupings related to South West Arabia's broader interregional position—between Byzantium and the Sassanid Empire in the north and northeast, East Africa to the southwest, and the South Asian subcontinent to the east – and ensuing military pressures that also caused interruptions of, or decline in, long-distance trading activities. But the focus of the present discussion is on rainfall, not politics – on precipitation as a crucial variable in regional seasonality. Assessed by this independent factor, we can identify a few important and directly dependent variables that contributed in their own right to the trajectory of decay and demise.

Two major variables inherent to the region and the era, confirmed by the present analysis, were environment-related factors crucial for large-scale irrigation through great dams, and demographic pressures related to small-scale agriculture.

Increased silting made it more and more difficult to repair and maintain the big dam projects along the rims of the eastern steppe of South West Arabia, including the great dam of Mārib. The disastrous collapse of that dam, mentioned in the Qur'an, was not a single event but part of a wider continuum of deteriorating conditions. Big dams were the infrastructural basis for Ancient South Arabia's centers of power during the first millennium BCE. Before the final decay processes of the great dams fully set in, the Ḥimyar, as the last centralized powers in Ancient South Arabia, sought to unify and integrate the region politically in order to solidify their foundations of power. Stronger integration may have increased external contacts and reduced some internal diversity.

But when the great dams' final decay processes reached their climax, most local resident populations lost their livelihoods. This resulted in demographic changes of wide regional and interregional relevance, as populations previously dependent on large-scale irrigation systems moved up into the highlands and plateaus. The eastern transition zones to the steppe were transformed from civilization centers into agropastoral peripheries, and the carrying capacities in the highland and plateau areas eventually approached their limits. Beginning in the seventh century, demographic pressures in the South West Arabian highlands would become a main factor in Arabo-Islamic expansion movements from the peninsula's south to the north, and beyond.

c) Within these historical time frames, a set of recurrent patterns of seasonalities has been identified: There were seasonalities "within" the three minor subsistence-related clusters; seasonalities "between" each of them and the two main agricultural clusters; and seasonalities "inside" the agricultural clusters.

> These patterns amounted to *staggered seasonalities*: monsoon-based and recurrent (cyclical) each solar year yet existing within the (linear) time frame between emergence and demise—that is, *within the limits of a longue durée*.
>
> This particular set of coexisting, staggered seasonalities included options for the noncentralized subsistence clusters, each of which faced alternatives between two extreme poles of agency: Depending on their

circumstances, they could either *close up* into more autonomous conditions, withdrawing from some external influences; or they could *open up* and engage with major external influences to the extent needed. The pursuit of these alternatives was not based on voluntary decisions alone (contrary to some suggestions in Graeber and Wengrow 2021) but developed in interaction with environmental and political constraints. If, for instance, the "fission" seasons were too dry and dangerous, foragers and pastoralists might have to embrace external relations as an additional resource. Similarly, small-scale agriculturalists and fishing communities might have to withdraw from some of their external relations whenever a reduction of monsoon rains forced them into prioritizing subsistence activities. At times, withdrawal into semi-autonomy from one central polity offered a choice of alternative alliance with another one.

The only cluster that was unable to choose in such a flexible way between seasonal alternatives was the dominant setting of large-scale irrigation. In their dependence on the monsoon rains, the system's relatively few population centers were less elastic than were its multifaceted peripheries. Overall, the complex, dynamic, and internally heterogenous imperial systems, founded as they were on large-scale irrigation projects, had built-in cyclical movements of *waxing and waning*, of contraction and disintegration versus expansion and integration, with regard not only to the minor and major population clusters at the semi-autonomous periphery but also vis-à-vis rival empires within the region and beyond.

References Cited

Al-Hinai, Nasser
2020 The Population of Southeastern Arabia/Oman, 300 BCE–700 CE. Historical Anthropology of Tribal and Other Groups in the Region. [PhD dissertation, University of Vienna]

Anati, Emmanuel
1968 Rock-art in Central Arabia. (Expédition Philby–Ryckmans–Lippens en Arabie, 1re partie, tome 3). Vols. 1 and 2. Louvain: Institut Orientaliste.

Avanzini, Alessandra
2016 By Land and By Sea. A History of South Arabia before Islam Recounted from Inscriptions. *Arabia Antica: Philological Studies 10.*

Brunner, Ueli
2005 Geschichte. In: Horst Kopp (ed.), Länderkunde Jemen; pp. 137–158. Wiesbaden: Reichert Verlag.

Brunner, Ueli, and **Jürgen Schmidt** (eds.)
2002 Archäologische Berichte aus dem Yemen. Mainz: Philipp von Zabern. [*Deutsches Archäologisches Institut San'a* 9]

Campbell, Gwyn
2019 Africa and the Indian Ocean World from Early Times to 1900. Cambridge: Cambridge University Press.

Dostal, Walter
1967 Die Beduinen in Südarabien. Eine ethnologische Studie zur Entwicklung der Kamelhirtenkultur in Arabien. Horn: Berger. [*Wiener Beiträge zur Kulturgeschichte und Linguistik* 16]

Fleitmann, Dominik, et al.
2022 Droughts and Societal Change. The Environmental Context for the Emergence of Islam in Late Antique Arabia. *Science* 376: 1317–1321.

Fletcher, Roland
2012 Low-density, Agrarian-based Urbanism. Scale, Power, and Ecology. In: Michael E. Smith (ed.), The Comparative Archaeology of Complex Societies; pp. 285–320. New York: Cambridge University Press.

Gerlach, Iris
2010 Bewässerungstechniken in Südarabien. Das Reich von Saba (Jemen). In: Mamoun Fansa and K. Aydin (eds.), Wasserwelten. Badekultur und Technik; pp. 51–61. Mainz: Zabern.

Gingrich, Andre
1994 Südwestarabische Sternenkalender. Eine ethnologische Studie zu Struktur, Kontext und regionalem Vergleich des tribalen Agrarkalenders der Munebbih im Jemen. Vienna: WUV Universitätsverlag. [*Wiener Beiträge zur Ethnologie und Anthropologie* 7]
2017 Rock Art from West and South West Arabia. Socio-cultural Anthropology's Insights for the Region's Eastern Transition Zones. *Mediterranean Archaeology and Archaeometry* 17/4: 61–73. [Rock Art Special Issue]
2018 The Use and Abuse of Civilization. An Assessment from Historical Anthropology for South Arabia's History. In: Johann P. Arnason and Chris Hann (eds.), Anthropology and Civilizational Analysis. Eurasian Explorations, SUNY Series, Pangaea II: Global/Local Studies; pp. 75–97. Albany: SUNY Press.

Gingrich, Andre, Johann Heiss, and **Odile Kommer**
2021 Between Diversity and Hegemony. Transformations of Kinship and Gender Relations in Upper Yemen, 7th–13th Century CE. *History and Anthropology* 32/2: 188–210.

Graeber, David, and **David Wengrow**
2021 The Dawn of Everything. A New History of Humanity. New York: Farrar, Strauss and Giroux.

Groom, Nigel
1981 Frankincense and Myrrh. A Study of the Arabian Incense Trade. London and Beirut: Longman Group Ltd and Librairie du Liban.

Hehmeyer, Ingrid
2015 Water Engineering and Management Practices in South Arabia. Aspects of Continuity and Change from Ancient to Medieval and Modern Times. In: A. Gingrich and S. Haas (eds.), South Arabia across History. Essays to the Memory of Walter Dostal; pp. 43–54. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
2019 A History of Water Engineering and Management in Yemen: Material Remains and Textual Foundations. Handbook of Oriental Studies, Section 1: The Near and Middle East, 129. Leiden: Brill.

Knoll, Eva-Maria, and **Gwyn Campbell**
2020 Introduction. In: Gwyn Campbell and Eva-Maria Knoll (eds.), Disease Dispersion and Impact in the Indian Ocean World; pp. 1–23. Cham, Switzerland: Palgrave Macmillan. [*Palgrave Series in Indian Ocean World Studies (IOWS)*].

Kopp, Horst
1981 Agrargeographie der Arabischen Republik Jemen. Landnutzung und agrarsoziale Verhältnisse in einem islamisch-orientalischen Entwicklungsland mit alter bäuerlicher Kultur. Erlangen: Fränkische Geographische Gesellschaft.

Maraqten, Mohammed
2014 Altsüdarabische Texte auf Holzstäbchen. Epigraphische und kulturhistorische Untersuchungen. Beirut: Orient-Institut. [*Beiruter Texte und Studien* 103]
2015 Hunting in Pre-Islamic Arabia in Light of the Epigraphic Evidence. *Arabian Archaeology and Epigraphy* 26: 208–234.

Müller, Walter W.
1978 Weihrauch. Ein arabisches Produkt und seine Bedeutung in der Antike. In: G. Wissowa (ed.), Pauly-Wissowas Realencyclopädie der klassischen Altertumswissenschaft, Suppl. Vol. 15; pp. 701–777. München: Alfred Druckenmüller Verlag.

Nebes, Norbert
2005 Sabäische Texte. In: Bernd Janowski and Gernot Wilhelm (eds.), Staatsverträge, Herrscherinschriften und andere Dokumente zur politischen Geschichte; pp. 331–367. Gütersloh: Gütersloher Verlagshaus. [*Texte aus der Umwelt des Alten Testaments (N.F.)* 2]
2010 The Martyrs of Najrān and the End of Ḥimyar. On the Political History of South Arabia in the Early Sixth Century. In: Angelika Neuwirth, N. Sinai, and M. Marx (eds.), The Qur'an in Context. Historical and Literary Investigations in the Qur'anic Milieu; pp. 27–59. Leiden: Brill.
2022 Das Heiligtum in Südarabien als Ort der schriftlichen Dokumentation. In: Iris Gerlach, G. Lindström, and K. Sporn (eds.), Heiligtümer. Kulttopographie und Kommunikationsformen im sakralen Kontext; pp. 17–37. Wiesbaden: Harrassowitz.
2023 Early Saba and Its Neighbors. In: Karen Radner, N. Moeller, and D. T. Potts (eds.), The Oxford History of the Ancient Near East; pp. 299–375. Oxford: Oxford University Press.

Polanyi, Karl, Conrad M. Arensberg, and **Harry W. Pearson** (eds.)
1957 Trade and Market in the Early Empires. Economies in History and Theory. Glencoe: Free Press.

Robin, Christian
1991 L'Arabie antique de Karib'īl à Mahomet. *Revue du Monde Musulman et de la Méditerranée* 61: 71–88.
1997 Yémen, au pays de la Reine de Saba'. Exhibition catalogue. Paris: Institut du Monde Arabe.
2015 Before Ḥimyar: Epigraphic Evidence for the Kingdoms of South Arabia. In: Greg Fisher (ed.), Arabs and Empires before Islam; pp. 90–126. Oxford: Oxford University Press.

Seland, Eivind H.
2017 Gemstones and Mineral Products in the Red Sea/Indian Ocean Trade of the First Millennium. In: Alexandra Hilgner, S. Greiff, and D. Quast (eds.), Gemstones in the First Millennium AD. Mines, Trade, Workshops and Symbolism; pp. 45–58: Mainz: Verlag des RGZM: [*Römisch Germanisches Zentralmuseum–Tagungen* 30]

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Seasons and Seasonality in the (Alaskan) Arctic:

Human and More-than-human Cycles of Engagement

Peter Schweitzer

Abstract. – While one could argue that life is always and everywhere seasonal and characterized by rhythms that change over the course of a year, the Arctic provides a very vivid illustration of that statement. Unlike tropical and moderate zones of the globe, the High North (like uninhabited Antarctica) oscillates between polar day and night, thereby providing extreme living conditions for plants, animals and humans. Climate change research has added to that narrative by documenting significant shifts in Arctic ecosystem seasonality in recent years. The question remains, however, whether human individuals and societies mirror these shifts or not. In other words, what is the relationship between social and environmental seasonal cycles in the Arctic? The article will provide insights from the author's fieldwork of the last 30+ years and from a literature review (with a focus on Alaska) going back to Marcel Mauss' "Seasonal Variations of the Eskimo." [*Seasonality, Arctic, Alaska, Marcel Mauss, ethnography*]

Introduction

The spring 1992 was the first time I ever experienced the wonders of Arctic seasonal changes. After a long and dark winter in Fairbanks (Alaska, USA), the increasing length of day became noticeable in February/March, while the night temperatures remained low. Most dramatic in that respect was the month of May: while the first half of the month came with the last significant amount of snowfall of the season, the last week of the month brought high temperatures of 20 degrees Celsius and more every day. At that point, the length of day had increased to more than 20 hours, while early March had only about 10 hours of sunlight per day to offer.

Having grown up in a mid-latitude location in Austria, the sensation of radical and abrupt seasonal changes in Fairbanks became less surprising as I went on to live there for the next 20 years. Still, the temperature amplitude of 80 degrees Celsius between winter low (about -50 degrees Celsius)

and summer high temperatures (up to +30 degrees Celsius) and the rapid transitions between long winters and short summers in this subarctic place (it is surrounded by boreal forest and is located approx. 250 km south of the Arctic Circle) remained extraordinary throughout the years.

All organisms in the Arctic have to adjust to the extreme differences in daylight and temperature, and the drastic variations in the availability of food sources, in the course of a year. While some mammals (such as brown bears, black bears, arctic ground squirrels, and Alaska marmots) hibernate, migratory birds just leave. Other species, including humans, need to make it somehow through the lean winter months without the adaptive strategies used by the animals mentioned above.

The remaining parts of this short article will address "traditional" anthropological topics connected to the theme of seasonality – such as seasonal subsistence rounds and Marcel Mauss' treatment of Inuit fluctuating social morphology – before progressing to the more contemporary topics of climate change impacts on seasonality and possible correlations between seasons and rhythms. I will conclude with some remarks about the possibility of connecting "traditional" and contemporary topics, that is by contemplating whether recent "more-than-human" approaches within and beyond anthropology help us in overcoming this somewhat counterproductive dichotomy of old vs. new.

Seasonal Rounds

While human activity everywhere shows a certain amount of seasonal fluctuation and variability, the greater the distance to the equator the more pronounced the seasonal environmental changes all living beings have to deal with. Although industrial food production and distribution in the Global North sometimes tries to pretend that everything is available all the time, preindustrial agricultural societies in all latitudes had to be highly cognizant of seasonality if they wanted to survive.

Livelihoods in the Arctic and Subarctic until recently were more or less exclusively based on hunting-and-gathering modes of subsistence, as "agriculture" was limited to hay making and similar auxiliary activities among groups with domesticated animals. The dog has been ubiquitous throughout the North for a long time, while domesticated reindeer were initially limited to northern Eurasia, and horses and cows were more or

limited to the settlement areas of the Sakha people (and some neighboring groups) in eastern Siberia.

Hunting, the dominant way of procuring animal meat in pre-agricultural societies, is dependent on the seasonal migratory behavior of the animal species pursued; the physical state changes of water add another layer of complexity. For example, the freezing of rivers, creeks and lakes makes the organisms under the ice less accessible for humans – if nor for ice fishing – but enables the use of these water bodies as transportation arteries in the pursuit of other animals. Another example is the spring whale hunt on the North Slope of Alaska, which not only requires the bowhead whales' annual return to the Arctic but also a certain amount of shore-fast sea ice, which allows the hunters to intercept the animals at the "edge of the ice."

While the naturalist seemingly can easily operate with the notion of four distinct seasons as known from temperate zones (Pielou 1994: 17), the caveat is, "but in the Arctic, winter is long and summer short, and the seasons between them could more aptly be described as 'warm-up' and 'freeze-up' than as spring and fall" (ibid.: 17f.). Thus, let us turn to what anthropologists and ethnologists had to say over the years. Unsurprisingly, almost every classical ethnography of the circumpolar North contains a discussion of subsistence activities conducted during different parts of the year, thereby at least indirectly discussing "seasonality." At the same time, it is rather rare in these very same ethnographies to encounter explicit discussions of the topic. That is, there are few ethnographic monographs of the circumpolar North that engage with emic concepts of seasons and seasonality, devote entire sections of their work to the "seasonal round" of the people or group in question, or contain an index entry on "season(s)," "yearly cycle" or similar.

One possible explanation for that is that many late 19th century/early 20th century classics of Arctic anthropology are focused on material culture (see, e.g., Murdoch 1892 and Nelson 1899 as examples from Alaska), thereby privileging the (seasonal) use of specific implements over a holistic treatment of northern life as experienced by its residents. While there is an impressive genealogy of early anthropological fieldwork interested in more than material culture (see Rosa and Vermeulen 2022 for a good overview), more self-consciously phenomenological and immersive ethnographies become common from the 1970s onwards. For example, Alaskan anthropologist Richard Nelson, who had conducted detailed ethnographic work in different parts of Alaska since the 1960s, moved to much more experiential writing trying to capture emic perspectives in his later works. In "Make

Prayers to the Raven" (Nelson 1983), he addresses seasonality repeatedly. Apart from providing Koyukon names for seasons (10 of them) and Koyukon equivalents of western system of months (Nelson 1983: 264f.), Nelson pays close attention to what seasons and seasonality mean for the communities he lived in and worked with. He addresses the emotional effects of different seasons (Nelson 1983: 40), the seasonality of food supply (240), as well as ritual/narrative means of shortening the dark winter season (Nelson 1983: 18). William Simeone, on the other hand, working with the Athapaskan people from Tanacross in interior Alaska, limited himself to the general statement, "life in Tanacross follows a seasonal pattern" (Simeone 1995: 9).

Ernest Burch, Jr., also didn't adopt the phenomenological perspective of Richard Nelson but rather the position of the meticulously crosschecking oral historian in his work on Northwest Alaska. His opus magnum "The Inupiaq Eskimo Nations of Northwest Alaska" (Burch 1998) is rich in references to the "yearly cycle." He discusses seasonal rounds for every notion of Northwest Alaska. The focus, however, is clearly on subsistence activities during particular times of the year and not seasons themselves (e.g., there is no indigenous nomenclature for seasons in the book), nor seasonality. A radically different understanding of "season" underlies Margaret Blackman's book "Upside Down" (2004). Here the "season" is the fieldwork season, reminding us that anthropological work in the North, with the exception of PhD research, is most often conducted in the summer, when universities are not in session. This is even more so among Arctic archaeologists, who would face serious issues if digging the frozen ground in other parts of the year than the summer.

Switching our attention to Siberia for a moment, John Ziker reminds us that the Nganasan in northern Siberia distinguish two "years" – "a summer year with four months and a winter year with eight months" (Ziker 2002: 29). Ziker, based on earlier work by Soviet ethnographers, also provides names of month-like parts of those years, with many of the names pointing to seasonal changes in the availability of certain animal species and/or subsistence activities (ibid.: 30). Susan Crate, working with the livestock-holding Sakha of Northeast Siberia, highlights the ecological constraints of the region, that is long winters and a short growing season (Crate 2006: 97). She also communicates the mythical and affective dimensions of seasonality. For example, the challenging season of winter is personified as a white bull with frosty breath, while summer is both cherished and

complained about, the latter because of all the work that needs to be done in a short period of time (ibid.).

Finally, the importance of seasons for the subsistence activities of the residents of the Canadian Arctic has been known since the days of Franz Boas (Boas 1888). More recently, Hugh Brody, a writer, anthropologist and filmmaker, remarked that "each northern culture has its seasonal round, its pattern of movement from camp to camp, hunting area to hunting area ..." (Brody 1987: 89). Brody also made the important point of connecting seasonality with "the readiness to move", something typically misunderstood by colonists from largely sedentary societies (ibid.: 95–97). Thus, seasonality among Arctic hunters is less akin to Central Europeans booking summer vacations half a year in advance, no matter what the actual conditions in July or August will be, but fine-tuned responses to seasonal environmental changes and less predictable animal movements.

Franz Krause has distinguished between two rather distinct anthropological approaches to seasons, "one seeing them as discrete temporal blocks, the other as interlocking rhythmical phenomena" (Krause 2013: 25). One characteristic of the first approach is a focus on the classificatory dimension, e.g., by investigating names and durations of seasons. The second approach is, according to Krause, defined more by an emphasis on "seasonality," that is on the changing lived human-environmental entanglements in the course of a year. Ignoring the rhythmical aspects for now, we can say our Arctic examples provided above speak to both approaches, some more to the first, others more to the second. Building on Krause's useful distinction, I suggest, however, to discern three distinct – but not mutually exclusive – positions in the brief overview presented above. One rather common position is not to write about seasons and seasonality, or to just state that life in x is seasonal, that is to take seasons and seasonality for granted. The two other positions are more closely aligned with what Krause had noted; thus, I use the terms he had used initially. One can be labeled "seasons" and focuses on descriptions of what people do at a particular time of the year, in addition to how people call this period. The other one can be labeled "seasonality" and focuses more on what seasons mean for people as agents of an ecosystem. Thus, our typology has four logical spots: 1) one where neither seasons nor seasonality are being discussed; 2) one where only seasons are at the center of attention; 3) one where only seasonality is at the center of attention; 4) one that treats seasons and seasonality. As we have seen, position 1 has been common, especially in the early years of Arctic anthropology, and might become more common

as scholars move their attention away from our topic to issues of resource extraction, postcolonial governance and reconciliation. While we have seen examples of 2 and 3, position 4 is rare but would obviously be some kind of ideal for the writer of these lines.

Marcel Mauss' Seasonal Variations

One obvious omission in the overview of Arctic anthropological treatments of seasons and seasonality is Marcel Mauss' "Seasonal Variations of the Eskimo" (1979[1950]). There are multiple reasons for doing so. Generally, the work is exceptional and distinct on many levels. It was published very early within the framework of Arctic anthropology (originally published in French as Mauss 1906), carries the word "seasonal" in its title unlike anything else published at the time or later, focuses on "social morphology" instead of environmental relations or subsistence activities, and is not based on fieldwork by the main author himself.[1]

While Marcel Mauss is a celebrated figure within the history of anthropology, "Seasonal Variations" has been a less than clear-cut success. While it could be said that Mauss' essay is one of the few instances in which Arctic or Inuit ethnography contributed to general theoretical developments within the discipline, Arctic anthropologists themselves quickly forgot about this piece of armchair anthropology. As Saladin d'Anglure (2004: 125) has pointed out, the authoritative volume "Arctic" of the Handbook of North American Indians did not even mention Mauss' essay. As Inuit studies based on fieldwork became the norm after World War I (and even more so after World War II), Mauss' well-researched but abstract treatise fell out of fashion and was largely forgotten. When the first English translation appeared in 1979, a few book reviews were published (e.g., Davis 1981) but only one from an Arctic anthropologist (Guemple 1981). While Guemple's review was largely favorable, "Seasonal Variations" did not make an impact at a time when Inuit Studies was pre-occupied with land claims and de-colonization. It has been much more recently that Mauss' essay has been quoted more extensively again (see, e.g., Bravo 2006; Dawson 2006; Friesen 2022; Liebst 2016; Saladin d'Anglure 2004).

1 Henri Beuchat, who is credited as a kind of co-author of the work ("Marcel Mauss in collaboration with Henri Beuchat") made it to the Arctic as part of the Canadian Arctic Expedition of 1913. Unfortunately, he perished during the expedition in the process of reaching the Siberian mainland after the ship *Karluk* had sunk (Fox 1979: 15).

"Seasonal Variations" is the only essay by Mauss devoted to a single people or ethnic group. Still, his intention was to arrive at more generally applicable conclusions (Mauss 1979: 20). The theoretical motivation was to produce a counter model to Friedrich Ratzel a*nthropogeography*, which was extremely popular at the time (see Bravo 2006 for an elaboration on this theoretical battle). The Danish Eskimologist H. P. Steensby, a disciple of Ratzel, became Mauss' sparring partner in things Inuit. Many of the substantive chapters of the essay speak to a remarkable and detailed knowledge base of Inuit societies Mauss had developed through library studies. At times, however, Durkheimian assumptions, not really backed up by the material presented, appear. For example, his statement that "... we can see that the limitation on Eskimo settlements depends on the way in which the environment acts, not on the individual, but on the group as a whole" (Mauss 1979: 35) does not seem to follow from the evidence presented in the pages before. When he talks about the causes of seasonal variations, a remarkable sentence appears: "it is by means of this technology [that is, their material culture – PS], a social phenomenon, that Eskimo social life becomes a veritable phenomenon of symbiosis that forces the group to live like the animals they hunt" (ibid.: 55). While the tone of the statement reflects the 19th century, some of its content seems much closer to our times. Neglecting the interesting suggestion of seeing technology as a social phenomenon for now, the notion of "symbiosis" between the human and "more-than-human" points to Mauss' attempts to go beyond Durkheim's socio-centric models. Still, on the following page, he returns to orthodoxy by stating, "although biological and technological factors may have an important influence, they are insufficient to account for the total phenomenon" (ibid.: 56).

Mauss goes on to talk about the effects of seasonal variations, arguing strongly that summer and winter life – as the two seasonal forms of social morphology – produce radically different legal systems (this part of his argument might be most problematic from today's perspective). In his conclusions, he attempts to generalize his findings. On the one hand, he argues that other societies have a twofold morphology as well. Mauss even refers to the annual summer vacation dispersion in France as one example (ibid.: 78). Interestingly, he switches terminology in the conclusions and speaks of "rhythm" now ("social life among the Eskimo goes through a kind of regular rhythm" – ibid.: 77). He clearly does that in order to capture more than seasonal changes, or "lesser rhythms" as he calls them (ibid.: 79). The Inuit case study leads him to the general conclusion that "social life

does not continue at the same level throughout the year" (ibid.: 78), a "law" he considers applicable universally. In the end, Mauss' essay, written almost 120 years ago, remains a remarkable document even today. Among other things, it introduces three dimensions, which I want to further elaborate in the final section: ecology, rhythm and symbiosis.

Concluding Remarks: Climate Change, Rhythms, and Humans in the World

In recent years, there has been a growing number of interdisciplinary studies focusing on the impacts of climate change on seasonality. Focusing on Alaska again, the article "Anatomy of a Closing Window" by McNeeley and Shulski (2011) is an early example of a study of how climate change trends do and will affect the seasonal availability of resources critical for subsistence activities. One of their examples is that the seasonal availability of moose in the fall might be delayed. This points to non-ecological problem, as moose hunting season is regulated to end on September 25 in Alaska. Thus, while human hunters can adjust to seasonal changes in the availability of animals, the regulatory framework might prohibit that.

Likewise, Herman-Mercer's et al. (2019) study points to the cumulative impacts of climate change and socio-cultural change. Seasonal shifts in resource availability create vulnerabilities here (in the Yukon-Kuskokwim Delta) as well. Shifting from the land to the sea, another study has detailed the impacts of seasonal changes in Arctic waters, leading to increased periods of open water in the Bering Sea during winter (Erickson and Mustonen 2022). As climate change proceeds, the problem will no longer be shifting seasonal patterns only but the mounting danger of unpredictability as to what and when.

One danger of current climate change debates is the separation between natural and human history, seeing human agents primarily as destroyers of "nature." It seems, however, that we should follow the lead of Bathsheba Demuth, who in her recently published wonderful "Floating Coast: An Environmental History of the Bering Strait" (Demuth 2019), asks the question, "what is the nature of history when nature is part of what *makes* history?" (ibid.: 3).

Franz Krause (2013; see also Krause, this issue) has made a convincing argument for viewing seasons as rhythms. Inspired, primarily, by Tim Ingold's writings on "taskscapes," his argument against a focus on seasons is intended to bring in a multitude of temporal and repeated changes. Henri

Lefebvre's writings, which also influenced Krause, point to one important characteristic of "rhythm", namely "repetition" – "no rhythm without repetition in time and space …" (Lefebvre 2016: 16). While Mauss' notion of rhythms was different from Krause – Mauss seemed to reserve it for fluctuations in human aggregations – his work can still serve as an argument for replacing the somewhat climate-centered "seasons" with "rhythms."

Finally, throughout all anthropological and social science writings on seasons and seasonality runs a somewhat unresolved ambiguity and dichotomy between nature and culture. Mauss provides a vivid example of that, acknowledging the importance of environmental factors for "seasonal variations," while insisting on the irreducible power of the social. While Krause's contribution is an explicit attempt to address the problem – by moving away from "'social' adaptations to 'natural' phenomena" (Krause 2013), we still seem to be left struggling terminologically, as can be seen in the awkward "more-than-human" phrase often used in anthropology today. Is there a way forward capturing the changing rhythms of the multitude of agents and actants inhabiting our planet within a single conceptual framework?

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References cited

Blackman, Margaret B.
2004 Upside Down. Seasons among the Nunamiut. Lincoln: University of Nebraska Press.

Boas, Franz
1888 The Central Eskimo. Washington, DC: Government Printing Office.

Bravo, Michael T.
2006 Against Determinism. A Reassessment of Marcel Mauss's Essay on Seasonal Variations. *Études/Inuit/Studies* 30/2: 33–49.

Brody, Hugh
1987 Living Arctic. Hunters of the Canadian North. Vancouver, BC and Seattle: Douglas & McIntyre and University of Washington Press.

Burch, Ernest S., Jr.
1998 The Inupiaq Eskimo Nations of Northwest Alaska. Fairbanks: University of Alaska Press.

Crate, Susan A.
2006 Cows, Kin, and Globalization. An Ethnography of Sustainability. Lanham, MD: AltaMira Press.

Davis, J.
1981 Review of 'Seasonal Variations of the Eskimo' and 'Sociology and Psychology' by Marcel Mauss. *The British Journal of Sociology* 32/2: 280f.

Dawson, Peter C.
2006 Seeing Like an Inuit Family. The Relationship between House Form and Culture in Northern Canada. *Études/Inuit/Studies* 30/2:113–135.

Demuth, Bathsheba
2019 Floating Coast. An Environmental History of the Bering Strait. New York: W. W. Norton.

Erickson, Kaare Ray Sikuaq, and **Tero Mustonen**
2022 Increased Prevalence of Open Water During Winter in the Bering Sea. Cultural Consequences in Unalakleet, Alaska, 2022. *Oceanography* 35/3-4:180–188.

Fox, James J.
1979 Translator's Foreword. In: Marcel Mauss, Seasonal Variations of the Eskimo. A Study in Social Morphology; pp. 1–17. London: Routledge & Kegan Paul.

Friesen, T. Max
2022 Hunter-gatherer Aggregations Writ Large. Economy, Interaction, and Ritual in the Final Days of the Tuniit (Late Dorset) Culture. *Journal of Anthropological Archaeology* 67:1–23.

Guemple, Lee
1981 Review of 'Seasonal Variations of the Eskimo' by Marcel Mauss. *American Anthropologist* 83: 937f.

Herman-Mercer, Nicole M, et al.
2019 Vulnerability of Subsistence Systems Due to Social and Environmental Change. *Arctic* 72/3: 258–272.

Krause, Franz
2013 Seasons as Rhythms on the Kemi River in Finnish Lapland. *Ethnos* 78/1:23–46.

Lefebvre, Henri
2016 Rhythmanalysis. Space, Time and Everyday Life. London: Bloomsbury Academic.

Liebst, Lasse S. 2016 Reassembling Durkheimian Sociology of Space. In: S. Griffiths and A. von Lünen (eds.), Spatial Cultures. Towards a New Social Morphology of Cities Past and Present; pp. 214–224. London: Routledge.

Mauss, Marcel (avec la collaboration de H. Beuchat)
1906 Essai sur les variations saisonnières des sociétés eskimo. Étude de morphologie sociale. *L'Année sociologique* 9 (1904-1905): 39–132.
1979[1950] Seasonal Variations of the Eskimo. A Study in Social Morphology. London: Routledge & Kegan Paul.

McNeeley, Shannon M., and **Martha D. Shulski**
2011 Anatomy of a Closing Window. Vulnerability to Changing Seasonality in Interior Alaska. *Global Environmental Change* 21: 464–473.

Murdoch, John
1892 Ethnological Results of the Point Barrow Expedition. Washington, DC: Government Printing Office.

Nelson, Edward William
1899 The Eskimo About Bering Strait. Washington, DC: Government Printing Office.

Nelson, Richard K.
1983 Make Prayers to the Raven. A Koyukon View of the Northern Forest. Chicago: University of Chicago Press.

Pielou, Evelyn C.
1994 A Naturalist's Guide to the Arctic. Chicago: The University of Chicago Press.

Rosa, Frederico Delgado, and **Han F. Vermeulen** (eds.)
2022 Ethnographers Before Malinowski. Pioneers of Anthropological Fieldwork, 1870–1922. New York: Berghahn Books.

Saladin D'Anglure, Bernard
2004 Mauss et l'anthropologie des Inuit. *Sociologie et sociétés* 36(2): 91–130.

Simeone, William E.
1995 Rifles, Blankets, and Beads. Identity, History, and the Northern Athapaskan Potlatch. Norman: University of Oklahoma Press.

Ziker, John P.
2002 Peoples of the Tundra. Northern Siberians in the Post-Communist Transition. Prospect Heights, IL: Waveland Press.

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The Vienna "Kulturkreislehre":

Significant Early Attempts to Combine Ethnology and Prehistory for a Universal Historiography

Peter Rohrbacher

Abstract. – This study examines the cooperation between representatives of ethnology and prehistory in Vienna in the period from 1910 to 1960. The focus is on the theory of cultural circles conceived by the two priest ethnologists Wilhelm Schmidt and Wilhelm Koppers, which the prehistorian Oswald Menghin applied to prehistory for the first time in 1931. However, the parallelisation of prehistoric and ethnological cultures was methodologically controversial. Fundamental discussions led to fractures and new alliances. Koppers entered into an alliance of convenience with V. Gordon Childe to combat the Nazi doctrine of race from an ethnological and prehistoric perspective. Robert Heine Geldern developed a migration theory about the prehistory of Southeast Asia based on the work of Menghin and the Austronesian language family introduced by Schmidt. In the postwar period, the cultural circles theory was abandoned in Vienna and a universal-historical approach was developed, which also included advanced civilisations ("high cultures") and prehistory. [*Vienna school of ethnology, history of anthropology, Wilhelm Koppers, V. Gordon Childe, diffusionism, Austronesian migration, Robert Heine-Geldern*]

Introduction

The Vienna school of ethnology linked the "cultural circle theory" with prehistory in order to lend more credibility to the ethnological "primordial cultures" (*Urkulturen*) that they postulated. With his monumental work "World History of the Stone Age" (*Die Weltgeschichte der Steinzeit*) in 1931, the Austrian prehistorian Oswald Menghin tried to accomplish synthesis and thus set new standards for cultural-historical ethnology. However, the parallelization of prehistoric and ethnological cultures was methodologically contestable and led to fundamental discussions between representatives

of ethnology and prehistory. A separate section is devoted to Southeast Asia, which became a key region of ethnology and prehistory in Vienna through Robert Heine-Geldern. This study reflects on the most important stages of this collaboration in the period from 1910 to 1960.[1]

Prehistoric Hypotheses: Wood and Bone Cultures

When the German cultural-historical method was founded in ethnology in the first decade of the 20th century, the field of prehistory was weakly developed outside Europe. Systematic approaches were, as Fritz Graebner stated, "only available in North America and Japan" (1911: 74).

In order to achieve a relative chronology for the cultural strata in the respective regions of the earth, the integration of prehistory was the "main demand for the future" (ibid.: 75) for cultural-historical ethnology. Father Wilhelm Schmidt, the founder of the Viennese "Kulturkreislehre" in 1912, also correctly identified a "local limitation of contemporary prehistory", i.e. that prehistory could not provide objects made of easily perishable materials, such as tools made of wood and all wickerwork products (Schmidt and Koppers 1924: 108). He thus stated that Graebner's demand to integrate prehistory into cultural-historical ethnology was hardly possible at that time.

To address this research gap on the prehistoric side, Schmidt developed far-reaching prehistoric hypotheses that were discussed until the 1950s and sometimes led to heated debates. As is well-known, Schmidt further developed the cultural circles conceived regionally by Leo Frobenius, Bernhard Ankermann, and Fritz Graebner and connected them within universal history with small-scale hunter-gatherer groups, which he grouped together as "Pygmies." He noticed a common feature: Pygmies used neither stone nor metal tools to make bows and arrows. "The Paleo and 'Eolithic' Ages," according to Schmidt, must have already been preceded by a "wood and bone or shell age" (Schmidt 1910: 107f.). From this Schmidt drew the conclusion that the recent Pygmy peoples were representatives of the oldest

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human *Urkultur* (ibid.: 280, 304), which he also linked to the idea that the earliest forms of religious belief were monotheistic.

Based on these hypotheses, Schmidt (1915–1916: 607) postulated a new theory on nomadism, which he further developed together with his student Wilhelm Koppers (Schmidt and Koppers 1924: 506, 512). The theory assumed that the domestication of herd animals had its starting point in southern Siberia. There, the reindeer had been "made the first herd animal" by primeval hunters analogous to the domestication of the dog. Schmidt and Koppers relied on the research results of the Danish anthropologist and archaeologist Gudmund Hatt (1919), who proved empirically that Samoyed hunters and gatherers not only hunted wild reindeer but also tamed them to use them as lures for other wild animals (Vajda 1968: 59). Schmidt and Koppers, in contrast to Graebner, elevated nomadism to a distinct and worldwide "pastoral cultural circle" derived from hunter-gatherers that played an important role in the development of advanced civilizations or "high cultures" (*Hochkulturen*). The theory on nomadism of the Vienna school was intended to reform the conventional evolutionist so-called "three-stage theory" but also to debunk the studies of Eduard Hahn, who derived nomadism from sedentary agriculture in Mesopotamia and did not regard it as an independent economic form (Hahn 1905: 96f.). As conclusive as this theory of the Vienna school was, it lacked any substantial archaeological evidence.

To a certain extent the Vienna school's nomadic theory also included a consideration of seasonality. For the Asian regions, Koppers emphasized, nomadism did not always follow the same course, which is why a distinction had to be made between summer and winter sojourns. He referred to ethnographic examples of the Turkic Tatars, as documented by Arminius Vámbéry (Schmidt and Koppers 1924: 522). In this elementary sense, a notion of seasonality was indeed intrinsic to the Vienna school's nomadic theory. However, the term transhumance for the economic form in which livestock raising farmers combine their herds' seasonal migrations with their own fixed residences is not yet used in the writings of Schmidt, Koppers, and Menghin. Only Schmidt's disciple Dominik J. Wölfel, who was not an advocate of the cultural circle theory, began to use the term in his detailed descriptions of transhumance in the context of his linguistic-historical research on the Mediterranean region and the Canary Islands (Wölfel 1942: 119; Vajda 1968: 30).

The task of testing these hypotheses with methods of prehistory was undertaken by Oswald Menghin, who was the first to apply the cultural

circle theory and methodology to prehistory (Veit 2013: 189). He came into contact with Schmidt's complex body of theory as early as 1910, but it would be another two decades before he presented his major synthesis "Die Weltgeschichte der Steinzeit" (Menghin 1931) to the public. The book was the first work to approach prehistory in a global perspective. Menghin largely followed Schmidt's conception. He devoted extensive space to the "alithic wood culture" (Menghin 1931: 88f.), from which he derived the three prehistoric cultural circles: bone culture, blade culture, and hand-axe culture (Urban 2021: 246). Menghin also postulated a Bone Age that preceded the Stone Age. He called it the "Protolithic bone culture," which he associated with the Arctic culture area, where bones played an important role in tool making (Menghin 1931: 87, 501f.; Urban 2021: 238). However, he could present no archaeological evidence for this. He also commented succinctly on the reindeer question: "Whether reindeer husbandry occurred, we do not know" (Menghin 1931: 239). Schmidt (1937: 270) stated that Menghin's book had brought the results of ethnology and prehistory "to a certain extent to a common ground," but the central hypotheses of the ethnological cultural circle theory remained unproven.

Interestingly, Menghin's book was very positively received in the USA and Great Britain, in contrast to Germany and Austria. The US anthropologist Franz Boas, for example, immediately adopted (1932 [1928]: 133) Menghin's bone culture in his book "Anthropology and Modern Life," which has been reprinted several times up to the present. British prehistorians like V. Gordon Childe (1931) praised Menghin's work because he had attempted to reconstruct the prehistoric period globally and summarize it in one work. Others such as Robert MacAlister (1931: 202) and Miles C. Burkitt (1931: 845; 1933: vii) were so enthusiastic about Menghin's book that they repeatedly called for an English translation. Obvious deficiencies in content were rarely addressed. South America, for example, was hardly represented, which was actually surprising, since Schmidt (1913) provided the best ethnological justification for the cultural circle theory for this region. Menghin only attempted to fill this regional gap during his "second career" in South America, after he fled to Argentina in April/May 1948 as a wanted war criminal (Kohl and Pérez Gollán 2002: 569, 574).

Beyond the Cultural Circle Theory: Southeast Asia

The constructive integration of prehistory into cultural-historical ethnology did not only concern the theory of cultural circles. It is worth remembering Viennese ethnologist Robert Heine-Geldern, who introduced the term Southeast Asia in 1923 and thus initiated a regional field of subdisciplines. The new term also included archaeological prehistory (Heine-Geldern 1923: 753–766). Subsequently an intensive collaboration with Menghin ensued, which is hardly ever mentioned in the history of research. Their friendly relationship of cooperation went so far that Heine-Geldern even passed on essential data he had compiled about Indonesia to Menghin for evaluation. The correspondence with Heine-Geldern's most important archaeological informant Pieter Vincent van Stein Callenfels about the excavation site Guwa Lawa (today Gua Lawa) in Sampung on East Java formed a substantial source of information for Menghin (1931: 128). The significance of van Stein Callenfels' archaeological work is reflected in the fact that Heine-Geldern later dedicated a separate work to him (Heine-Geldern 1945). Thus, Menghin was able to prove his postulated Protolithic bone culture not only for the Arctic region but also for Southeast Asia (Menghin 1931: 128). Conversely, Menghin informed Heine-Geldern about archaeological collections of East Asian materials, which he became acquainted with during his visits to the British Museum in London and to the Museum of Far Eastern Antiquities (Östasiatiska museet) in Stockholm (Heine-Geldern 1928: 813; 1932: 594).

This academic cooperation bore fruit despite Menghin's and Heine-Geldern's fundamentally different political and theoretical attitudes. It is difficult to deny, however, that Menghin's work on the Stone Age of East Asia (Menghin 1928) was largely based on Heine-Geldern, who in turn adopted much of Menghin's prehistory. Menghin's tripartite division of paleolithic cultures into hand axe, blade, and bone cultures was transferred to Southeast Asia by Heine-Geldern (1932: 544), as was the term "Quadrangular adze culture" (*Vierkantbeilkultur*) (Heine-Geldern 1945: 139) for the Late Neolithic, which, as Heine-Geldern pointed out, was "borrowed from an oral suggestion by Menghin" (Heine-Geldern 1932: 566). Heine-Geldern's engagement with archaeology also had important repercussions in another interdisciplinary debate of those decades. Schmidt, appropriately, is considered to this day as the researcher who first identified the Austronesian language family. On this linguistic basis and by including prehistory, Heine-Geldern developed a theory of the Austronesian migration.

According to him, it had proceeded in the second millennium B.C. from South China to India and via Laos and Vietnam to the Malay Peninsula and to today's Indonesia, and from there further to Oceania and Madagascar (Heine-Geldern 1932: 576; 1935: 308).

This collaboration also had an impact upon important members of the next generation of ethnologists in Vienna. A first example is Christoph Fürer-Haimendorf, who studied ethnology under Koppers and Heine-Geldern and prehistory under Menghin at the University of Vienna from 1927 to 1931. His ethnological dissertation dealt with the so-called hill tribes of Assam and Northwest Burma. He then became a graduate assistant (*wissenschaftliche Hilfskraft*) to Koppers and in November 1934 his research assistant. During this time, Fürer-Haimendorf was intensively engaged in analyzing the prehistoric archaeology of Australia. His extensive work "On the Prehistory of Australia" ("Zur Urgeschichte Australiens"), which appeared in *Anthropos* in 1936, was intended to fill an important gap in research from the perspective of the theory of cultural circles. Menghin (1931: 109f.) had hardly addressed this region in his *Weltgeschichte*. However, Fürer-Haimendorf (1932: 629; 1936: 7, 31, 436, 449) largely followed Heine-Geldern's theses regarding certain Neolithic finds on the settlement history of Australia. It was also Heine-Geldern who convinced Fürer-Haimendorf (1990: 6) to henceforth make India and no longer Australia his field of research (Macfarlane and Turin 1996: 548). This career plan worked out: in 1935 Fürer-Haimendorf received a one-year Rockefeller Fellowship, which enabled him to conduct his first field research among the Naga of Assam, along the north-eastern frontier of India.

Another example is the U.S. anthropologist Edwin M. Loeb, who conducted ethnological field research in Sumatra in 1926 and 1927. His book "Sumatra. Its People and History" (Loeb 1935) was published in January 1935 by the Institute of Ethnology at the University of Vienna, and Heine-Geldern (1935) contributed the archaeological part to it. Research on prehistory in Sumatra was continued in Vienna, above all by Frederic Martin Schnitger. He was born in Java in 1912 but grew up in Holland, where he began Oriental studies in Leiden. In 1936, he moved to Vienna and graduated from the University of Vienna in January 1937 with a degree in ethnology. His dissertation, "A Contribution to the Archaeology and Cultural History of Sumatra" ("Ein Beitrag zur Archäologie und Kulturgeschichte von Sumatra"), was supervised by Koppers and Menghin (Schnitger 1937a; Anderl and Mittersakschnöller 2021: 698). In terms of content, however, it drew on the thesis of Heine-Geldern, who had postulated and elaborated external

cultural-historical influences from China and India for the megalithic cultures on the island of Nias. The study of the megalithic cultures on Nias was also quite revealing from an ethnological point of view, as these ancient stone objects occupied a central place in the festivals and rituals of the islanders. Schnitger examined the cultural heritage of the megaliths on Sumatra in 1935 and 1936 and supported the insightful thesis of Heine-Geldern, who had never traveled to the region, through actual field research. His dissertation was published in English in 1937 in the Leiden-based journal *Internationales Archiv für Ethnographie* (Schnitger 1937b). It is considered to be the first dissertation on the archaeology of Sumatra (Anderl and Mittersakschnöller 2021: 698). Schnitger's best-known book, "Forgotten Kingdoms in Sumatra" (1939), was the one intended for a wider public, to which Fürer-Haimendorf contributed an appendix on the prehistoric archaeology of Assam (Fürer-Haimendorf 1939). Both authors followed Heine-Geldern's thesis about the common origin of megalithic culture in Southeast Asia and India. While Fürer-Haimendorf continued his anthropological career first in India and then in Great Britain with an increasingly functionalist orientation (Gingrich 2021: 1607), Schnitger died a presumably violent death in the Mauthausen concentration camp in 1945, shortly before the end of the Second World War.

Fractures and New Alliances

As mentioned before, Menghin became acquainted with the cultural circle theory through Schmidt. However, it was Koppers (1931: 223) who had introduced Menghin to this theory in the summer of 1918. The academic relationship between the two was marked by a long-standing collaboration, but it ended abruptly in 1931 and henceforth lay in ruins. The trigger was Koppers' book review of Menghin's "Weltgeschichte der Steinzeit." It contained twenty-one pages and showed that Koppers did not agree at all with Menghin's views. He claimed that the adaptation of the theory of cultural circles to prehistory had been done too hastily because the ethnological cultural circles themselves were still too uncertain. The main point of Koppers' criticism concerned Menghin's positioning on the so-called "Indo-European question" (Koppers 1931: 238–241). In his very influential work, Menghin advocated the Northern thesis (Rebay-Salisbury 2011: 48), which was incompatible with the ethnological theory of cultural circles (Schmidt 1935: 139f.).

Menghin saw Koppers as the main representative of the Vienna school of ethnology and had not expected such a negative review from him. After the publication of the book review in *Anthropos* in June 1931, he communicated his disappointment to Fritz Kern, a German medievalist with whom he had a close friendship:

> It was a mistake, after all, that I cast the book before swine, that is, before the German academic public, instead of having it published in English, as I initially intended
> (Bonn University Archives, Fritz Kern papers 11B; Menghin to Kern, June 15, 1931; translation by the author).

Koppers' criticism was also followed by other negative reviews from prehistorians in Germany (Jacob-Friesen 1932). At this point Menghin turned away from political Catholicism. His first political activities in connection with the NSDAP can be dated to 1923 (Obermair 2024: 143). He maintained them even though National Socialism had been banned from legalized party politics in Austria since June 1933. For Koppers, whose assistant Fritz Flor was arrested in January 1934 for National Socialist activities (and dismissed from the University of Vienna a few months later) (Koll 2021: 316), further collaboration with Menghin was no longer possible.

At the same time, Koppers sought an alliance with the British prehistorian V. Gordon Childe, who also advocated a diffusionist concept of culture and, like Koppers, rejected the extreme position advocated by Grafton Elliot Smith and William J. Perry (Brami 2019: 325). Childe held a materialist worldview while being an explicit opponent of National Socialism. Between October 1933 and March 1934, Childe published five articles in which he explicitly attacked the racist ideology of the Nazi state (Díaz-Andreu 2009: 97f.; Meheux 2023). Childe was particularly critical of the political instrumentalization of Gustav Kossinna's writings on prehistory, which were elevated to a new guideline for teaching history in German schools in a decree issued by Wilhelm Frick, the Nazi minister of the interior (Childe 1934). Here the fundamental agreement between Koppers and Childe becomes apparent, since the "Nordic"-oriented theory of cultural circles advocated by Kossinna had been explicitly rejected by Graebner (1911: 76) and the Vienna school of ethnology (Schmidt 1935: 137f.; Koppers 1959: 111).

The first personal meeting between Koppers and Childe took place in July 1934, at the First World Congress of Anthropology and Ethnology in London. Koppers gave the lecture "The Indo-European Question in the Light of Historical Ethnology" and argued that the origin of the Indo-Eu-

ropeans was to be found on the southern Russian steppes. Childe, who was sitting in the audience, supported Koppers' "Eastern thesis" (*Ostthese*) (Koppers 1934: 185–187; 1935: 2). Childe soon had the opportunity to position himself explicitly as a sympathizing affiliate of the Vienna school of ethnology. The well-known German "race theorist" Hans F. K. Günther (1934: 233) held that Indo-Europeans were to be equated with the origin of the Nordic race and polemicized against Koppers for advocating the Eastern thesis. Childe (1935: 235) then disavowed Günther in June 1935 as "the leading representative of the anthropological creed of contemporary Germany." Referring to Koppers, he clarified that the claimed traces of the Nordic race among the "Aryan-speaking" peoples of Asia were not archaeologically verifiable (ibid.: 236).

When it became apparent that a commemorative publication (*Festschrift*) for Herman Hirt (Arntz 1936), the leading Indo-Europeanist in Nazi Germany, was planned to support and expand the Northern thesis with the methodology of cultural history and anthropology with over forty contributions, Koppers and eight colleagues decided to publish a refutation. This refutation was to clarify and strengthen the Eastern thesis. Among the authors was V. Gordon Childe, with whom Koppers had corresponded in advance. The concluding sentence of Childe's essay, "The Antiquity of Nordic Culture," read as follows:

> If Indogermanen really be the agents in the diffusion of the stone battle-axe, they cannot have started from Denmark but must have arrived there quite late in their wanderings (Childe 1936: 530).

Battle-axes and corded pottery were generally considered to be guide fossils for the Indo-European migration, whose origin Childe did not locate in northern Europe, as the representatives of the Northern thesis claimed. Koppers (1936) dealt in his contribution with the cultural comparison of the inner-Asian widespread horse cult and the horse sacrifice complex, which he traced back culturally to Turko-Altaic or Turko-Mongolian groups, where he also placed the center of origin of the oldest horse herders. Despite fundamentally different political views, the collaboration between Childe and Koppers was intense and can be understood as an alliance of convenience in the context of National Socialism.

The view that the origin of Indo-Europeans was to be sought in the southern Russian steppes was diametrically opposed to the racial doctrines of the Nazi state. Both Schmidt and Koppers were dismissed from the University of Vienna in 1938 in the wake of the Nazi seizure of power (Gin-

grich 2005: 110; Rohrbacher 2021: 1490f.). On the politically highly charged "Indo-European question," Menghin (1936) did not support Koppers or Childe but rather another emerging alliance that advocated Herman Hirt's Nazi Northern thesis. While Schmidt, Koppers and Heine-Geldern had to go into exile in 1938, Menghin became Minister of Education in Vienna, and under his leadership numerous dismissals at universities took place until the end of May 1938 (Ash 2017: 55f.; Urban 2021: 267f.; Obermair 2024: 268f.).

End of the Cultural Circle Theory, Separate Ways, and High Culture Studies

In contrast to Koppers, Schmidt devoted himself intensively to prehistory during his exile in Switzerland. Besides the prehistoric Wood and Bone Age, he likewise postulated a prehistoric Bamboo and Antler Age based on ethnological findings (Schmidt 1942: 30). After the end of the Second World War, prehistorians and anthropologists increasingly criticized the Vienna cultural circle theory. The German prehistorian Günter Smolla, for example, reviewed the wood and bone culture postulated jointly by Schmidt and Menghin and concluded that there had never been an "alithic period" in human cultural history. He did concede that wood had most likely been used from the beginning, but the oldest verifiable human tools were made of stone (Smolla 1953: 99). The theory on nomadism of the Vienna school was also increasingly shaken. For example, the Austrian ethnologist Karl Jettmar (1952), citing Soviet Russian studies, pointed out that reindeer herding was a relatively recent phenomenon and thus stood not at the beginning but at the end of the series of animal domestications.

Despite the persistent criticism, which also came from the closest circle of his dissertation students (Hermanns 1949), Schmidt (1951) stuck to his theory on nomadism and defended the cultural circle theory until the end of his life in 1954 (Haekel 1956: 23; Gingrich 2005: 141). Koppers, however, reacted differently and opened himself to criticism. According to his own statements, he had already had doubts about the correctness of the theory on nomadism in 1937 at the Second Turkish History Congress, in Istanbul, since it could not be reconciled with the "facts of prehistory" (Koppers 1959: 121). In June 1952, at an international anthropological congress in New York, he revoked the "pastoralist culture circle" and with it an essential aspect of the cultural circle theory (Koppers 1952b: 79). However, he did not retract the overall conception until after the death of his teacher, and af-

ter it had been recanted at the Institute of Ethnology by his successor, Josef Haekel, at the first Wartenstein Symposium, in 1958 (Koppers 1959: 121; Pusman 2008: 268). Koppers continued to adhere to the cultural-historical method of ethnology as well as to the possibility of providing "ethnological proof of God" on an empirical basis.

Fig. 1: Meeting of the Conseil Permanent in the Senate Hall of the University of Vienna, from left to right: Wilhelm Schmidt, Robert Heine-Geldern (both seated), and Wilhelm Koppers (standing), Fourth International Congress of Anthropology and Ethnology, September 1–8, 1952

(Source: private archive Stephanie Wiesbauer)

Against this background, which Wernhart (2022: 188) aptly described as "rearguard action," Koppers attempted to redefine the relationship between prehistory and ethnology in numerous articles in the 1950s (Koppers 1951a–b; 1952a–c; 1953; 1957). Thus he continued his criticism of Menghin from 1931 and distinguished between the possibility of free and bound parallelization. In contrast to bound parallelization, free parallelization allows the ethnological interpretation of prehistoric finds without a direct genetic connection. He saw illustrative examples of genetic parallelization among the Yámana (or Yahgan) in South America and the Pueblo in North

America (Koppers 1951b: 50f.; 1953: 4). Koppers' differentiation was taken up by some prehistorians, as the example of the German prehistorian Karl Narr (1955) shows. Koppers, however, went one step further. At the Fourth World Congress of Anthropology and Ethnology, in Vienna in September 1952, he argued for a "historical-ethnological proof" in which prehistory should not play a decisive role (Koppers 1953: 16).

Most prehistorians regarded Koppers' demand as an inadmissible intrusion into their field of research. In particular, Richard Pittioni (1952: 288), part-time professor and chair of prehistory at the University of Vienna since 1946 (Friedmann 2011: 73), rejected the "fundamental justification of bound parallelism." He referred to the great temporal difference between prehistoric and ethnological cultural forms, which would prohibit a direct "correlation." All recent cultural forms, he argued, however "primitive" (*urtümlich*) they might appear, arose only after the Stone or Ceramic Age (Pittioni 1952: 290). The historical depth that ethnology can reckon with is limited to a maximum of 10,000 years and is thus relatively small (Pittioni 1954: 82). Therefore, he introduced the temporal term "ethnologic" (*Ethnologikum*) to distinguish ethnological from prehistoric cultural forms (Pittioni 1952: 290). For Pittioni, this resulted in an "absolute independence of prehistory" as a historical discipline (ibid.: 289), a demand that also manifested itself on an institutional level through the "prehistoric working group" he founded within the Anthropological Society in Vienna (Pittioni 1950). Pittioni abruptly terminated ongoing attempts to continue collaboration between prehistory and ethnology as suggested by Koppers.

In the further course of this interdisciplinary debate, Koppers limited his approach to the field of high culture research (*Hochkulturforschung*) of the Late Neolithic. He argued that "genetic links of prehistoric and ethnological cultures" could be found where high cultural developments "have overgrown and destroyed conditions even less" (Koppers 1953: 3). With this postulate, Koppers took up the research of Heine-Geldern, who methodologically combined high culture research with socio-cultural anthropology and archaeology. Before Heine-Geldern returned to Vienna from US exile in 1949, he and US archaeologist Gordon F. Ekholm developed a transpacific diffusion theory, according to which seafaring groups brought elements of Asian "high cultures" from East and South Asian coastal areas across the Pacific into the Andean region and Mesoamerica from 700 B.C. onward (Heine-Geldern 1954; 1955). This refuted the common view of the independent emergence of the American high cultures (Dostal 2002: 451). Koppers and Heine-Geldern now jointly argued that the emergence of the

high cultures of Egypt, the Mediterranean, China, Japan, India, and Southeast Asia had a unified starting point in the Near East. This monogenetic approach in high culture studies was seen as a universal-historical counter to Oswald Spengler, Arnold Toynbee, and Karl Jaspers, whose approaches to the philosophy of history assumed multiple and independent centers of high cultures (Koppers 1957).

Summary

This article can be summarized in the following four points: 1) The Vienna school of ethnology developed a number of hypotheses about prehistory that could only be verified by a collaboration between ethnology and prehistory. Among the central hypotheses was the assumption of an alithic Wood or Bone Age that preceded the Stone Age. Equally important was the assumption of a monogenetic origin of the domestication of herd animals, which originated in southern Siberia and spread from there across the globe. Despite great efforts, prehistory has not succeeded in finding material to prove the hypotheses. The nomadic theory of the Vienna school also included seasonality for the Asian regions. However, the term transhumance was not used. It is only found in the works of Schmidt's disciple Dominik J. Wölfel, who, like Robert Heine-Geldern, was not a supporter of the cultural circle theory. 2) Menghin's collaboration with Heine-Geldern, a Viennese Southeast Asia specialist, brought greater success. As could be shown, Heine-Geldern in cooperation with Menghin developed a migration theory on the prehistory of Southeast Asia, based on the Austronesian language family as introduced by Schmidt. This interdisciplinary research was taken up by Heine-Geldern's students and continued through intensive fieldwork in Assam and Sumatra. 3) After a long and intensive collaboration, disagreements arose between Koppers and Menghin in 1931, which led to the end of their collaboration in the mid-1930s. The decisive factor was their different positions on the origin of the Indo-Europeans, which was highly charged politically in the context of National Socialism. Until now, it was little known that Koppers entered into a short-term alliance of convenience with the British prehistorian V. Gordon Childe in order to combat Nazi racial doctrine from the perspective of ethnology and prehistory. 4) The progress in prehistory did not confirm the cultural circle theory. On the contrary, in the early 1950s, Koppers had to abandon the pastoral cultural circle due to facts of prehistory. A few years later the whole

cultural circle theory was revoked. In cooperation with Heine-Geldern, a universal-historical approach in high culture research succeeded, including prehistory. In conclusion, it can be noted that the hypotheses of the cultural circle theory have significantly stimulated prehistory. Whether the stone cultures were actually preceded by wood or bone cultures also seems possible from today's perspective but can be neither verified nor falsified (Urban 2021: 237).

References Cited

Anderl, Gabriele, and **Reinhold Mittersakschnöller**
2021 Gefährliches Spiel mit dem Feuer: Frederic Martin Schnitger, Archäologe und Indonesienforscher. In: Andre Gingrich and Peter Rohrbacher (eds.), Völkerkunde zur NS-Zeit aus Wien (1938–1945): Institutionen, Biographien und Praktiken in Netzwerken; pp. 687–722. Wien: ÖAW. [*Phil.-hist. Kl., Sitzungsberichte* 913; *Veröffentlichungen zur Sozialanthropologie* 27/2]

Arntz, Helmut (ed.)
1936 Germanen und Indogermanen. Volkstum, Sprache, Heimat, Kultur. Heidelberg: Winters Universitätsbuchhandlung. [Festschrift für Herman Hirt 1]

Ash, Mitchell G.
2017 Die österreichischen Hochschulen in den politischen Umbrüchen der ersten Hälfte des 20. Jahrhunderts. In: Johannes Koll (ed.), „Säuberungen" an österreichischen Hochschulen 1934–1945: Voraussetzungen, Prozesse, Folgen; pp. 29–72. Wien: Böhlau.

Boas, Franz
1932 Anthropology and Modern Life. New and revised edition. New York: Norton. [1928]

Brami, Maxime N.
2019 The Invention of Prehistory and the Rediscovery of Europe. Exploring the Intellectual Roots of Gordon Childe's 'Neolithic Revolution' (1936). *Journal of World Prehistory* 32/4: 311–351.

Burkitt, Miles Crawford
1931 Review O. Menghin, Weltgeschichte der Steinzeit (Wien 1931). *Nature* 127/3214: 843–845.
1933 The Old Stone Age. A Study of Palaeolithic Times. London: Cambridge University Press.

Childe, Vere Gordon
1931 Review O. Menghin, Weltgeschichte der Steinzeit (Wien 1931). *The Antiquaries Journal* 11/3: 296–300.
1934 Translation of Minister Dr. Frick "The Teaching of History and Prehistory in Germany." *Nature* 133: 298–299.

1935 Review H. F. K. Günther, Die nordische Rasse bei den Indogermanen Asiens (München 1934). *Antiquity* 9/34: 235–236.
1936 The Antiquity of Nordic Culture. In: Wilhelm Koppers (ed.), Die Indogermanen- und Germanenfrage. Neue Wege zu ihrer Lösung; pp. 517–530. Salzburg, Leipzig: Pustet [*Wiener Beiträge zur Kulturgeschichte und Linguistik* 4]

Diaz-Andreu, Margarita
2009 Childe and the International Congresses of Archaeology. *European Journal of Archaeology* 12: 91–122.

Dostal, Walter
2002 Von der Ethnologie zur Sozialanthropologie. Das Werden einer jungen Wissenschaft in Österreich. In: Karl Acham (ed.), Geschichte der österreichischen Humanwissenschaften; pp. 415–464. Wien: Passagen. [*Geschichte der Österreichischen Humanwissenschaften* 4]

Friedmann, Ina
2011 Der Prähistoriker Richard Pittioni (1906–1985) zwischen 1938 und 1945 unter Einbeziehung der Jahre des Austrofaschismus und der beginnenden Zweiten Republik. *Archaeologia Austriaca* 95: 7–99.

Fürer-Haimendorf, Christoph
1932 Spuren polynesischer Besiedlung in Australien. *Anthropos* 27: 629–631.
1936 Zur Urgeschichte Australiens. *Anthropos* 31: 1–36, 433–455.
1939 The Megalithic Culture of Assam. In: Frederic Martin Schnitger, Forgotten Kingdoms in Sumatra; pp. 215–222. Leiden: Brill.
1990 Life among Indian Tribes. The Autobiography of an Anthropologist. Delhi, Oxford, New York: Oxford University Press.

Gingrich, Andre
2005 The German-Speaking Countries. In: Frederik Barth, Andre Gingrich, Robert Parkin, and Sydel Silverman, One Discipline Four Ways: British, German, French, and American Anthropology; pp. 64–183. Chicago, London: University of Chicago Press.
2021 Konturen eines Frontwechsels. Christoph Fürer-Haimendorfs Wege vom NS-Sympathisanten zum britischen Regierungs-Ethnologen. In: Andre Gingrich and Peter Rohrbacher (eds.), Völkerkunde zur NS-Zeit aus Wien (1938–1945): Institutionen, Biographien und Praktiken in Netzwerken; pp. 1583–1610. Wien: ÖAW. [*Phil.-hist. Kl., Sitzungsberichte* 913; *Veröffentlichungen zur Sozialanthropologie* 27/3]

Graebner, Fritz
1911 Methode der Ethnologie. Heidelberg: Winters Universitätsbuchhandlung. [*Kulturgeschichtliche Bibliothek* 1]

Günther, Hans Friedrich Karl
1934 Die nordische Rasse bei den Indogermanen Asiens. München: Lehmann.

Haekel, Josef
1956 Zum heutigen Forschungsstand der historischen Ethnologie. In: Josef Haekel, Anna Hohenwart-Gerlachstein, and Alexander Slawik (eds.), Die Wiener Schule der Völkerkunde; pp. 17–90. Horn, Wien: Berger.

Hahn, Eduard
1905 Das Alter der wirtschaftlichen Kultur. Heidelberg: Winters Universitätsbuchhandlung.

Hatt, Gudmund
1919 Notes on Reindeer Nomadism. Publication for the American Anthropological Association. [*Memoirs for the American Anthropological Association* 6]

Heine-Geldern, Robert
1923 Südostasien. In: Georg Buschan (ed.), Illustrierte Völkerkunde. Band 2, pp. 689–968. Stuttgart: Strecker und Schröder.
1928 Ein Beitrag zur Chronologie des Neolithikums in Südostasien. In: Wilhelm Koppers (ed.), Publikation d'Hommage Offerte au P. W. Schmidt; pp. 809–843. Wien: Mechitharisten-Kongregationen-Buchdruckerei.
1932 Urheimat und früheste Wanderungen der Austronesier. *Anthropos* 27: 543–619.
1935 The Archaeology and Art of Sumatra; pp. 305–331. Wien: Verlag des Instituts für Völkerkunde der Universität Wien. [*Wiener Beiträge zur Kulturgeschichte und Linguistik* 3]
1945 Prehistoric Research in the Netherlands Indies (In Memory of P. V. van Stein Callenfels). In: Peter Honig and Frans Verdoorn (eds.), Science and Scientists in the Netherlands Indies; pp. 129–166. New York City: Board for the Netherlands Indies, Surinam and Curaçao.
1954 Das Problem vorkolumbischer Beziehungen zwischen Alter und Neuer Welt und seine Bedeutung für die allgemeine Kulturgeschichte. *Anzeiger der phil.-hist. Klasse der Österreichischen Akademie der Wissenschaften* 91: 343–357.
1955 Herkunft und Ausbreitung der Hochkulturen. *Almanach der Österreichischen Akademie der Wissenschaften* 105: 1–16.

Hermanns, Matthias
1949 Die Nomaden von Tibet. Die sozial-wirtschaftlichen Grundlagen der Hirtenkulturen in Amdo und von Innerasien. Ursprung und Entwicklung der Viehzucht. Wien: Herold.

Immervoll, Victoria, and **Peter Rohrbacher**
2023 Diffusionismus trifft Prähistorie. Vere Gordon Childe (1892–1957) und sein archäologisches und ethnologisches Netzwerk in Wien. *Archaeologia Austriaca* 107: 241–276.

Jacob-Friesen, Karl Hermann
1932 Review O. Menghin, Weltgeschichte der Steinzeit (Wien 1931). *Göttingische gelehrte Anzeigen. Unter der Aufsicht der Gesellschaft der Wissenschaften* 194: 474–479.

Jettmar, Karl
1952 Die Anfänge der Rentierzucht. *Anthropos* 47: 737–766.

Kohl, Philip L., and **José Antonio Pérez-Gollán**
2002 Religion, Politics, and Prehistory. Reassessing the Lingering Legacy of Oswald Menghin. *Current Anthropology* 43/4: 561–586.

Koll, Johannes

2021 Fritz Flor und die Verlockung der Politik: Universität – Heimwehr – Nationalsozialismus. In: Andre Gingrich and Peter Rohrbacher (eds.), Völkerkunde zur NS-Zeit aus Wien (1938–1945): Institutionen, Biographien und Praktiken in Netzwerken; pp. 311–340. Wien: ÖAW. [*Phil.-hist. Kl., Sitzungsberichte* 913; *Veröffentlichungen zur Sozialanthropologie* 27/1)

Koppers, Wilhelm

1931 Review O. Menghin, Weltgeschichte der Steinzeit (Wien 1931). *Anthropos* 26: 223–243.

1934 Die Indogermanenfrage im Licht der vergleichenden Völkerkunde. *Congrès International des Sciences Anthropologiques et Ethnologiques*; pp. 185–187. London: Institut Royal d'Anthropologie.

1935 Die Indogermanenfrage im Lichte der historischen Völkerkunde. *Anthropos* 30: 1–31.

1936 Pferdeopfer und Pferdekult der Indogermanen. Eine ethnologisch-religionswissenschaftliche Studie. In: Wilhelm Koppers (ed.), Die Indogermanen- und Germanenfrage. Neue Wege zu ihrer Lösung; pp. 279–409. Salzburg, Leipzig: Pustet. [*Wiener Beiträge zur Kulturgeschichte und Linguistik* 4]

1951a Der historische Gedanke in Ethnologie und Religionswissenschaft. In: Franz König (ed.), Christus und die Religionen der Erde; pp. 75–110. Wien: Herder. [*Handbuch der Religionsgeschichte* 1]

1951b Das Bild der Vorgeschichte bei Jaspers. *Saeculum* 2: 46–53.

1952a Ethnologie und Prähistorie in ihrem Verhältnis zur Geschichtswissenschaft. *Anzeiger der phil.-hist. Klasse der Österreichischen Akademie der Wissenschaften* 25, Jg. 1951: 399–417.

1952b The "Kulturkreislehre." In: Sol Tax, Loren C. Eiseley, Irving Rouse, and Carl F. Voegelin (eds.), An Appraisal of Anthropology Today; p. 79. Chicago, Illinois: The University of Chicago Press.

1952c Der historische Gedanke in Ethnologie und Prähistorie. *Kultur und Sprache* 9: 11–65.

1953 Zusammenarbeit von Ethnologie und Prähistorie. Ein Beitrag zur Methode beider Wissenschaften. *Zeitschrift für Ethnologie* 78: 1–16.

1957 Das Problem der Universalgeschichte im Lichte von Ethnologie und Prähistorie. *Anthropos* 52: 369–389.

1959 Grundsätzliches und Geschichtliches zur ethnologischen Kulturkreislehre. In: Emil Breitinger, Josef Haekel, and Richard Pittioni (eds.), Beiträge Österreichs zur Erforschung der Vergangenheit und Kulturgeschichte der Menschheit mit besonderer Berücksichtigung Mitteleuropas. Bericht über das Erste Österreichische Symposion auf Burg Wartenstein bei Gloggnitz, 8.–12. September 1958; pp. 110–126. Horn: Berger.

Loeb, Edwin Meyer

1935 Sumatra. Its History and People; pp. 1–304. Wien: Verlag des Instituts für Völkerkunde der Universität Wien. [*Wiener Beiträge zur Kulturgeschichte und Linguistik* 3]

MacAlister, Robert Alexander Stewart

1931 Review O. Menghin, Weltgeschichte der Steinzeit (Wien 1931). *The Irish Naturalists' Journal* 3/9: 201–202.

Macfarlane, Alan, and **Mark Turin**
1996 Obituary: Professor Christoph von Fürer-Haimendorf 1909–1995. *Bulletin of the School of Oriental and African Studies* 59/3: 548–551.

Meheux, Katie
2023 Interactions between British Archaeologists and National Socialism. Pragmatism, Neutrality, Opposition and Compromise. In: Martijn Eickhoff, Daniel Modl, and Katie Meheux (eds.), National-Socialist Archaeology in Europe and its Legacies; pp. 393–417. Cham: Springer.

Menghin, Oswald
1928 Zur Steinzeit Ostasiens. In: Wilhelm Koppers (ed.), Publikation d'Hommage Offerte au P. W. Schmidt; pp. 908–942. Wien: Mechitharisten-Kongregationen-Buchdruckerei.
1931 Weltgeschichte der Steinzeit. Wien: Schroll.
1936 Grundlinien einer Methodik der urgeschichtlichen Stammeskunde. In: Helmut Arntz (ed.), Germanen und Indogermanen. Volkstum, Sprache, Heimat, Kultur; pp. 41–67. Heidelberg: Winters Universitätsbuchhandlung. [*Festschrift für Herman Hirt* 1]

Narr, Karl
1955 Die Interpretation altsteinzeitlicher Kunstwerke durch völkerkundliche Parallelen. *Anthropos* 50: 513–545.

Obermair, Robert
2024 Oswald Menghin. Science and Politics in the Age of Extremes. Oldenbourg: De Gruyter.

Pittioni, Richard
1950 Zum Geleit. *Mitteilungen der Urgeschichtlichen Arbeitsgemeinschaft in der Anthropologischen Gesellschaft in Wien* 1/1.
1952 Prähistorie oder Urgeschichte? Die Stellung der Urgeschichte im Rahmen der Menschheitsforschung. *Anzeiger der phil.-hist. Klasse der Österreichischen Akademie der Wissenschaften* 20, Jg. 1951: 269–291.
1954 Urgeschichte und Völkerkunde. *Archaeologica Austriaca* 14: 78–83.

Pusman, Karl
2008 Die „Wissenschaften vom Menschen" auf Wiener Boden (1870–1959). Die anthropologische Gesellschaft in Wien und die anthropologischen Disziplinen im Fokus von Wissenschaftsgeschichte, Wissenschafts- und Verdrängungspolitik. Wien: LIT. [*Austria: Universitätsgeschichte* 1]

Rebay-Salisbury, Katharina
2011 Thoughts in Circles. "Kulturkreislehre" as a Hidden Paradigm in Past and Present Archaeological Interpretations. In: Benjamin W. Roberts and Marc Vander Linden (eds.), Investigating Archaeological Cultures: Material Culture, Variability, and Transmission; pp. 41–60. New York: Springer.

Rohrbacher, Peter
2021 Pater Wilhelm Koppers im Exil, 1938–1945. In: Andre Gingrich and Peter Rohrbacher (eds.), Völkerkunde zur NS-Zeit aus Wien (1938–1945): Institutionen, Biographien und Praktiken in Netzwerken; pp. 1489–1528. Wien: ÖAW. [*Phil.-hist. Kl., Sitzungsberichte* 913*; Veröffentlichungen zur Sozialanthropologie* 27/3]

Schmidt, Wilhelm
1910 Die Stellung der Pygmäenvölker in der Entwicklungsgeschichte des Menschen. Stuttgart: Strecker & Schröder.
1913 Kulturkreise und Kulturschichten in Südamerika. *Zeitschrift für Ethnologie* 45: 1014–1124.
1915–1916 Totemismus, viehzüchterischer Nomadismus und Mutterrecht. *Anthropos* 10–11: 586–610.
1935 Rasse und Volk. Ihre allgemeine Bedeutung ihre Geltung im deutschen Raum. Zweite, völlig umgearbeitete Auflage. Salzburg, Leipzig: Pustet.
1937 Handbuch der Methode der kulturhistorischen Ethnologie. Mit Beiträgen von Wilhelm Koppers. Münster: Aschendorffsche Verlagsbuchhandlung.
1942 Völkerkunde und Urgeschichte in gemeinsamer Arbeit an der Aufhellung ältester Menschheitsgeschichte. *Mitteilungen der Naturforschenden Gesellschaft in Bern* (1941): 27–72.
1951 Zu den Anfängen der Herdentierzucht. *Zeitschrift für Ethnologie* 76: 1–41, 201–204.

Schmidt, Wilhelm, and **Wilhelm Koppers**
1924 Völker und Kulturen. Regensburg: Habbel. [*Der Mensch aller Zeiten* 3]

Schnitger, Frederic Martin
1937a Ein Beitrag zur Archäologie und Kulturgeschichte Sumatras. Dissertation, Universität Wien.
1937b The Archaeology of Hindoo Sumatra. *Internationales Archiv für Ethnographie*, Bd. 35, Supplement. Leiden: Brill.
1939 Forgotten Kingdoms in Sumatra. Leiden: Brill.

Smolla, Günter
1953 Gab es eine prälithische Periode in der Kulturgeschichte der Menschheit? *Tribus. Jahrbuch des Linden-Museums* 2–3: 75–103.

Urban, Otto
2021 Ein Prähistoriker und Unterrichtsminister in der NS-Zeit. Oswald Menghin und die „Kulturkreislehre" von Pater Wilhelm Schmidt. In: Andre Gingrich and Peter Rohrbacher (eds.), Völkerkunde zur NS-Zeit aus Wien (1938–1945): Institutionen, Biographien und Praktiken in Netzwerken Wien; pp. 231–293. Wien: ÖAW. [*Phil.-hist. Kl., Sitzungsberichte* 913; *Veröffentlichungen zur Sozialanthropologie* 27/1]

Vajda, László
1968 Untersuchungen zur Geschichte der Hirtenkulturen. Wiesbaden: Harrassowitz [*Veröffentlichungen des Osteuropa-Institutes München* 31]

Veit, Ulrich
2013 Diffusionism, Hyperdiffusionism, Kulturkreise. In: R. Jon McGee and Richard L. Warms (eds.), Theory in Social and Cultural Anthropology. An Encyclopedia; pp. 187–191. Los Angeles, London: Sage.

Wernhart, Karl Rudolf
2022 Gedanken zur Entstehung der Ethnologie als Forschungs- und Lehrdisziplin in Wien. Die Bedeutung empirischer wie historischer Ethnologie versus imperialistische katholische Lehr- und Kirchenpolitik. *Mitteilungen der Anthropologischen Gesellschaft in Wien* 151–152: 171–192.

Wölfel, Dominik Josef
1942 Die Hauptprobleme Weißafrikas. *Archiv für Anthropologie und Völkerforschung und kolonialen Kulturwandel* 27: 89–140.

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