Conceptualising 'Cultural Landscape Commons': Retracing Ecological Thinking from the Swiss Alpine Landscape to Social-Ecological Systems

Nicole de Lalouvière

Electronic version

URL: <https://journals.openedition.org/rga/8389>

DOI: 10.4000/rga.8389

ISSN: 1760-7426

This article is a translation of:

Conceptualiser les « paysages culturels en commun » : reconstituer l'évolution de la réflexion écologique, des études du paysage alpin suisse jusqu'aux systèmes socio-écologiques - URL : <https://journals.openedition.org/rga/8414> [fr]

Publisher:

Association pour la diffusion de la recherche alpine, UGA Éditions/Université Grenoble Alpes

Electronic reference

Nicole de Lalouvière, "Conceptualising 'Cultural Landscape Commons': Retracing Ecological Thinking from the Swiss Alpine Landscape to Social-Ecological Systems", *Journal of Alpine Research | Revue de géographie alpine* [Online], 109-1 | 2021, Online since 08 May 2021, connection on 08 December 2022. URL: <http://journals.openedition.org/rga/8389> ; DOI: <https://doi.org/10.4000/rga.8389>

This text was automatically generated on 8 December 2022.

Creative Commons - Attribution-NonCommercial-NoDerivatives 4.0 International - CC BY-NC-ND 4.0
<https://creativecommons.org/licenses/by-nc-nd/4.0/>

Conceptualising 'Cultural Landscape Commons': Retracing Ecological Thinking from the Swiss Alpine Landscape to Social-Ecological Systems

Nicole de Lalouvière

- 1 The cultural landscape of the Alps has been shaped by the commons and their institutions, which for hundreds of years, governed alpine pastures, forests, and water systems. Among these, the traditional irrigation systems of Canton Valais in Switzerland (also named *bisses*, *Suonen*, or *Wasserleitungen*) stand out as a unique cultural landscape, expressed through both tangible and intangible aspects (Société d'histoire du Valais romand, 1995, 2011). The *bisses* are employed here as a preeminent example of both a cultural landscape and longstanding commons. They illustrate how intertwined these two notions are. Yet, within scholarly research, 'cultural landscapes' and the 'commons' remain divided in spite of the complex challenges faced by the *bisses* related to a more diverse economy, increasing water demands, and climate change (Crook, 1999, 2001).
- 2 In response to such issues, foremost alpine geographer Werner Bätzing specifically calls for new research to close the gap between ethnology/history of law and the environmental sciences (Bätzing & Rougier, 2005: 487). Since then, meaningful contributions to the study of alpine cultural landscapes have been made in historical geography (Dodgshon, 2019) and environmental history (Mathieu, 2019). Within the study of the *bisses*, research is united through the shared ambition of identifying factors of resilience and adaptability of this system of commons. The *bisses* as a landscape is understood as both a resource and a component of communal governance (Schweizer, Rodewald, Liechti, & Knoepfel, 2014). The concept of 'landscape commons' has been put forth as one that ought to account for multiple landscape values—namely

use, existence (e.g., aesthetic) and intrinsic values (Gerber, Hess, 2017), thereby bridging the science/humanities divide. This paper is an attempt to establish a conceptual framework defining the notion of 'cultural landscape commons' in order to better address the specific issues such landscapes face today. I suggest that the nature-culture dichotomy stands at the root of the notion of 'cultural landscape'. It is also latent within current approaches to the study of the commons, including the social-ecological systems framework (SES).

- 3 The drawing of a strict boundary between nature and culture stems from the modern sciences of the Enlightenment, producing what anthropologist Philippe Descola has coined the ontology of 'Naturalism' (Descola, 2013). The notions of nature and culture have become inseparable in the Alps, where evidence of the anthropization of the landscape reaches back thousands of years. It is so widespread that hardly any 'natural landscapes' remain. Therefore, the notion of 'cultural landscape' in and of itself increasingly questions the relevance of the nature-culture divide.
- 4 According to geographer Lesley Head, "[t]here are few more deeply embedded common senses in Western thought than the various manifestations of the nature-culture dichotomy" (Head, 2012: 76). Head retraces the history of the idea of 'cultural landscape', covering its various definitions, from the Old and New World, Scandinavia, Germany, and the Anglo-American viewpoint. She also highlights how the notion of 'social-ecological systems' is constituted through an often implicit, oppositional conception of nature and culture. I suggest to draw from her comprehensive and in-depth review of these notions to address the 'nature-culture' binary from two standpoints: first, through the influence of ecological thinking within the study of alpine cultural landscapes; then in the manifestation of this divide within commons scholarship and the SES framework.
- 5 This inquiry begins with a selective historical overview of early ethnological and anthropological scholarship on the cultural landscape of the Swiss Alps, culminating in Robert Netting's foundational case study of communal life in the village of Toerbel in Valais. The core themes that emerge from this initial review are translated into specific questions related to ecological thinking within commons studies, in particular as they are currently addressed through SES and closely-related approaches. A critical analysis reveals the potentials of differing approaches from complexity studies, New Institutional Political Ecology, and the historical study of change dynamics in the commons over the *longue durée*.

Cultural landscapes as commons: from environmental determinism to social-ecological systems

- 6 The first part of this paper provides an overview of how ecological thinking shaped the study of Swiss cultural landscapes. They were first interpreted through the lens of environmental determinism in the work of folklorist Richard Weiss. This approach came to be questioned in the following generation of ethnologists exemplified by Arnold Niederer, who emphasized transition and change rather than a static view of mountain culture within which the cultural landscape was a direct product of environmental factors. In the 1970s, the emerging field of cultural ecology, an early systems approach, took a strong interest in how Swiss cultural landscapes were managed as commons. Research led by anthropologist Robert Netting on communal life

in the Swiss Alps stands out through its study of common resources and the associated cultural landscape as a dynamic ecosystem.

Swiss cultural landscapes: from a static view to transition and change

- 7 While folklore studies disappeared in other European countries due to their association with fascist ideology, in Switzerland, the interwar and post-war years saw the production of solid bodies of work, notably from folklorist Richard Weiss. The magnum opus *Atlas der schweizerischen Volkskunde* [Atlas of Swiss Folklore] (Geiger, Weiss, & Escher, 1950) maps social customs, underscoring the importance of the environment as a factor of cultural specificity. In *Häuser und Landschaften der Schweiz* [Buildings and Landscapes of Switzerland], Weiss classifies alpine landscape types based on the relations between Man and Nature. He draws clear associations between physical landscape attributes, construction materials and techniques, building and settlement forms, type of economy, and even political and cultural mindset (2017 [1959]: Fig. 97).
- 8 Arnold Niederer, disciple and successor to Richard Weiss at the ethnology chair at the University of Zurich, implies in his European overview of “collectivism and individualism” that the alpine environment might be a determining factor in the existence of collective customs. Indeed, he argues that collective work is prevalent in the alpine parts of Italy, while it gradually diminishes as one moves southward (Niederer, 1995). However, more broadly, Niederer rejects the idea of static culture and distances himself from environmental determinism. Instead, transition and change are emphasized, thereby anticipating much more dynamic conceptions of cultural landscapes (Niederer & Anderegg, 1993).

Cultural ecology: an early systems approach to cultural landscapes commons

- 9 Niederer would become one of the links between Swiss ethnology and the emergent field of ‘cultural ecology’, founded among others by American anthropologist Robert Netting. Indeed, Niederer helped Netting locate an appropriate site for his field work in Switzerland in the 1970s. Toerbel (Upper-Valais) was chosen in large part for its well-kept village archives. These would enable Netting to employ historical demography to reconstruct three hundred years of cultural adaptation to the natural environment in a closed alpine community:

“In an alpine situation where environmental parameters of altitude and topography largely determine agricultural potential, where technology is essentially unchanging, and where community boundaries have remained fixed for a long period of time, the maintenance of a single integrated system of communal and individual tenure suggests an ecological interpretation.” (Netting, 1996: 221)
- 10 Netting views local culture and the natural landscape as co-constitutive entities, with the environment posing certain limitations, but not entirely dictating a community’s fate. Environmental determinism thus does not suffice to explain centuries of continuity and change in the face of various destabilizing factors. From the outset, Netting recognizes that there is no such thing as a ‘natural landscape’ in the Alps. Toerbel is described in *Balancing on an Alp* as a cultural landscape within which “waters

have been channelled, garden patches retained by terrace walls, soil patiently tilled and fertilized until everything but the cliffs appear ordered and domesticated” (Netting, 1981: 3). The publication incorporates the traditional topics of anthropology—inheritance, kinship and marriage, economic and spatial order—into an early systems approach. Using early computers and applying statistical methods, he tracks a wide array of variables to build a case for how human culture has adapted over three centuries. He concludes that Toerbel performed like an ‘ecological niche’, reaching equilibrium through sensitivity to both natural and social factors (Netting, 1996: 229). Toerbel carefully balanced its own population with available resources through demographic, cultural and technological means to establish itself as a self-sufficient and stable settlement. Among the institutional mechanisms used to achieve this state of equilibrium, the commons feature prominently.

- 11 Toerbel was founded as a closed corporate community; its boundaries were formed by customary law rather than territorial ones. Communal rights were established as the core of the settlement as early as 1483, when twenty-two of its residents convened in Visp to form a collective (*Gemeinschaft*). Its aim was to regulate the use and curtail exploitation of the alp, wastes, and forests by foreigners (*Fremde*). Notably, the ownership of landed property did not necessarily entail any communal rights (*genossenschaftliches Recht*), nor did it include irrigation shares which were often essential to render the land productive. Communal tenure came to structure most aspects of a household’s socio-economic life, impacting parcel size and distribution, property of buildings and storage space, number of livestock, and access to irrigation waters.
- 12 One of Netting’s main insights was the inter-dependence of private and corporate land holdings within a communal system. This combination of property regimes was crucial to making the best use of available resources, in particular arable land. Netting observed that communal property tended to arise out of a need for collective means of exploitation (labour and capital) in large extensive areas which produced less frequent, and less dependable yields (Netting, 1981, 69). Rather than competition between communal and private land tenure, Netting found long-term co-existence of and these landscape management practices. In Toerbel, he concludes that “land use by and large determines land tenure” (Netting 1996: 221), demonstrating how natural and cultural components of the landscape commons form a ‘system’.

The ‘ecosystemic fallacy’; or how to define a closed system?

- 13 Netting’s study of Toerbel establishes the alpine cultural landscape as a dynamic and complex system. Yet, the assertion that the community functioned as a small-scale ecological ‘niche’ is questionable. This would require that the village be defined as a closed system. Netting later returned to his assessment of Toerbel as a “closed corporate community” and admitted he may have fallen prey to the “ecosystemic fallacy” (Netting, 1984: 225). In portraying the community as an “island in the sky”, he had largely failed to consider “flows of goods and money” that linked Toerbel to the wider world and allowed it to survive as a seemingly closed system (Netting, 1984: 235). He suggested that future exogenous forces (external to the system or ‘niche’) would need to be acknowledged: “changes in technology or economic organization might alter

the present balance of private and communal right to agree with new kinds of land use" (Netting, 1996: 229).

- 14 In the age of globalisation and the Anthropocene, Netting's idea that a small village in the Alps might be considered a 'niche', separate and protected from global forces, may seem rather quaint. Nonetheless, the issue raises an important question: Where does one draw system boundaries around cultural landscape commons? These boundaries, in turn, determine which forces are considered endogenous or exogenous to the system, and establish the scale of study. Netting's contribution to the field of cultural ecology already points to some of the limitations of ecological thinking for the study of cultural landscape commons, most of which re-emerge in the analysis of new approaches in the following section.

Cultural landscape commons as social-ecological systems: SES framework and new approaches

- 15 The second part of this paper addresses the issues raised by the study of cultural landscape commons as ecological system boundaries, endogenous/exogenous forces, and scales of inquiry. These are taken-up to some degree by political scientist Elinor Ostrom in *Governing the Commons* (1990), a theoretical work and expansive review of empirical case studies (including Netting's research on communal tenure in Toerbel), through which she established eight "Design principles illustrated by long-enduring CPR [Common-Pool Resource] institutions" (Ostrom, 1990: 90). Much scholarship within the 'Ostrom School' has dedicated itself to in-depth critical assessment of these principles (Cox, Arnold, & Villamayor Tomás, 2010). I propose to consider the following selection of principles:
- 1. "Clearly defined boundaries (...)
 - 2. Congruence between appropriation and provision rules and local conditions (...)
 - For CPRs that are parts of larger systems:
 - 8. Nested enterprises (...)" (Ostrom, 1990: 90)
- 16 The terms "clearly defined boundaries", "local conditions" and "larger systems" point to ongoing questions previously raised in the first part of this paper through the study of cultural landscape commons, namely:
- How to define a bounded system?
 - How to differentiate endogenous and exogenous forces?
 - What are the relevant spatiotemporal scales of analysis?
- 17 These questions may be reconsidered through the SES framework, and in particular, through new perspectives from New Institutional Political Ecology (NIPE), complexity studies, and an eco-evolutionary approach to the historical analysis of dynamic change.

System boundaries, local conditions, and scales of SES

- 18 In the decades that followed Ostrom's ground-breaking publication *Governing the Commons*, commons theory expanded its focus on institutional design to include influences from ecological thinking, culminating in the analysis of social-ecological systems. The aim of the SES framework is to describe the relational dynamics between governance and natural resource systems (Ostrom, 2009). The framework acknowledges

the impact of cultural forces on the environment and how, in turn, the environment imposes limitations on the institutions that govern common-pool resources.

- 19 SES scholarship is particularly concerned with resilience thinking, sustainability, and robustness (Anderies, Janssen, & Ostrom, 2004; Janssen, Anderies, & Ostrom, 2007). Yet, as the term 'social-ecological system' makes clear, this new framework reinstates rather than transcends the nature-culture divide. Indeed, SES identifies two separate sets of external forces: "social, economic, and political settings" and "related ecosystems". Within the SES itself, four subsystems are presented: on the social side, "Governance System" and "Actors"; on the ecological side, "Resource System" and Resource Units. These subsystems undergo "Interactions" that result in "Outcomes" (Ostrom, 2009: 420).
- 20 The spatial and temporal scales of analysis of these interactions and outcomes tend to remain within the realm of 'social, economic, and political settings' rather than those of the 'related ecosystems'. For the most part, commons case studies have focused on locally-bound systems without offering insight into how these may 'scale-up'. In response to this deficiency, three levels of analysis are put forward:
 1. "individual human behavior
 2. the microsituation including the immediate variables impinging on individuals ...
 3. the broader social-ecological context." (Poteete, Janssen, & Ostrom, 2010: 215)
- 21 This framework thus locates the individual at the lower level (smaller scale end) and the social-ecological forces as 'context' (larger scale end). It rests upon an anthropocentric attitude to the commons wherein the human is central and ecological concerns are confined to high-level considerations.

Defining system boundaries in complexity studies

- 22 Within the branch of anthropology concerned with complex systems, the issue of system boundaries is addressed by the work of Stephen Lansing. In his research on Bali's irrigated rice terraces, Lansing carries forth cultural ecology's work on communal irrigation systems, such as Robert Netting's research in Toerbel. A distinct call-and-response exists between the two scholars. While Netting declared Toerbel's irrigation network a "system of ordered anarchy" (1974), Lansing proclaims: "Perfect order: recognizing complexity in Bali" (2006). Netting had described local adjustments amongst appropriators in the irrigation network of Toerbel, and Lansing finds that farmers in Bali operate in a similar manner. Every year, they adjust their planting and irrigation schedule by matching the behaviour of their direct neighbours with a more successful harvest. Members of *subaks* (farmer collectives that manage rice terraces and their irrigation systems) are "agents engaged in a process of coadaptation, in which adaptive moves by individuals have consequences for their neighbors." In this sense, the entire irrigation network functions as a "complex adaptive system" (Lansing, 2006: 83).
- 23 As previously discussed, Netting himself recognized that his assessment of Toerbel as a 'niche' with clear system boundaries was problematic. Nonetheless, "human niche construction" remains a topic of research within anthropology. In their study of the Balinese irrigation commons, Lansing and Fox cast aside the nature-culture divide by comparing humans to beavers or termites since all three species participate in the

“active modification of their habitat” (Lansing & Fox, 2011: 927). Through genetic analysis and simulation modelling, the study supports the idea that the Balinese irrigation system was built through trial and error rather than centralized, top-down design. National-level agricultural policy, by abandoning the traditional irrigation calendar, broke local-level feedback loops between appropriators and the environment. This irrigation calendar is one of the cultural landscape commons’ main institutional tools, put forth by the authors to be a cultural expression of the Darwinian process of ‘human niche construction’. In this sense, the authors apply a biological theory to the analysis of Bali’s cultural landscapes commons, drawing close together the social and ecological aspects of the system.

The ‘scale problem’, and distinguishing endogenous from exogenous forces

- 24 The case studies published in *Governing the Commons* describe systems of up to a few hundred users. This emphasis on ‘local conditions’ is pointed out by geographer David Harvey, who underlines the “scale problem” of commons theory (Harvey, 2011: 106). Harvey argues that local solutions may not be adapted to larger-scale commons or be able to address global issues such as the environmental crisis. Within more recent commons scholarship, the primacy of the ‘local’ is questioned further, and a multi-level approach is encouraged instead (Schweizer, 2018).
- 25 The relative importance of the local scale is also taken-up by scholars subscribing to ‘New-Institutionalism’. Anthropologist Tobias Haller promotes New Institutional Political Ecology (NIPE)—a fusion of Political Ecology and New Institutionalism—to tackle ‘glocal’ systems. Haller presents the case of a land dispute in the Kafue Flats (Zambia), where a former communal pasture is intended to be transformed by a new irrigation scheme supported by global investors and the World Bank’s neo-liberal policies (Haller, 2019). The case highlights the conflicts and interrelations between local ancestral commons and global forces. It supports the argument that NIPE is “helpful in understanding how mechanisms of institutional change unfold in the interrelation of external and internal factors to a local community” (Haller, Breu, Rohr, De Moor, & Znoj, 2019: 7). Other contributions to *The Commons in a Glocal World* build a solid response to the ‘scale problem’. From a range of disciplines, they tackle issues such as transnational conservation, large-scale land acquisition, and connections between land grabbing and water grabbing. NIPE attempts to grasp both the endogenous and exogenous forces that shape ‘the commons in a glocal world’.

Change dynamics across spatiotemporal scales

- 26 While the two previously described approaches focus on the spatial boundaries and scales of the commons, I now turn to commons scholarship that also addresses temporal scales. Historian Tine de Moor considers the commons over the *longue durée*, through research on change and adaptation processes. Although De Moor acknowledges that historical European commons operated at a local level, and thus may not offer scalable solutions for global commons resources, a better understanding of the temporal dynamics of commons institutions (even local ones) can yield valuable insight, including for global-scale resource management problems:

“The speed of technological, economic, political, and environmental changes in our current societies and the need of anticipating reactions to those changes makes it indispensable to gain deeper knowledge about the mechanisms behind the processes of institutional change, resilience and failure of the commons—all of them processes unfolding over the (very) long term.” (De Moor, 2019: 330)

- 27 The ‘Common Rule(s)-Project’, for instance, traces the history of European commons over seven centuries through a database of over five thousand individual rules. The project demonstrates how commons research needs to operate at the multi-secular temporal scale to reveal the dynamics of resilience in the commons (for an outline of the method, see De Moor, Laborda-Pemán, Lana-Berasain, Weeren, & Winchester, 2016). Although the data collected to study ‘Institutions for Collective Action’ — rules, regulations, and decision-making processes — are institutional, thus social rather than ecological in kind, the *longue durée* perspective holds much potential for the study of social-ecological agents within cultural landscape commons. Indeed, ecological landscape systems, whether living or geological, operate over centuries, if not millennia and beyond.
- 28 In more recent work, De Moor participates in interdisciplinary research that adopts an eco-evolutionary perspective and employs a distinctly biological lexicon — “high rate of evolution”, “punctuated equilibrium”, “mass extinction”—to describe change dynamics in the commons (Forsman et al., 2020). ‘Institutions for Collective Action’ are conceptualised as eco-evolutionary: they have a life cycle punctuated by the distinct stages of birth, adaptation, and dissolution. The study relies on data that is ambitious in its breadth (four hundred historical commons of different kinds) and temporal scale (Dutch commons over more than a millennium). However, it also admits that a similar study of contemporary commons might be more challenging due to the difficulty of identifying spatiotemporal connections within evermore large, fragmented, and unstable social networks. Moreover, local changes in institutions would have to be linked to larger environmental forces, at the scale of what the SES framework names the ‘the broader social-ecological context’.

Conclusions: toward a comparative, multi-scalar, and eco-evolutionary conception of cultural landscape commons

- 29 The study of “cultural landscapes commons” in the Swiss Alps is heavily influenced by ecological thinking, which was expressed at its beginnings through ideas related to environmental determinism. Later strands of ecological thinking were developed through research into dynamic systems and cultural ecology. These ideas were precursors to the currently dominant concerns within commons scholarship at large. Indeed, commons theory, as established by Ostrom in the 1990s, also experienced the growing influence of ecological thinking, culminating in the social-ecological systems (SES) framework.
- 30 The first part of this paper retraces the fundamentals of ecological thinking in the study of “cultural landscapes commons” in the Swiss Alps. It shows how the research that helped to establish this notion contained within it strands of ecological thinking expressed through ideas related to environmental determinism, dynamic systems, and cultural ecology. These ideas were precursors to the currently dominant concerns

within commons scholarship at large. Indeed, commons theory, as established by Ostrom in the 1990s, also experienced the growing influence of ecological thinking, culminating in the social-ecological systems (SES) framework.

31 Cultural landscape commons, like social-ecological systems, carry within them the nature-culture dichotomy. As such, they need to face similar issues: defining system boundaries, distinguishing endogenous from exogenous forces, and identifying change patterns over multiple and extended spatiotemporal scales. These questions point to a selective overview of new approaches within commons studies offered by (1) complexity studies, (2) New Institutional Political Ecology (NIPE), and (3) the comparative analysis of change dynamics in the *longue durée*. The following reflections are derived from the critical analysis of these three perspectives:

1. The conception of cultural landscape commons as an 'ecological niche' actively incorporates and interrogates the idea of 'system boundaries'. The boundaries of Bali's landscape commons were tested through the implementation of international agricultural policies, which revealed themselves to be highly disruptive to the local irrigation system. Exogenous forces overturned a highly-adaptive system, demonstrating the risks of applying top-down policies to cultural landscape commons. A comparative study could allow the case of Bali to inform Canton Valais in its current endeavour to include its traditional irrigation systems on UNESCO's Intangible Cultural Heritage list.
2. The combination of New Institutionalism and Political Ecology offers a compelling approach to the study of social-ecological systems through both endogenous and exogenous forces. It provides a multi-scalar framework through which to integrate both local and global scales of analysis to understand cultural landscape commons. If these scales were expanded to include those of biological as well as social systems, NIPE might more forcefully address the nature-culture divide still latent within it.
3. Bridging the social and the ecological in commons research demands that we consider whether change dynamics at one timescale (e.g., biological life cycles) may be relevant at another (e.g., institutional changes). This requires a comparative analysis of large numbers of cases over the *longue durée*, an approach that challenges the established timescales of study in many disciplines within the field of commons studies. The adoption of an eco-evolutionary perspective to interpret changes in commons institutions over long timescales illustrates how the spatiotemporal nature of social-ecological systems might come to be grasped.

32 Through an ongoing engagement with some of the most critical questions raised by the integration of ecological thinking within commons theory, these approaches offer means of rethinking the relation between nature and culture. They outline a conceptual framework for 'cultural landscape commons' based on a comparative, multi-scalar, and eco-evolutionary approach. This calls for scholars to continue current efforts to lead comparative analyses of cases, in spite of possible historical, scalar, and social-ecological variability. Multi-scalar studies of the commons need to go beyond research into multi-level governance and nested organisations (imbrication) in order to fully integrate ecological scales, which is essential to the study of landscapes. Finally, and through a synthesis of both of these efforts, an eco-evolutionary approach would promote the comparative analysis of cases across spatiotemporal scales, intersecting social and ecological aspects of the commons, thus collapsing the nature-culture divide.

33 The aim of this historical and theoretical analysis is to enable the concept of 'cultural landscape commons' to gain in relevance within commons scholarship and its many related fields, ranging from resource management to landscape planning and

environmental law. Through a continued critical integration of landscape studies, commons theory, and ecological thinking, the hope is for unique conceptual lexicons, alternative histories, and new analytical models to be generated. While remaining at the conceptual core of 'cultural landscapes' and 'social-ecological systems', the continued questioning of the nature-culture dichotomy is generating a field of tension oriented toward much larger ontological and epistemological shifts across the humanities and natural sciences. Within these shifts, the discourse surrounding 'cultural landscape commons' would provide an expanded platform supporting compelling interdisciplinary debate.

BIBLIOGRAPHY

- Anderies J. M., Janssen M. A., Ostrom E., 2004.– “A Framework to Analyze the Robustness of Social-Ecological Systems from an Institutional Perspective”, in *Ecology and Society*, 9(1): 18 [online]. <https://www.jstor.org/stable/26267655>.
- Bätzing W., & Rougier H., 2005.– *Les Alpes : Un foyer de civilisation au coeur de l'Europe*. LEP Editions Loisirs et Pédagogie.
- Cox M., Arnold G., & Villamayor Tomás S., 2010.– “A Review of Design Principles for Community-Based Natural Resource Management”, in *Ecology and Society*, 15(4): 38 [online]. www.ecologyandsociety.org, doi:10.5751/ES-03704-150438.
- Crook D., & Jones A. M., 1999.– “Traditional irrigation and its importance to the tourist landscape of Valais, Switzerland”, in *Landscape Research*, 24(1), pp. 49–65. <https://doi.org/10.1080/01426399908706550>
- Crook D. S., 2001.– “The Historical Impacts of Hydroelectric Power Development on Traditional Mountain Irrigation in the Valais, Switzerland”, in *Mountain Research and Development*, 21(1), pp. 46–53. [https://doi.org/10.1659/0276-4741\(2001\)021\[0046:THIOHP\]2.0.CO;2](https://doi.org/10.1659/0276-4741(2001)021[0046:THIOHP]2.0.CO;2)
- De Moor T., 2019.– “From historical institution to pars pro toto”, in B. Hudson, J. Rosenbloom, & D. Cole (Eds.), *Routledge Handbook of the Study of the Commons*, Routledge, pp. 319–333. <https://doi.org/10.4324/9781315162782>
- De Moor T., Laborda-Pemán M., Lana-Berasain J. M., Weeren R. van, & Winchester A., 2016.– “Ruling the Commons. Introducing a new methodology for the analysis of historical commons”, in *International Journal of the Commons*, 10(2), pp. 529–588. <https://doi.org/10.18352/ijc.760>
- Descola P., 2013.– *Beyond Nature and Culture*. University of Chicago Press. <http://ebookcentral.proquest.com/lib/ethz/detail.action?docID=3038515>
- Dodgshon R., 2019.– *Farming Communities in the Western Alps, 1500–1914: The Enduring Bond*. Springer International Publishing. https://doi.org/10.1007/978-3-030-16361-7_2
- Forsman A., Moor T. D., Weeren R. van, Bravo G., Ghorbani A., Dehkordi M. A. E., & Farjam M., 2020.– “Eco-evolutionary perspectives on emergence, dispersion and dissolution of historical Dutch commons”, in *PLOS ONE*, 15(7), e0236471. <https://doi.org/10.1371/journal.pone.0236471>

Geiger P., Weiss R., & Escher W., 1950.– *Atlas der schweizerischen Volkskunde = Atlas de folklore suisse*. Schweizerische Gesellschaft für Volkskunde.

Gerber J.D., Hess G., 2017.– “From Landscape Resources to Landscape Commons: Focusing on the Non-Utility Values of Landscape”, in *International Journal of the Commons*, 11(2), pp. 708–32.

Haller T., 2019.– “Towards a new institutional political ecology: How to marry external effects, institutional change and the role of power and ideology in commons studies”, in T. Haller, T. Breu, T. de Moor, C. Rohr, & H. Znoj (eds.), *The commons in a glocal world: Global connections and local responses*, Routledge, Taylor & Francis Group, pp. 90–120.

Haller T., Breu T., Moor T. de, Rohr C., & Znoj H., 2019.– “Introduction Commons in a ‘glocal’ world”, in T. Haller, T. Breu, T. D. Moor, C. Rohr, & H. Znoj (Eds.), *The commons in a glocal world: Global connections and local responses*, Routledge, Taylor & Francis Group, pp. 1–20.

Harvey D., 2011.– “The future of the commons”, in *Radical History Review*, 2011(109), pp. 101–107. <https://doi.org/10.1215/01636545-2010-017>

Head L., 2012.– “Conceptualising the human in cultural landscapes and resilience thinking”, in C. Bieling & T. Plieninger (eds.), *Resilience and the Cultural Landscape: Understanding and Managing Change in Human-Shaped Environments*, Cambridge University Press, pp. 65–79. <https://doi.org/10.1017/CBO9781139107778.006>

Janssen M. A., Anderies J. M., Ostrom E., 2007.– “Robustness of Social-Ecological Systems to Spatial and Temporal Variability”, in *Society & Natural Resources*, 20(4), pp. 307–22. <https://doi.org/10.1080/08941920601161320>.

Lansing J. Stephen, & Fox K. M., 2011.– “Niche construction on Bali: The gods of the countryside”, in *Philosophical Transactions of the Royal Society B: Biological Sciences*, 366(1566), pp. 927–934. <https://doi.org/10.1098/rstb.2010.0308>

Lansing J. S., 2006.– *Perfect order: Recognizing complexity in Bali*. Princeton University Press.

Mathieu J., 2019.– *The Alps: An environmental history* (R. Hadshar, Trans.; English edition). Polity Press.

Netting R. McC., 1974.– “The System Nobody Knows: Village Irrigation in the Swiss Alps”, in Theodore E. Downing & R. McC. Adams (Eds.), *Irrigation's impact on society: Papers [presented at the] symposium of the Southwestern Anthropological Association in Long Beach, California 1972: vol. nr. 25*, University of Arizona Press, pp. 67–75.

Netting R. McC., 1981.– *Balancing on an alp: Ecological change and continuity in a Swiss mountain community*. Cambridge University Press.

Netting R. McC., 1984.– “Reflections on an Alpine village as ecosystem”, in Emilio F. Moran (Ed.), *The ecosystem concept in anthropology* (Vol. 92), Westview Press, pp. 225–235.

Netting R. McC., 1996.– “What Alpine Peasants Have in Common: Observations on Communal Tenure in a Swiss Village”, in D. G. Bates & S. H. Lees (Eds.), *Case Studies in Human Ecology*, Springer US, pp. 219–231. https://doi.org/10.1007/978-1-4757-9584-4_9

Niederer A., 1995.– “Collectivisme et individualisme dans différentes régions européennes et le nouveau communautarisme”, in *Schweizerisches Archiv für Volkskunde = Archives suisses des traditions populaires*, 91(2), pp. 209–218. <https://doi.org/10.5169/seals-117941>

Niederer A., & Anderegg, K., 1993.– *Alpine Alltagskultur zwischen Beharrung und Wandel : Ausgewählte Arbeiten aus den Jahren 1956 bis 1991*. Haupt.

Ostrom E., 1990.– *Governing the commons: The evolution of institutions for collective action*. Cambridge University Press.

Ostrom E., 2009.– “A General Framework for Analyzing Sustainability of Social-Ecological Systems”, in *Science*, 325(5939), pp. 419–422. <https://doi.org/10.1126/science.1172133>

Poteete A., Janssen M. A., & Ostrom E., 2010.– *Working Together: Collective Action, the Commons, and Multiple Methods in Practice*. University Press.

Schweizer R., 2018.– “Avoiding the Commons Trap: An Exploration of Local Community Governance of Water in Valais, Switzerland”, in C. Bréthaut & R. Schweizer (eds.), *A Critical Approach to International Water Management Trends: Policy and Practice*, Palgrave Macmillan UK, pp. 23–44. https://doi.org/10.1057/978-1-137-60086-8_2

Schweizer R., Rodewald R., Liechti K., & Knoepfel P., 2014.– *Des systèmes d'irrigation alpins entre gouvernance communautaire et étatique = Alpine Bewässerungssysteme zwischen Genossenschaft und Staat* (Vol. 24). Rüegger.

Société d'histoire du Valais romand., 1995.– *Actes du colloque international sur les bisses, Sion, 15-18 septembre 1994* (P. Reichenbach, Ed. ; vol. 70).

Société d'histoire du Valais romand., 2011.– *Actes du colloque international Les bisses : Économie, société, patrimoine* (S. Nahrath & S. Cantinotti, Eds.).

Weiss R., Egli H., Anderegg J.-P., & Weiss J., 2017.– *Häuser und Landschaften der Schweiz* (1. Auflage, Reprint der Erstausgabe aus dem Jahr 1959). Haupt Verlag.

ABSTRACTS

This paper retraces the fundamentals of the 'nature-culture' divide within the study of Swiss alpine 'cultural landscape commons', showing how this notion was shaped by early ecological thinking expressed through environmental determinism, dynamic systems, and cultural ecology. These fields of research are seen as precursors to some of the currently dominant concerns within commons scholarship more broadly: defining system boundaries, distinguishing endogenous from exogenous forces, and identifying change patterns over extended spatiotemporal scales. Recent studies based in resilience thinking and the social-ecological systems (SES) framework reveal promising contributions from complexity studies, New Institutional Political Ecology (NIPE), and the analysis of change dynamics over the *longue durée*. A critical review of this research indicates possible ways forward to establish a conceptual framework for 'cultural landscape commons' based on a comparative, multi-scalar, and eco-evolutionary approach.

Cet article retrace les fondements du dualisme nature/culture présent dans l'étude des « paysages culturels en commun » des Alpes suisses, en démontrant que cette notion a été façonnée par les premières réflexions écologiques présentes dans le déterminisme environnemental, les systèmes dynamiques et l'écologie culturelle. Ces champs de réflexion ont anticipé les préoccupations dominantes de la recherche actuelle sur les communs, c'est-à-dire : la définition des limites d'un système, la distinction des forces endogènes et exogènes et l'identification des processus de changement sur de multiples échelles spatio-temporelles. La place accordée à la résilience et aux systèmes socio-écologiques (*social-ecological systems*, SES) dans de nombreuses études récentes souligne le potentiel des systèmes complexes, de l'écologie politique néo-institutionnaliste (*New Institutional Political Ecology*, NIPE) et de l'analyse des dynamiques de changement sur la *longue durée*. Un examen critique de ces champs de recherche

indique des voies possibles pour établir un cadre conceptuel des « paysages culturels en commun » sur une base comparative, multiscalaire et éco-évolutive.

INDEX

Keywords: cultural landscape, commons, nature-culture, social-ecological systems, resilience

Mots-clés: paysage culturel, biens communs, nature/culture, systèmes sociaux-écologiques, résilience

AUTHOR

NICOLE DE LALOUVIÈRE

Institute of Landscape and Urban Studies (LUS). Department of Architecture D-ARCH. ETH Zurich.
lalouviere@arch.ethz.ch