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# Introduction

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This book furthers reflections engaged in a previous collection on the anthropology of nostalgia (Angé and Berliner 2014), by specifically addressing longings for past forms of life in earthly environments. Ecological nostalgias, or as we call them, ‘eco-nostalgias’, are so pervasive in contemporary societies upset by climate change and the devastation of ecosystems that we believe it deserves to be approached as a singular ethnographic object. Within a modern temporality made of radical revolutions and patrimonial desires for the repetition of the past (Latour 1991: 103), it is no surprise that the major ecological destruction that humans are facing nowadays triggers all sorts of attachments to living organisms that are jeopardised, or already gone.

Let us begin with an example which encapsulates the questions this book explores: agrobiodiversity conservation. All over the globe, a substantial amount of resources and energy is currently being devoted by farmers, scientists and bureaucrats from institutions at all levels, from local NGOs to multinational stakeholders, to curate germplasm from crop plants and their wild relatives. Since the 1970s, Western consortia have started to support gene banks where genetic and phenotypic material is examined and hoarded to ensure their protection. Intended to overcome human hunger in a context of population growth and environmental destruction, the practices involved in seed banking are based on the predicate of ‘genetic erosion’ (Plucknett and Smith 1987).

The emergence of scientific plant breeding in the 1920s provoked germplasm simplification in many parts of the world (Plucknett and Smith 1987: 8), including centres of domestication. It is ascertained that agricultural intensification in Europe and North America has produced significant genetic erosion from the beginning. In these regions pioneering the industrialization of agriculture, maize production instantiates the devastating effect of crop genetic manipulation in the twentieth century. The diffusion of hybrid seeds in the USA is infamous in this regard: it is estimated that, two decades after their introduction, hybrid varieties covered 90 per cent

of the maize fields across the country (Bonneuil and Thomas 2012: 77).

In Asia, it is rice that epitomizes the genetic erosion process. In some places, the so-called green revolution<sup>1</sup> expanded on such a massive scale that it may have wiped out heterogeneity in paddies (Brush 2004: 155).

While scientists had been warning about the dangers of monoculture since the 1930s, it was only during the 1960s that concerns about genetic erosion started to grow. The proceedings of a FAO meeting, released in 1970, was the first substantive publication by plant experts to convey anxiety about crops' biological disappearance. In their introduction, Otto Frankel and Erna Bennett assert that 'it is now generally recognized [that] many of the ancient genetic reservoirs are rapidly disappearing' (1970: 2, quoted in Brush 2004: 156). By 1985, a decade after the media had started to broadcast concerns on biodiversity loss, about half of the world's nations had germplasm conservation infrastructure established or under-way (Plucknett and Smith 1987: 138).

Genetic conservation in this context is not past-oriented, however. To many curators, the purpose of safeguarding biological material is guided by the hope of creating new varieties in the future.<sup>2</sup> Breeders want to keep the material available to develop grains able to cope with the future food shortage that humanity will face. The strategy is enmeshed in a horizon of catastrophe yet to come. It is cast in apocalyptic times, when climate change will have resulted in severe drought and higher temperatures; or when people will be evicted from their land, obliged to cultivate infertile plots in new, unexpected ecosystems.

In this vein, genetic erosion is regarded as a systematic consequence of the integration of high-yielding varieties. These would gradually replace the landraces, despised as less productive according to the criteria of agro-industries (Bonneuil and Thomas 2012). In a report published by the FAO in 1999, ethnobotanist Stephen Brush refuted the universality of the genetic erosion predicate, contending that 'historical experience and fieldwork in different cropping systems seem to suggest that there is no definitive pattern of loss. Replacement has occurred in some areas but not in others'. For instance, Andean potato fields feature an outstanding agrobiodiversity,<sup>3</sup> although improved varieties have been widely introduced in the cordillera. The genetic erosion paradigm thus generalizes the homogenization of seeds as an inevitable outcome of the modernization of cultivation. This model supposes that 'primitive agricultures' were stable before development programmes came to disturb ancient patterns of crop distribution by promoting high-yielding varieties. Seed replacement, however, has been proven for centuries and so-called traditional agriculture is in fact extremely dynamic (Louette, Charrier and Berthaud 1997; Zeven 1999). American botanist Jack Harlan praised landraces as 'bal-

anced populations – variable, in equilibrium with both environment and pathogens and genetically dynamic – ... our heritage from past generations of cultivators. They are the result of millennia of natural and artificial selections’ (1975: 618). The product of continual selections, landraces, are thus anything but frozen in the past.

Considering the conservation of heirloom varieties as an icon of the intertwined construction of global nature and global culture, Franklin stressed that the purity of lines sought in seeds is not a strictly biological project; heirloom varieties are also appreciated as a source of cultural authenticity. As she unravelled the genealogical tropes permeating seed saving in the global nature-culture, she noted that the ‘oldest and most traditional cultural values’ are used to instantiate change and transformation (2000b: 84). Longings for past forms of life are enmeshed in complex and ever-changing spatio-temporalities that the concept of eco-nostalgia is intended to explore.

Seed conservation is only one among a series of contemporary actions meant to resuscitate past ecological connections against experiences of degeneration. Practices as diverse as ‘forgotten vegetables’ revival, herbal medicine, survival camps, rewilding initiatives, lightweight dwellings, ecotourism, urban hives, permaculture or collective gardens are nurtured by representations of a bygone equilibrium. The longings instantiated in these practices rest on the perception of environmental changes that can be gradual or abrupt, dramatic or subtle, wide in scope or locally circumscribed. They engage micro as well as bigger organisms, ecosystems and regions, the whole earth, or even the cosmos. Drawing on an array of ethnographies in the Arctic, Iceland, Mexico, Peru, Malaysia and Mongolia, the contributions to this volume examine the deployment of such eco-nostalgias across continents. We shall see that it is not only multiple life forms that are at stake in these yearnings, but forms of life<sup>4</sup> unfolding in tuber, maize, ice, rock or oil fields.

Above all, this book argues that a notion covering ecological longings is useful to think with. This is justified by the empirical mushrooming of environmental anxieties and the crucial political stakes that lie behind related initiatives. But as much as the concept is accepted as a non-essentialist heuristic device with blurred boundaries, it will also enrich theoretical discussions about nostalgia. In a pioneering text, Dominic Boyer pinned down five necessary ingredients of nostalgia in Eastern Europe. He suggested that it is heteroglossic, indexical, allochronic, symptomatic and oriented toward the future (2010). Following his effort, our own exploration of yearning for earthly flourishing aims at singularizing eco-nostalgias as compared to other types of longings. In particular, this introduction puts forward four propositions. First, eco-nostalgias are spatial and temporal

at the same time. Second, they unfold in natures-cultures. Third, they are critical and creative; or else, and fourthly, they exude imperialist impetus.

### **First Proposition: Eco-nostalgias Are Spatial and Temporal at the Same Time**

Eco-nostalgias help us rethink the links between time and space. The etymology of nostalgia as a regret for a lost home,<sup>5</sup> conveying the sense of a spatial impossibility to return, is well-known. Beside military displacements, traumatic professional migrations were reported by Doctor Hofer in his thesis introducing the neologism in the seventeenth century. During the nineteenth century, however, the spatial dimension was replaced by a temporal one, in line with the celebration of a modernist ideology articulated on a temporality of acceleration, progress and rupture.<sup>6</sup> This semantic shift contrasts with the historical context, since this was a time of major spatial disjunction triggered by the intensification of capitalist economies of exchange and extraction. Previous agricultural enclosures stood out as a turning point in the European peasants' history when attachment to usurped land caused massive riots and social protests. While claims for communal land tenure were despised by elites as 'nostalgia for the past' (Federici 2014: 70), these very same elites favoured other instantiations of conservative eco-nostalgia.<sup>7</sup> Despite such important geographical transfigurations and related affective effusions, the spatial meaning of nostalgia was substituted by a metaphorical one hinging upon temporality: more than a yearning for a lost place, nostalgia began to refer to a vanished time. Thus, addressing eco-nostalgia brings its spatial dimension back to the fore.

Whist eco-nostalgic experiences existed long before an international awareness about massive environmental disasters was raised, human displacements are taking on an unprecedented scope in the twenty-first century. Recent catastrophes have forced populations to flee areas that have become inhospitable, described as 'sacrifice zones' by Naomi Klein (2016). First coined in a 1973 report by the US National Academy of Science in reference to zones where intensive mining eliminates any prospect of productive rehabilitation, this expression was subsequently generalized to designate territories that have been given up in the name of profit and technological progress. Today, these areas extend beyond sites of extraction, through the effect of ubiquitous ecological upheavals. The multiplication of climate refugees raises major concerns and international tensions, and the expulsion of communities as a result of global warming will certainly generate many nostalgists in the future.<sup>8</sup>

Furthermore, eco-nostalgias encompass significantly more traumatic experiences that do not necessarily imply embodied displacement. Under capitalism, intense and widespread ecosystemic transfiguration operates in our surroundings within very short duration. People lose their place without going away from it physically. Mining extraction, nuclear accidents, logging, water contamination, temperature increase or species extinction and invasion transform familiar environments into estranged locations. In this case, the passing of time entails spatial disjunctions that are not related to the endless journeys with which nostalgia has been associated since Homer's Odysseus. As Glenn Albrecht put it, 'environmental damage has made it possible to be homesick without leaving home' (2006). This is corroborated by our stories about Andean potato growers, ice dwellers in the Arctic and Iceland, rainforest inhabitants in Ecuador and in Malaysia alike. This book asks what it means to occupy a place that is shared with jeopardized organisms, haunted by the absence of former non-human life, a biotope experiencing what Ann Stoler lucidly calls 'ruination'.

## **Second Proposition: Eco-nostalgias Unfold in Natures-Cultures**

The core themes addressed by existing anthropological scholarship on nostalgia hover around the formation of social and cultural identities. In this book, however, we argue that a strictly human-centred perspective cannot account for the importance of these yearnings, even less in the ongoing context of climate change and ecological disasters. As our contributors demonstrate, in damaged environments, longings bring together humans, plants, animals, ancestors and a wide array of earthly organisms connected through bodily communication. To many people around the globe, the world is not experienced as a 'nature' ontologically distinct from anthropic sociality, but rather as a configuration of heterogeneous relations involving an array of living creatures (de la Cadena 2015; Descola 2005; Ingold 2000; Strathern 1980). Hence, we think that investigating eco-nostalgias requires delving into nature-cultures (Latour 1991) across multiple settings. Therefore, the exploration of eco-nostalgias demands that we take a multispecies approach encompassing 'the host of organisms whose lives and deaths are linked to human social worlds' (Kirksey and Helmreich 2010: 545; see also Ogden et al. 2013; and Van Dooren et al. 2016). Latourian and Harawayan in its premises, this perspective examines the participation of ontologically diverse actors in the fabric of existence, focusing on embodied experiences and affective engagements within more-than-human assemblages.

In her seminal analysis of dog-human complicity, Donna Haraway scrutinized encounters between ‘companion species’, these cross-species intimate partners tied by an enduring relation that is both instrumental and careful (2008). In the same vein, the intertwining of emotional and instrumental dimensions is beautifully captured by Vinciane Despret and Michel Meuret’s study of cosmo-ecological sheep breeding. They describe how young urbanites in Southern France become shepherds by learning herding practices, such as transhumance, abandoned by most farmers in the quest for agricultural modernization. In this process, humans and sheep jointly discover how to behave in unfamiliar pastures; together they discover how to dwell in unknown mountainous ecosystems. As the authors explain, what is at stake here is not only a matter of producing more and better meat for consumption. ‘These practices cannot be reduced to a livestock economy: shepherds consider herding a work of transformation and ecological recuperation – of the land, of the sheep, of ways of being together’ (2016b: 24). The ethnographic accounts gathered in this volume document nostalgic attachments emerging in interspecies encounters that are also instrumental and careful. Yearning for merry cassava beer festivals (High), pigs and deer proximity (Ellen), collective mountainous journeys (Pitrou), fresh water to bathe in the river bed (Irvine), uncontaminated narwhal meat (Hastrup), or freshly harvested smoked potato (Angé), they all convey a sense of regret for past enjoyments.

Yet they also manifest concerns for others’ discomfort, shedding light on non-humans’ experiences when homes are destroyed, estranged or unreachable.<sup>9</sup> In Thom Van Dooren’s poignant book (2014), we meet little penguins dwelling at the shorelines of the Sydney Harbour, members of the last colony on the Australian mainland. Van Dooren highlights these birds’ perseverance in returning to the same spot to engage in their reproduction work, year after year. His examination of penguins’ forms of life shows that ‘these are specific places, not all interchangeable, but deeply storied, carrying the past experiences of individuals and the generations before them’ (2014: 64). However, an increasing population of pets and their human partners building houses, seawalls and swimming pools has made the shorelines inhospitable for the penguins who now survive at the edge of extinction. They are ‘fatally tied to disappearing or lost places’ (Van Dooren et al. 2016: 66), like many other philopatric<sup>10</sup> animals all over the globe. Their *Umwelt*<sup>11</sup> is becoming uncomfortable, unlivable. In the same vein, Howe’s description of bears’ lethal disorientation, Irvine’s account of weakening trees, and Angé’s study of potato discontent in dried fields are stories of non-human suffering in rapidly changing worlds.

Within interspecies companionships, partners are enmeshed through multiple sensorial captors, allowing for increased ‘attentiveness’ (Van

Dooren et al. 2016) to possible transformations in their respective state of being, thus providing a relational intimacy prone to the emergence of eco-nostalgias. Such expressions of nostalgia are always contingent and evanescent: they yearn for the presence of an animal or a plant, for biological symbiosis, for interspecies mode of connection, for an assemblage inside a given ecosystem. In her account of matsutake mushroom love in the Japanese society, Anna Tsing eloquently highlighted smell as a powerful conveyor of fungi affect. While Europeans qualified it as nauseating, Japanese aficionados say matsutake ‘smells like village life and a childhood visiting grandparents and chasing dragonflies. It recalls open pinewoods, now crowded out and dying’ (2015: 48).

The following chapters corroborate the importance of olfaction for triggering memories of interspecies constellations; they also acknowledge the potential of other kinds of sensorial communication to conjure up former ecological entanglements. Waiting for the ‘Devil’s Symphony’ in an icy world (Howe), watching the horizon of empty hunting grounds (Hastrop), smelling the acrid odour of animals killed in a poaching massacre (High), missing the taste of smoked potato at harvest time (Angé), searching for chestnuts in thorny brambles (Sallustio) or muscular tensions in maize fields (Pitrou) all constitute transient instants of bodily perception likely to induce nostalgia.

Interestingly, such encounters condense memories that are simultaneously biographical and historical. Collisions between childhood remembrance and the current situation bring out decaying colours, scents, rustles, streams or flavours subdued by environmental deterioration. Conveying a sense of *temps perdu* like the Proustian madeleines, eco-nostalgia departs from mere recollections of pastry, to being more than reminiscences of personal experience: here, lived stories are concatenated with tales of devastation. To Tsing’s matsutake lovers, the village life encapsulated in smell ‘was an easier time, before nature became degraded and poisonous’ (ibid.). It is in such a diachronic perception combining historical and subjective spatio-temporalities that the critical and creative potential of eco-nostalgias emerges.

### **Third Proposition: Eco-nostalgias Are Critical and Creative**

Whilst being seen as a conservative affect by some (Albrecht 2006), we argue that eco-nostalgias can encourage for innovative action and ‘reclaim’ of devastated zones (Stengers 2012). Furthering Tsing’s exploration of ‘blasted landscapes’ (2015: 181), Kirksey et al. delved into desolated

places of New Orleans in the aftermath of Hurricane Katarina to highlight the emergence of new forms of interspecies intimacies and responsibilities that brought forth ‘biocultural hope’ (2013: 229). Sometimes, complicities arise taking the shape of a ‘radical solidarity project’ (Myers 2017: 299). Despret and Meuret’s above-mentioned description encapsulates the subversive potential nested in past inspiration. The authors specify that this is not ‘the vague nostalgia of a harmony that would have been lost’ (2016a: 27, our translation), in the Proustian vein. Theirs is a political and aesthetic decision to ‘invent ways of inhabiting a world that is being destroyed while resisting, locally and actively, this destruction’ (2016b: 30). Similarly, in Kyoto, Tsing met with a professor who sublimated his yearning into practice by revitalizing an abandoned woodland with his students. Learning the arts of multispecies care, they engaged in a ‘labor of love’ (2015: 183) intended to create propitious conditions for a thriving forest.

Another illustration of such creative potential is provided by the Latvian ‘tomato rebellion’ reported by Guntra Aistara (2014). In this region, newly integrated into the European Union, attachments to seeds as carriers of the taste of childhood and the Soviet years incentivize political activism. Gardeners grow a diversity of tomatoes embodying biographical and historical pasts, as forms of resistance to the implementation of the European Union seed law encouraging standardization and registration. Studying the use of seeds by Vietnamese migrants in the US to forge a sense of homeland, Virginia Nazarea points out the disruptive potential of activities triggered by nostalgia: ‘[Heirloom plants’] persistence against the hegemony of modernity sustains stirrings of nostalgia, making the desire to journey back, or to re-create a place, less of a romantic anachronism and more of a real possibility’ (2005: 114–15).

In her examination of migrants’ suffering, Sara Ahmed drew on the Freudian theory which understands melancholia as a sad longing for a lost object that is not identified (2010: 140). In contrast to such death wishes, she acknowledged that ‘the recognition of loss does not involve the pathos of realizing that something has gone that cannot be retrieved but rather the excitement of recognizing what can be retrieved, of what is still possible, even if not available at present’ (2010: 153). Then, yearning for the past entails hope, even if what is retrieved is not identical to the lost object. As a matter of fact, the regret for lost lifeforms can produce ‘concrete objects of desires’ (Kirksey et al. 2013: 241). Nadia Seremetakis’ (1994) story about a peach known as the ‘the breast of Aphrodite’ is an emblematic case in this regard. Longings for the precious fruit that she ate during her childhood in Greece engaged her in the search for a variety of tree she wished to plant in her yard.



Eco-nostalgias are very much expressed through ‘acts’ that materialize what is said to be vanished: cooking ‘forgotten vegetables’ brings them to existence. Such a performative dimension has been famously encapsulated in Svetlana Boym’s notion of restorative nostalgia, as an attempt at ‘a transhistorical reconstruction of the lost home’.<sup>12</sup> When driving to their ranchos to cultivate maize plots, the Mexican villagers studied by Pitrou enact agricultural and food practices they would not want to see lost because of urbanization. Likewise, in France, Sallustio documents the creation of original ways of life by recent rural settlers who take inspiration from pre-industrial farming to cope with present-day ecological challenges. Young adults planning to build new camps in the Amazonian rainforest (High), potato growers experimenting with native varieties better suited to changing climates (Angé), Icelandic artists releasing 15,000-year-old air encapsulated in ice-blocks during the COP21 (Howe), or arctic trackers using their dog sledges to hunt and transport film crews in search of the ‘last Eskimo’ also illustrate the valorization and reconfiguration of ancient techniques to navigate troubled times and spaces. In that sense, studying ecological nostalgias opens up avenues for understanding the forces that bring people to produce critical tropes and alternative acts in their quest for a liveable future.

Be that as it may, let us not be too romantic. Some are equally inclined to deviate from the subversive potential of nostalgic attachments and instrumentalize them according to their own political or commercial agenda, as our fourth point shall suggest.

### **Fourth Proposition: Or Else They Are Imperialist**

Contemporary eco-nostalgias are a nexus where visceral yearnings for past forms of life and institutional tropes of nostalgias meet. Ethnographic accounts in this book represent scientists, government officers, school-teachers, development stakeholders and conservationists who convey, often vicariously, nostalgic figures of environmental loss. Ironically, these outsiders are sometime complicit, however inadvertently, in the very changes they lament, turning eco-nostalgias into ‘imperialist’ ones ‘where people mourn the passing of what they themselves have transformed’ (Rosaldo 1989: 108). In his groundbreaking article, Rosaldo mentioned the paradoxical dimension of eco-nostalgias: ‘at one more remove, people destroy their environment and then worship nature’ (1989: 108). Eco-nostalgias not only hint at ‘mourning for what one has destroyed’, but

also involve lamenting for what one will annihilate in the future (Howe, this volume).

Take for example the implementation of Protected Areas which is justified as safeguarding wildlife against the damage caused by human livelihood. Geographer Roderick Neumann drew the historical continuity between the circumscription of safeguarded areas in Great Britain (hinged upon agricultural enclosures) and the establishment of national parks in post-colonial Africa. He argued that ‘Africa, for some Europeans, represented a lost Eden in need of protection and preservation, and that this sentiment was a major motivation behind the conservation laws and national parks’ (1996: 80). At the same time, it is well documented how national parks served to legitimize the displacement of some of its dwellers for the benefit of others, while extractive devastation continued in the surrounding areas (Adams and Hutton 2007; Meskell 2018; West, Igoe and Brockington 2002).

Similarly, Dustin Greenwalt and Brian Creech have analysed the strategic use of nostalgia by a state institution through the case of the Documerica project, a photographic campaign launched by the US Environmental Protection Agency. Comparing pictures of polluted landscapes, massive extraction and industrial towns with those of apparently uncontaminated wildlife, they show how nostalgia for both wilderness and unlimited industrial extraction is displayed to promote economies of sustainability, intended for the perpetuation of a capitalist mode of exploitation and consumption. Such instrumentalization of eco-nostalgias can also serve marketing purposes. Olivia Angé (2015) has described the extent to which attachments for lost rurality, related to artisanal craft and a sense of solidarity, are utilized as commercial devices by an international bakery chain based on capitalist manufacturing. In his afterword, Dominic Boyer affirms that ecological yearnings often glorify a politics of the future, avoiding any substantial changes. Public campaigns in the Documerica style, sourdough bread or germ plasm hoarding support his claim, as they all ‘appear to be about the restoration of imperial splendour (Making the Anthropocene Great Again)’. Such nostalgic tropes, intended to maintain the current state of affairs, have a long history under capitalism.<sup>13</sup>

What our contributors show are the complex entanglements of hegemonic eco-nostalgias with other forms of longings. Often, vicarious nostalgia draws on the affective impetus involved within interspecies companionship to pursue imperialist endeavours.<sup>14</sup> Roy Ellen unravels a clash between rainforest nostalgia held by its inhabitants who bodily engage with it on a daily basis, like the Nuaulu in Indonesia, and eco-nostalgic motives depleted from sensorial density, expressed by government officers, urban citizens, biologists and environmentalists. While the forest is

a place of dwelling crafted by the former's care, the latter depict it as a pristine wildland offering a pool of natural resources of global interest. In her chapter, Kirsten Hastrup remarks on outsiders' portrayal of the Thule as 'people from the past', while they keenly engage with all kinds of contemporary opportunities. Although they cooperate with film makers, researchers, tourists and journalists in the search for the 'last Eskimos', their life unfolds in another temporality grappling with the dilemmas of their persistence on the ice, despite climate change and threatening pollution.

Sometimes, institutional tropes find echoes in local communities. Olivia Angé describes the collaborations between Andean cultivators, a local NGO and international agencies to promote in situ conservation of potato landraces, as well as an ethic of more-than-human reciprocities inspired from pre-Columbian philosophies. In the Amazonian forest, the Waorani studied by Casey High have become acquainted with ideas of *cultura* (culture) and 'environmental conservation'. A new appreciation of the land is put forth where horizons of scarcity and irretrievable loss substitute the tropes of abundance that used to characterize the *wao öme* (Waorani land). Still, to Waorani people what is in danger is not an ancestral culture or a pristine nature, it is *wao öme* as a space-time for enjoyable and fertile relations and the possibility of a good life. Likewise, in the Mongolian steppe, Richard D.G. Irvine documents ecological attachments in a herder village under a post-socialist government. Unpacking another declination of the homeland, the *nutaq*, he sheds light on intertwined temporalities materialized in the landscape and explains how kinship stories mingle with nationalist narratives. All such encounters bring into play multilayered perceptions of space and time that are not subsumed within the linear temporality implied by modernist eco-nostalgic tropes.

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Discourses of loss, whether they address natural or cultural changes, are pandemic today. They tell us something about the world we live in (Berliner 2020): a world under threat in which many humans feel powerlessness and anxiety, where a-good-life-for-all-humans and interspecies relatedness seem unattainable. The anthropologists gathered in this volume bring to light individuals and groups diversely expressing their desires to persist on such a damaged planet, or how they learn from the past to create new ways of inhabiting their homes. Hopefully, as hope and nostalgia walk hand in hand, such voices gain more traction in the public spheres all over the globe. It is, however, a matter of political choice to take these voices seriously.

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## Notes

1. This expression refers to ‘technological change’, the spread of high-yielding crop varieties and high-energy inputs such as fertilizer (Brush 1992: 145).
2. Donald Plucknett and Nigel Smith identified the rationale of gene banks as future-gearred: ‘plant breeding, an outgrowth of genetics, has a central role in the worldwide effort to improve agricultural output, and breeders rely on genetic resources to produce better-adapted and higher-yielding varieties’ (1987: 3).
3. While most cultivators have reduced the number of varieties in their plots at the regional level, there seems to be no erosion in the potato gene pool (Brush 1992; de Haan et. al. 2010; Zimmerer 1996).
4. Stefan Helmreich advanced an insightful distinction between lifeforms and forms of life. Lifeforms are organisms entangled in an ecological configuration. The forms of life are ‘those cultural, social, symbolic and pragmatic ways of thinking and acting that organize humans’ (2009: 6, quoted in Van Dooren 2014, although the latter argues that non-human animals elaborate forms of life as well).
5. Etymologically, nostalgia is a neologism created from the Greek *nostos* (returning home) and *algos* (pain, ache, grief). Originally nostalgia referred to an intense homesickness caused by geographical displacement. While returning to one’s homeland is a yearning described in literature as early as in Homer’s *Odyssey*, the neologism itself was only coined in the seventeenth century by Johannes Hofer who thereby diagnosed a potentially fatal disease (Bolzinger 2007).
6. As Latour puts it: ‘par l’adjectif moderne, on désigne un régime nouveau, une accélération, une rupture, une révolution du temps’ (‘by the modern adjective, we designate a new regime, an acceleration, a rupture, a revolution of time’; 1991: 20, our translation).
7. Art and literature in the eighteenth and nineteenth centuries contributed to the diffusion of eco-nostalgias at this time. Oliver Goldsmith’s *The Deserted Village* provides a striking example. Written at a moment of the dislocation of rural communities under the enclosure legislation, this famous poem is imbued with

nostalgic attachment for an idealized past in the countryside. Whilst Goldsmith longings denounce peasants' dispossession, this nostalgia was not necessarily critical. According to art historian Ann Bermingham, ecological yearnings conveyed by the '[English] picturesque aesthetic muted the problems caused by enclosure and the agricultural revolution and harkened back to a golden age' (1986: 83).

8. In her lecture, Klein emphasizes that these zones are populated by subaltern communities, most of the time cultural minorities, drawing thereby a correlation between environmental destruction and racism (see also Hage 2017a). Studying eco-nostalgias opens a rich vein to shed light on the 'relation between racial and environmental othering' (Hage 2017b) in contemporary societies.
9. Despret and Meuret explain that sheep grazing sites were deserted under breeding modernization initiatives, sometimes becoming inaccessible due to overgrown vegetation. When the new shepherds opened the pen doors, sheep excitedly wandered hills as their 'cradle' (2016a: 120, our translation). The flock articulated on a collective memory embodied and enacted in grazing, which entailed selecting plants as food, thereby regenerating places.
10. This is the term used by biologists to refer to animals' periodic return to their place of birth.
11. *Umwelt* is a key notion in Jakob von Uexküll's (2004) semiotic theory. It refers to an environment as perceived by a given animal, according to the sensorial organs he is endowed with. Sensorial captors enable the perception of certain objects, at the expense of others. Those captured by the senses are imbued with signification and therefore affect the perceiving body.
12. <http://monumenttotransformation.org/atlas-of-transformation/html/n/nostalgia/nostalgia-svetlana-boym.html> (last accessed 24 June 2020).
13. In her study of the English rustic aesthetic in the eighteenth century, Bermingham deciphers its eco-nostalgic tone as enmeshed in aristocrats' 'strong commitment to the economic order of the present' (1986: 77).
14. Rosaldo already warned us of an 'attempt to use a seemingly harmless mood as a mask of innocence to cover their involvement with processes of domination' (1989: 120).

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