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Foreword

Maja Gori, Alessandro Pintucci, Martina Revello Lami

The fourth volume of Ex Novo has the pleasure to host Heleen van Londen, Marjo Schlaman, and Andrea Travaglia as guest editors of the special issue titled *The Natural and The Cultural. Integrating Approaches in Landscape Heritage Management*. This timely collection of peer-reviewed papers and short essays seek to bridge the longstanding gap between natural and cultural heritage when it comes to landscape management. To this end, the editors foster a combined approach to both domains by promoting stronger internal cooperation and the systematic engagement of new forms of integrated heritage with the external world.

The volume contributes to the debate on the new role of heritage in an ever changing framework for land use, infrastructural investment and sustainable development at national and international levels. All contributions are based on the papers presented in two sessions at the EAA annual meeting in Maastricht 2017.

The final section of any annual issue is usually dedicated to the reviewing recent books, opened exhibitions, international meetings or conferences. This year we decided to use that space to interview the author of the front and back cover of the issue. It is now a tradition for Ex Novo to host great artworks on its covers, and the career path of the artist selected for this occasion, Fabio Fogliazza, ties particularly well with the theme treated in this number. Discussing his vision on the eternal divide between natural and cultural seemed thus the best epilogue for the volume.

As a last note, we are very glad to announce that the editorial board of Ex Novo grew significantly this year, and since March includes three new associate editors: Enrico Giannitrapani, Matteo Cantisani and Maurizio Crudo. Thank you guys for joining the team!

Acknowledgments

We would like to thank first the guest-editors who chose our journal to host their volume and all the authors who contributed to its completion. We owe much gratitude to the colleagues who spent time and energies engaging in the double-blind peer review process to which all papers are subjected. Some of them agreed on disclosing their identities and we are glad to thank them individually: Paul Everill, Rachele Dubbini, Benedetta Castiglioni, Stefano Quilici, Graham Fairclough and Hana Morel. We are of course very grateful also to our advisory board for their help and support.

Last but not least, special thanks go to Fabio Fogliazza, who allowed us to use his creations on the cover of this special issue.
Heritage Management. The Natural and Cultural Divide

Heleen van Londen, University of Amsterdam - ACASA Department of Archaeology, Amsterdam, the Netherlands

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Arkadiusz Marciniak, Adam Mickiewicz University in Poznań, Poland

In 2005, David Lowenthal commented on the dissimilar approaches to natural and cultural heritage and how these differences impact the protection and management of these heritages. His analysis touches on the western European perceptions of nature and culture that go back to the Age of Enlightenment. In his article, the motivation for safeguarding heritage stands out, as nature conservationists emphasize the long-term economic or ecological benefits, while cultural heritage managers point towards cultural or aesthetic benefits (Lowenthal 2005: 87). Others have made similar statements, some eight years later, calling the divide between the domains a fundamental error (Renes 2013; Harrison 2013).

Justifications why the natural and cultural divide should disappear in heritage management may vary. Regarding World Heritage sites, the IUCN and ICOMOS organized the Connecting Practice project (2015; 2017) with the aim to explore the ways in which the interconnectedness of natural and cultural heritage can be best supported with the purpose of preserving both heritages in the landscape. Here, it seems that the complexity of landscape calls for effective management strategies, forming the deeper motivation to interact. A sectoral heritage management practice may negatively impact the other domain, for instance through mowing, flooding, and deep-rooting species; or vice-versa, the removal of protected plants on cultural heritage monuments such as ruins or burial mounds. Tourism may impact the natural environment surrounding cultural heritage monuments, not only because of problems of mass, but also regarding facilities such as restaurants, parking places and hiking paths. Another example of justification is found in the ten-year research project Protection and development of the Dutch Archaeological-Historical Landscape and its European Dimension (2000-2010) (Bloemers et al. 2010). Many disciplines were brought together to study the issues and solutions to achieve sustainable development in reference to the European Landscape Convention (Bloemers 2010: 3). A third example is given by Harrison (Harrison 2015, 24), where it is stated that now that the critique of separating natural and cultural heritage has been well established, the implications for cultural heritage management in this expanded field of integrated natural and cultural heritage management should be assessed. He advocates for the use of ‘intertwined heritage’, labelled as part and parcel of the Anthropocene, to serve wider societal issues, now and in the future. What follows is the overarching purpose that renders the nature-culture divide obsolete. There is no point in keeping the two domains separated, on the contrary, much to be gained when both are combined. In his argumentation, societal issues are presented as the logical driver for interdisciplinarity. All these above mentioned arguments resonate with the four primary drivers of interdisciplinarity defined by Klein (Klein 2010: 26). The author cites the typology of the National Academy of Sciences in the United States (2004), listing (1) the inherent complexity of nature and society, (2) the desire to
explore problems and questions that are not confined to a single discipline, (3) the need to solve societal issues, and (4) the power of new technologies. The latter is gaining importance rapidly and can be expected to form additional arguments to lift the divide, for instance using the results of innovative remote sensing techniques.

The three reasons to overcome the longstanding divide between natural and cultural mentioned above, i.e. complexity, the broad exploration of problems and solutions and the societal issues as drivers for interdisciplinarity, run parallel to distinctive perspectives on heritage. As such, they form a relevant context to understand interdisciplinary aims and perceived benefits.

**Heritage perspectives and drivers for crossing boundaries**

Beginning in the second half of the 20th century, three modes of thinking can be discerned in which the discourse on the meaning of heritage for society has taken shape and form. Roughly, these modes can be characterized as 1) the *Universal perspective* and the intrinsic historical value of heritage (1970’s - onwards); 2) the *European perspective*, heritage values relating to identity and memory (1990’s - onwards); and 3) the *Human Rights perspective*, heritage value relating to well-being (2005 and onwards). These modes of thinking are not to be seen as consecutive phases, but rather as frames rooted in certain periods. Through time, extra strands have been added to the debate. The discourse then shows a certain time depth in which the meaning of concepts like ownership, stewardship and benefits are moulded. Strands are shared by communities and networks worldwide, and all three modes are coexisting. Especially the Human Rights perspective influences the current debate on heritage values.

<table>
<thead>
<tr>
<th>European Meetings Prior To Declarations</th>
<th>Place</th>
<th>Focus of the meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985 2nd meeting</td>
<td>Granada, Spain</td>
<td>The protection and management of architectural heritage Convention for the Protection of the Architectural Heritage of Europe(European Treaty Series No.121).</td>
</tr>
<tr>
<td>1996 4th meeting</td>
<td>Helsinki, Finland</td>
<td>The political dimension of cultural heritage conservation in Europe. Resolution No. 1 on the cultural heritage as a factor in building Europe. Resolution No. 2 on the cultural heritage as a factor of sustainable development</td>
</tr>
</tbody>
</table>

Table 1: Overview of meetings leading to resolutions and declarations adopted at ministerial conferences of Ministers responsible for Cultural Heritage.
The three modes are reflected in the declarations on heritage produced by the Council of Europe, and in issues that were on the agenda of meetings between European ministers responsible for cultural heritage. The titles of the declarations are telling. They go from protection of what is of value (1), to politics of identity (2) and well-being (3). The declarations have formed the basis of European Conventions and legal framework for member states. The last and most recent meeting was in 2015. The 2015 declaration aims for a well-being and a common European strategy based on unifying concepts like heritage and citizenship, society, economy, knowledge, territorial governance and sustainable development (Council of Europe 2015).

The Universal perspective: integrating sectors
The discussion on the value of heritage has been dominated in the early 1970s by the universalist position stating that heritage is of outstanding universal value and as such belongs to humanity as a whole:

“The cultural and natural heritage is among the priceless and irreplaceable assets, not only of each nation, but of humanity as a whole. The loss, through deterioration or disappearance, of any of these most prized assets constitutes an impoverishment of the heritage of all the peoples of the world. Parts of that heritage, because of their exceptional qualities, can be considered to be of ‘outstanding universal value’ and as such worthy of special protection against the dangers which increasingly threaten them.” (UNESCO World Heritage Centre 1972a)

Outstanding Universal Value (OUV) is defined in the guidelines of the UNESCO World Heritage Convention (UNESCO, World Heritage Centre 2019: 20) as

“cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. As such, the permanent protection of this heritage is of the highest importance to the international community as a whole”.

Sites with OUV hold a perceived value that is undisputed and thoroughly researched by experts. State parties select sites to become listed as world heritage. Also, the protection and management of these values for future generations is predominantly state led. Most European member states organized their first protective legislation after the Second World War within the Universal perspective. In it, heritage is seen as a public interest. Arguments for proving the OUV of sites have been instrumental in nation-building (Labadi 2013). Sites were framed through state politics and institutions in national heritage narratives. Sites with OUV have essence; there is a belief in the intrinsic nature of these sites. Authenticity as a concept lies at its core. Authenticity, according to UNESCO, is related to the spirit and feeling of places (genius loci). In 1994, the Nara Document (ICOMOS 1994) on authenticity provided a dynamic revision, supporting a more relativistic stance. However, in practice the revision has had very little impact, the concept refers mostly to the ‘originality’ of the physical fabric and the condition of sites i.e. design, material, workmanship, and setting (Labadi 2013). For the success of preserving heritage for future generations it is thought critical to gain reliable knowledge not only from an academic élite and its dissemination through public outreach to those who lack heritage knowledge, but much broader (Holtorf 2007). Contributions of any given country towards global heritage should be questioned as to the universalistic and undisputed knowledge for the global audience (which is non-descriptive). To be objective,
knowledge needs to come from multiple sources with the potential to be combined and/or integrated into heritage discourse. Experts have a substantial role in respect to determining Outstanding Universal Values. They are regarded as the only legitimate and credible agents for the identification of potential world heritage sites. Experts define methodologies to research those subjective qualities of sites (for instance Wells 2014).

Within the Universal perspective, the complexity of the landscape justifies crossing disciplinary boundaries, as it is in essence a part of the intrinsic value of that heritage. Crossovers serve the better protection of the site in its many facets as is illustrated above with the Connecting Practices project reports.

**The European perspective: identity and diversity as unifying concepts**

The Valletta Convention (1992) as well as the European Landscape Convention (2000) issued by the Council of Europe aim to consolidate the European identity. The motto ‘Diversity in Union’ stands for value of freedom, equal rights and solidarity (Pinxten et al. 2007). Heritage is seen as part of a shared European history, one of the many facets present in a diverse landscape. As such it relates to memory and meaning. Many studies were funded on the wealth of Europe’s diverse Cultural Landscapes, for instance by funding programmes like Cost Action A 27 (2004-2008) Understanding Pre-industrial Structures in Rural and Mining Landscapes (COST Landmarks 2005).

The European Landscape Convention (ELC) of 2000 came into force in 2004, introducing a then new definition of landscape. According to the ELC landscape is

> “an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors” (Council of Europe 2000: 9).

Each Party shall undertake “to recognise landscapes in law as an essential component of people’s surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity”. Currently the following statement features on the Council of Europe website:

> “As a reflection of European identity and diversity, the landscape is our living natural and cultural heritage, be it ordinary or outstanding, urban or rural, on land or in water.” (Council of Europe 2019).

The objectives are well-being for all and sustainable development (Prieur 2006: 15). Nature and culture are since connected by definition. And this vital understanding has been adopted as such by many member states that integrated the convention in their national legislation and policies -thirty-nine out of forty-one countries have ratified the Landscape Convention. Within the European perspective, landscapes are seen as multi-faceted, as ‘mosaics’ incorporating all together social, economic, cultural and ecological features. Studying and managing the landscape then requires a broad scope of disciplines, not per se restricted to those dealing with nature of culture (Fairclough & Van Londen 2010, 653). Researchers and heritage managers aim to define landscape character, managing change. The justification is sustainable development, steering away from the practice of protected and fenced off monuments.
The Human rights perspective: unifying through serving the public

Within the past few decades, two major developments have taken place. Firstly, the placement of heritage within the context of human rights, and secondly, the growing influence of private enterprises in heritage protection. These can be viewed as the processes of democratization and liberalization. The direction is towards that of utilization and profit. Social values of well-being and justice are added to, or maybe replacing, the universalist position and identity frameworks (Hodder 2010). In the human rights discourse, issues are socially negotiated. Heritage within that context is no longer in the domain of experts, its use and function is decided by the people and for the people.

The Faro Convention (2005) defines heritage as a social value, in explicit reference to the declaration of human rights: *Le droit au patrimoine* (the right to heritage). The convention introduced a new social reference group for heritage construction: the heritage community that “consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations” (Dolff-Bonekämper 2010: 19). This convention differs from both the Valletta Treaty and the European Landscape Convention which deal with heritage or landscape itself, stating practical do’s and don’ts (Fairclough & Van Londen 2010). Before this convention, there have been other treaties aiming to link heritage to human rights (Jukiletho 2012). An example of this includes the Fribourg Declaration (2007), which recognizes culture as the meta-structure of any civilization. The right to cultural heritage, embedded in the right to participate in cultural life, has to be associated with other basic needs such as the right to shelter, food, clothes, security and love (Dolff-Bonekämper 2010).

Although these linkages are clear to some, it is not widely shared by heritage practitioners who view conservation work as a technical matter (Logan 2012) or who act within a different paradigm, that of safekeeping (Van Londen 2016). Cultural diversity, cultural heritage, and human rights are the three central concepts for this discourse that should be regarded as related. Heritage identification, inscription, managing and monitoring are to be understood as a cultural practice (Logan 2012; Byrne 2008).

The purpose of linking heritage to human rights is to ensure safety, well-being and freedom for minorities and vulnerable groups (Sen 1985). Political and civil freedoms that include citizens, whose voices are being heard, is instrumental to the role of democracy and human rights (Sen 1999). This insight has also led to the association of heritage to human rights, where people have many different identities and freedoms that depend on respecting all individuals. Heritage is therefore intertwined with politics, identity and territory. In many cases, this has resulted in conflict and violence with various scales of impact (Silverman & Ruggles 2007). Minorities, certain ethnic or religious groups may get outcasted when dominant parties forcefully use a single identity to define the norm (Sen 2007).

The list of human rights issues range from civil and political, to cultural and environmental, which includes climate change (OHCHR 2016). Both directly and indirectly, the adverse impacts of climate change threaten human rights throughout the world, including the rights to water and sanitation, food, health, housing, culture and education (OHCHR 2016). Climate change affects the environment and poses a threat to vulnerable ecosystems and isolated communities. Climate change and human rights are often debated in terms of environmental actions, where cultural values are displaced. It is why heritage allows for human rights.
Nevertheless, the inclusion of cultural heritage in the climate change discourse is necessary, and reinforces the international community’s obligation to take mitigation activities (Maus 2014). World Heritage Sites may be at risk due to climate change. For example, the Palace of Westminster and the Tower of London are threatened as the Thames Barrier in London was created to protect land and property against flooding, but due to the estimated rise in sea level, between 0.26 m and 0.86 m higher on average by 2080 (UNESCO World Heritage Centre 2008), the sites will be affected. Changes to both tangible and intangible heritage caused by climate change cannot be separated from changes in society, communities’ behaviour, demographics, conflicting societal values and land-use planning (UNESCO World Heritage Centre 2008). Another example concerns local communities, who reside in the Arctic, on low-lying island states or in coastal regions, facing serious loss of their lands and territories that are linked to social and cultural identity, beliefs and transmission practices inherent to their human rights (Maus 2014). In some cases, preservation itself could be turned against peoples’ rights due to oppressive policies that reinforce economic disadvantages with rhetoric about cultural continuity, heritage, and characterisation of the poor as “traditional” and “living in the past” (Pyburn 2007). A shift in focus from a heritage-driven discourse towards a human rights-driven one, puts under the spotlight the people who may contribute to protect cultural heritage and the social structures and cultural processes that underlie this relationship. In addition, a cultural-rights-based approach to climate change may contribute to the imposition of an extra layer of obligation of governments in their fight against it (Maus 2014).

Within the human rights perspective, interdisciplinarity is the logical way forward to serve societal issues like civil rights, well-being, climate change and other great challenges society faces. Crossovers are not restricted towards natural and cultural heritage domains, but include domains like politics, health and economy.

While the perceptions, aims and benefits may differ, all three frames welcome mixing disciplinary concepts, methods and practice, albeit for intrinsic heritage value, sustainable development of the landscape or solving societal issues.

Multi- and interdisciplinarity
Before turning to the practice itself, it is worthwhile to elaborate further on the taxonomy of interdisciplinarity. Not all types of disciplinary combinations are per se interdisciplinary. And it does not have to be. The taxonomy relates to methods of crossovers and therefore helps to understand practice. The concept of interdisciplinarity itself can be perceived as vague. For this purpose definitions and concepts in this issue are drawn from the Oxford handbook of interdisciplinarity (Frodeman et al. 2010).

Integration of disciplines is the determinant factor of interdisciplinarity. Also, degrees of disciplinary interaction may count as such. New knowledge, methods and concepts may arise. In contrast, multidisciplinary approaches juxtapose disciplines to offer broader insights, while disciplines do not alter in any way. Looking at a similar topic from different views is multidisciplinarity (Klein 2010: 17-24). These views can be ordered as a sequence or be coordinated when aligned. Because intercommunication is lacking, this type of practice is thought of as weak. Using information from one domain in another, for instance using history to create an historical context in an archaeological analysis, is also a multidisciplinary method. When existing methods are restructured through explicit focusing and blending...
this may result in a new approach. Comparable disciplines can form what is called a narrow interdisciplinarity, as opposed to broad practice such as the humanities and the sciences. They have little in common, so other disciplines may be brought in. Following this categorization, if natural and cultural heritage management were to be integrated, this would classify as a broad or wide interdisciplinarity. And, other disciplines, for instance from social sciences or earth sciences may be added to the combination.

Integration may occur on theoretical or methodological levels. The latter is chosen to improve results, for instance by borrowing a method from a different domain. Theoretical integration alters the general frame of thinking and therefore creating room for new types of analysis. To help understand the origins of the sectoral divide as Lowenthal showed, is a form of deconstruction that will help adopt wider frameworks of thought (Lowenthal 2005).

Integration may come in two forms using the metaphors of bridge building and restructuring. Bridge building can occur between two firm and complete disciplines, while restructuring uses only parts of a discipline.

Transdisciplinary practice stands apart from the multi- and interdisciplinary practice all together, as it cuts through the academic, policy and public domain, such as citizen science projects or the integration of lay knowledge in scientific output (Tress et al. 2003; Van Londen 2004). This type of practice is advocated under the Human Rights Perspective. So-called Faro-projects emphasize public participation. Technological innovations propelled by the use of Internet help communities to act more independently.

Modes of interaction
What crossing boundaries really means in practice remains the challenge to be explored as posed by Harrison. He stresses the similarities of heritage processes and aims that offer room for interaction (Harrison 2015). Other publications advocate practical guidelines, for instance for the management of World Heritage sites (Leitão et al. 2017) or - a Dutch example - bringing cultural heritage management into the scope of nature development of brooks (Bleumink & Neefjes 2017). Also, the integration of heritage into agricultural policy is put forward (Raap 2015).

The aim of this special issue is to reflect on an integrative heritage approach within this new framework. Various contributions illustrate the need for- and benefits or restraints of - a cross-over. The papers collected in this issue stem from a session focusing on the integration of natural and cultural heritage management held at the European Association of Archaeologist (EAA) conference in Maastricht, Building Bridges (Session 302 Integrating natural and cultural heritage. Internal coherence and external efficiency). The conference session was one of the outputs of the Erasmus plus project Innovative format of education and training of the integrated archaeological and natural heritage (ANHER Erasmus plus project 2014-1-PL-KA202-003565) aimed at producing e-learning modules on the theme (Teaching Heritage 2017).

The first contribution by Bas Pedroli offers an academic perspective on theoretical integration by using an anthropological analogy. In his paper Natural heritage management, or is it cultural heritage after all? Towards new commons and sharing interests in the landscape the author questions the western way of interpreting landscape. His conceptualization of landscape is indeed a mosaic of varies facets as is advocated by the European Landscape Convention. The second article
by Emmet Byrnes, Karl Cordemans and Cees van Rooijen is an international evaluation of the impact of the common EU agricultural policy on archaeological heritage. These EU experiences are accompanied by an evaluation from the United States by Jeff Altschul and Michael Heilen. Both contributions focus on the devastating effect of nature management on cultural heritage, calling on the intrinsic value of heritage. The authors have looked into policy practice and stress the importance of an immediate and combined approach to stop current devastating ways of management. Theirs is an activist analysis bringing forward a clear message, where the focal point is the relations between politicians, policy makers and experts. The following three contributions introduce the wider public as a variable in the equation natural/cultural heritage management. Åsa Ahrland presents as case study the new business model introduced in Sweden that promotes the integration of natural and cultural heritage. In particular, she illustrates the potential that collaborations with the private sector may have. Kornelia Kajda describes a Polish case study on a heritage discourse in society combining expert and public knowledge in a grim setting relating to identity politics. Andrea Travaglia focuses on heritage and crowd-based initiatives regarding the new environmental act in the Netherlands. She contextualizes democratization processes in policy. This section on public engagement is followed by pragmatic approaches. Heleen van Londen offers four practical ways to engage in interdisciplinary cooperation, while Marjo Schlaman stresses the merits of disciplinary work, asking herself whether integration is always a good idea. The volume concludes with an agenda for the future by Arkadiusz Marciniak.

This volume contributes to the ongoing discourse regarding the natural and cultural divide with a broad perspective that includes an academic, policy and societal point of view. It has aimed for both conceptual as practical approaches to the topic, as well as the motives for crossovers such as safeguarding and active contributions to broader societal issues. These motivations resonate with current paradigms in heritage management.

References


https://muse.jhu.edu/.


Heleen van Londen et al.


UNESCO, 1972, Convention Concerning the Protection of the World Cultural and Natural Heritage, World Heritage Centre.


Towards new commons and sharing interests in the landscape, integrating natural and cultural heritage

Bas Pedroli

Wageningen University & Research, the Netherlands

Abstract
Heritage values represent a common good, contributing to societal identity. Landscape is a topical issue because it represents character and identity in both a spatial and a temporal dimension, uniting natural and cultural aspects of heritage at the same time. Especially in Europe, practically all natural heritage can be considered cultural heritage as well, since it is through human action that Europe’s biodiversity has evolved. Heritage perspectives on landscape and nature underline time depth, human agency and social value within landscape. Its cultural starting point does not marginalise nature, but places nature within cultural filters, thus highlighting the reciprocity of nature and culture in the creation of sustainable places. Today’s changing society is transitioning towards new forms of governance dominated by collaboration and continuously shifting networks or actors. Reported examples of cultural landscapes explore heritage management approaches that benefit from combining natural and cultural heritage perceptions. In this context, commonly accessible heritage can bring people together in joint efforts to use the inherited landscape as a shared and cherished resource rather than a conserved and regulated landscape.

Keywords: Perception, Transition, Access, Governance, Common Good

Introduction: The challenge of a living landscape based on cultural and natural heritage
Traditional European landscapes represent multiple layers of natural and cultural heritage that can hardly be accounted for by science or policy (Palang & Fry 2003). European landscapes characterise a small continent impacted by a large range of climatic conditions, and affected by Central Asian, Atlantic, Arctic and African biological influences. Geological and geomorphological features led to strongly variable soils, reflected in a highly diverse flora and fauna. While accommodating to their environment, since prehistoric times people settled in Europe. They have significantly added to the remarkable diversity of landscapes, now representing a convoluted manifestation of cultural and natural heritage (Fig. 1). Over time, a large multiplicity of communities, social constructs and customs evolved, creating the great diversity of European landscapes (Pedroli et al. 2016).

A large part of the cultural and natural heritage represented by this diversity of landscapes is not being sustained by current land use since the land use has undergone multiple transitions following societal developments, cultural changes, agricultural innovations and land reforms (Pinto Correia et al. 2018). Therefore, gradual or abrupt transformations in the landscape have occurred throughout history. In fact, transformations are also inevitable in the future because a landscape that remains the same is no longer a living landscape and is, in the best case, doomed to survive as a museum landscape (Priore 2009). Today, landscape is often used...
as a gadget by the privileged who can afford to buy houses that look out over beautiful scenery, but at the same time, the everyday landscape provides (subconscious) identity to its inhabitants (Stobbelaar & Pedroli 2011).

Heritage may very well be re-appropriated as an identity carrier for new inhabitants, be it second-homers, tourists or even migrants (González 2015), although the darker side of history is often difficult to forget and can lead to new misunderstandings as is recently captured in the concept of dissonant heritage (Lähdesmäki et al. 2019). Vanishing landscapes, i.e. landscapes that lose their characteristic elements and features, are essentially the consequence of unintended side-effects of land use change. These landscapes are reported everywhere in Europe: the degradation or vanishing of ancient field patterns and roads, archaeological rudiments, land management structures, farm buildings, and irrigation and drainage systems (Pinto Correia et al. 2018: 64). Associated social and communal landscape management systems and narratives often degrade or disappear as well.

Within this context, the objective of this paper is to reflect on the value of natural and cultural heritage embedded in landscape and the potential role heritage can play in envisioning future living landscapes in Europe.

**Natural and cultural heritage, do we really cherish them?**

Human management of the landscape - even if low-impact - has been present for thousands of years, even in remote and seemingly untouched nature (Holtmeier & Broll 2005). The agricultural history of Europe started long before historical sources began to document the
European civilisations of the sixth century BC (Pounds 1990: 9). Therefore, it is difficult to distinguish between cultural and natural heritage, although the two disciplinary fields are often far apart, not only in Europe but all over the world, and symbolised by the Convention on Biological Diversity on the one side, and the UNESCO World Heritage list on the other (Agnoletti & Rotherham 2015). The term biocultural diversity has been coined to overcome this challenge (Elands & Van Koppen 2012; Agnoletti & Emanueli 2016; Elands et al. 2018), but sectorial policies are dominant over cross-sectoral issues everywhere and conflicts over priorities easily arise, such as: How important is it to preserve historic farm buildings and settlement structures with associated land use patterns, even if not economic anymore? Can land abandonment in specific cases also be welcomed as an opportunity for the reappearance of animal species that vanished from the area long ago? Or even more difficult, given the limited resources, can the consequences of urgent societal demands such as continuing urban development, increasing mobility, and intensifying agriculture be considered acceptable, specifically regarding the trade-offs for cultural and natural heritage? This is the more relevant question, since landscape, as the logical expression of cultural and natural heritage, is generally not viewed as a separate sector in national policies, and certainly not in the European Union (EU henceforth) (Pedroli et al. 2016).

The EU has no competence in landscape nor in spatial planning, while practically all policies of the EU - agriculture, energy, climate, transport, urbanisation - have direct consequences for landscape and heritage. For example, within the framework of the Common Agricultural Policy if the EU since the 1980s, stimulating measures on forestation, the conversion of grazing land to cropland, scale enlargement etc. have led to important landscape changes across Europe, e.g. in the Mediterranean (Serra, Pons & Saurí 2008) and in mountainous areas (MacDonald et al. 2000). This poses a large threat to sustainable landscape management; numerous further examples of unintended and generally avoidable negative landscape impacts exist, caused by sectoral developments (see Antrop 2004; May 2015; Plieninger et al. 2016). Since these “unseen” landscape changes (Pinto Correia et al. 2018: 64-109) tend to diminish landscape diversity, implying a decrease in biodiversity and cultural identity as well, large challenges exist for a more holistic approach to sustainable landscape management (Plieninger et al. 2015; Antrop & Van Eetvelde 2017).

These trends lead to polarised land use, characterised by land sparing: highly efficient production oriented spaces versus small scale peri-urban multifunctional landscapes (Metzger et al. 2018) in which the traditional family farm - characteristic for European agriculture - is likely to disappear within a few generations due to the increasing importance of market-oriented land and product pricing in a global context. Cultural and natural heritage embedded in landscapes are threatened by uncontrolled land abandonment, biodiversity decrease, loss of ecosystem and landscape services, and declining rural liveability (Van der Sluis et al. 2015). However, stakeholders and civil society alike express the wish for a different future (Pérez-Soba et al. 2018). “We don’t get what we want!” (Pedroli et al. 2015). By developing and supporting visions for societal development that go beyond four years of the regular electoral mandate of most European parliaments, today’s process of democratic decision making does not seem to be optimally tuned to safeguard natural and cultural heritage in the landscape.
Towards new commons

Are natural and cultural heritage common goods? In the increasingly market-oriented societies of today’s Europe, politicians often claim that if people really care about heritage values they should also be willing to pay for them. However, since the individual willingness to pay for public goods is not by definition proportional to the perceived values of heritage, this increasingly leads to market failure, and thus degradation of heritage (Cooke & Moon 2015). The political economist Elinor Ostrom received the Nobel Prize in 2009 for “her analysis of economic governance, especially the commons” (Mandl 2019: 171). When Ostrom published Governing the Commons (Ostrom 1990), one could not have imagined how her ideas about community-based development, self-organisation, self-governance and actor-networks would be extensively cited. Yet, in practice, bringing these ideas to our current socio-economic context remains a highly relevant societal and political challenge.

In 1968, the American ecologist Garrett Hardin in Tragedy of the Commons (Hardin 1968) drew attention to two human factors that drive environmental change:

“The first factor is the increasing demand for natural resources and environmental services, stemming from growth in human population and per capita resource consumption. The second factor is the way in which people organise themselves to extract resources from the environment and eject effluents into it - what social scientists refer to as ‘institutional arrangements’. Hardin’s work has been highly influential but has long been aptly criticised as being oversimplified.” (Dietz et al. 2003: 1907).

One of the issues is that many social groups (such as herders on the commons both in Atlantic and arctic lowlands and in alpine areas) successfully avoided resource degradation, over many centuries, by maintaining self-governing, sustainable institutions, precisely the type of common management that Hardin claimed was ineffective; it was only when these systems became disrupted by external private or state ownership that ‘tragedy’ ensued (Dietz et al. 2003).

Inspired by Ostrom’s intellectual legacy, cultural as well as natural heritage may serve as the material and semiotic spark for strategies that will generate opportunities for development that are based on user rights. Today’s constantly shifting networks of relationships co-create new social arrangements, as suggested by Actor-Network Theory (Latour 2004). This will create new economic prospects, enhance business models, and also encourage approaches that stimulate involvement and further integration of social groups in new rural commons. As a result, rural areas will have increased social cohesion, a better social climate, and improved living conditions. Collaboration between citizens, entrepreneurs and democratic institutions is increasingly being recognised as beneficial for successful rural land use planning (Dietz et al. 2003). This is reflected in recent changes to EU rural development policy that makes funds available for different forms of collaboration, including environmental management in agricultural landscapes.

Within the research of the commons, substantial theoretical and conceptual innovations are to be expected from inter- and transdisciplinary reflections on the applicability of the concepts of deep-mapping (Fagerholm & Käyhkö 2009; Bodenhamer et al. 2013; Roberts 2016) and place-making (Beilin & Bohnet 2015; Buttimer 2015; Primdahl & Kristensen 2016) to community-based governance modes for societal transformation in landscapes that represent substantial natural and cultural heritage.
Change of paradigm needed for a reappraisal of the commons

The earliest form of nature conservation was born from the belief that the landscape lives, and that nature is inseparable from ourselves. Landscape commons were an inherent expression of this belief (Olwig 2013). To elucidate this I make a short detour to an area where this is still operational, although threatened as well. The Karakol Valley in southern Siberia, the centre of the Eurasian continent, may serve as an example for reappraisal of the commons in Europe (Fig. 2). For the Altai Indigenous People, native identity grows out of the land. The Karakol Valley represents the spiritual heart of the Altai Republic (Dobson & Mamyev 2010). Through the ages, its natives have taken great care to protect the valley from harmful practices. A wonderful wealth of stories explains the sacredness of specific places, objects and living beings, the role of spirits in daily life, and the guidelines for behaviour. The Altaian worldview can be summarised in three rules of thumb: to just undertake actions that have meaning, to take care of the right timing of everything to happen, and to keep measure and proportion, never taking more from nature than one needs (personal communication, Anatoliy M. Unukov, August 2016). Such key concepts of respect, balance and harmony immediately make clear why the Altai culture is often completely at odds with the modern Russian and Western utilitarian paradigm that we generally tend not to question.

For the Altai culture, a modern culture within the Russian Federation, profit maximisation is an alien concept. Even if we were to consider embarking on new landscape commons, this is already made difficult because Western culture does not fully appreciate our relationship to nature and landscape with embedded natural and cultural heritage. Still, although the landscape commons in Europe have been enclosed almost everywhere (Olwig 2013), there are clear tendencies of revaluation of rights of use instead of exerting ownership rights. Commonly accessible heritage can bring people together in joint efforts to use the inherited landscape as a resource for social returns on investment (Manetti et al. 2015) to be shared and cherished rather than conserved by regulating ownership.
The regulations to open up the parks and private properties of Dutch country estates and manors to the public, in return for subsidy grants and tax advantages, already have a long history (Arnouts et al. 2012). The success of the National Trust in England as a membership organisation was based on the work of the Commons Preservation Society which had fought legal battles to save common land and stretches of countryside in the second half of the nineteenth century (Lowe 2017), a model that was also followed later in the Netherlands with the Dutch sister organisation Natuurmonumenten (Beintema & Beintema 2005; see Fig. 3). Today, profit maximising models in heritage tourism are increasingly being criticised for their neglect of local and universal interests (Alvarez-Sousa 2018). Landscape and heritage conservation institutions in various countries - ranging from public, semi-public to private - are currently focussing on new business models (based on the new paradigm of a sharing economy) that benefit from local resources, particularly through tourism (Romao & Neuts 2017; Zavratnik et al. 2018) and urban farming (Pölling et al. 2017), in a more balanced way.

Further examples include urban farming initiatives all over Europe and beyond (Mok et al. 2014; Pölling et al. 2017) as well as environmental cooperatives in the Netherlands (Termeer et al. 2013; Tregear & Cooper 2016), rewilding projects (Pereira & Navarro 2015), and the huge commitment of many landscape volunteers and stewards, especially in the UK, Norway and the Netherlands (Raymond et al. 2016). In all of these examples, cultural heritage and natural heritage are considered as inherent values of the landscape. They represent inspiring bottom-up actions of citizens and landowners, within an open governance context, to take responsibility for the heritage present.
Reflection and conclusion

It is not due to the lack of appreciation that people (inhabitants, land managers, tourists, and landowners alike) fail to actively foster natural and cultural heritage values in the landscape, but rather, it is the lack of awareness that a sustainable future for these values is far from secure, even when market-based instruments are being used for safeguarding public goods (Cooke & Moon 2015; Ruoso & Plant 2018). Increasing awareness about the entire chain of effects of land use change - including environmental costs of transport, energy consumption, pollution, weathering and wearing, and disruption of local communities - may lead to the revaluation of landscape commons. Since European governments are generally not very keen on community-based initiatives that supposedly undermine private property rights, awareness raising will have to come from bottom-up approaches. This is a clear task for the research community as well, to provide credible information and critically follow the promising initiatives in close cooperation with citizens’ organisations and land managers.

In accordance with the philosophy of the Florence Convention (COE 2000) and the Faro Convention (COE 2005), heritage is everywhere, including everyday landscapes. This paper may have made clear that to prevent the gradual vanishing of today’s museum landscapes figuring as tourist traps rather than as living landscapes (Gullino & Larcher 2013), the heritage discourse in landscape management practice should be much more about the future than the past (González 2015). This builds upon the idea of landscape biography, aiming at “a better integration of historical landscape research with urban planning, landscape design and public participation in local and regional developments” (Kolen et al. 2015: 21). Clear visions are needed to persuade the decision makers to invest in a more equitable and sustainable appreciation of the embedded natural and cultural heritage. Since today’s globalised market does not seem capable of sustainably managing heritage values in the landscape, a focus on rights of use instead of ownership rights is needed (Ferwerda 2015). Land can be owned, not landscape (with its embedded natural and cultural heritage). For the common good that landscape embodies, non-governmental organisations will need to take the responsibility, implying a clear knowledge brokerage challenge for the specialists and academics, and for museums and landscape observatories! Natural and cultural heritage are two sides of the same coin, together allowing identity to develop (Gullino & Larcher 2013). New landscape commons may be the carriers of such identity.

References


Lowe, P., 2017. The rural idyll defended: from preservation to conservation, in: G. E. Mingay...


Impact of the CAP on Archaeological Heritage. Cause & Remedy?

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Abstract
This paper seeks to summarise the origin and evolution of the Common Agricultural Policy (CAP) in terms of the impact its policies and measures have had - and continue to have - on archaeological features and sites situated on arable land. The effects have been very obvious in some cases, less visible in others, but invariably significant. At the same time, the European policy on agriculture and rural development, and the Treaty provisions for the CAP can also present solutions and mitigation measures for the problems. Some examples will be presented within this paper, along with a forecast for the next programming period (2021-2027).

The authors are members of the EAA and EAC working group on Farming, Forestry and Rural Land Management. One of the aims of this working group is to improve the management of archaeological heritage in those areas.

Keywords: Policy, Common Agricultural Policy, Heritage Management, Stewardship

Introduction
The Burren Farming for Conservation Programme in County Clare, Ireland, nicely illustrates that modern agricultural practice with a view to making an economic return from any particular farm holding does not necessarily have to impact negatively on archaeological features and sites. The Burren Programme is a pioneering locally-led agri-environmental scheme which aims to conserve and support the heritage, environment, and communities of the Burren (Dunford 2016). It aims to ensure the sustainable agricultural management of High Nature Value farmland, contribute to the positive management of the Burren landscape and cultural heritage, and improve water quality and water use efficiency. Due to the variety of priority habitats it contains, including limestone pavement, orchid-rich grassland and turloughs, most of the Burren is also designated as part of the Natura 2000 Network under the EU Habitats Directive.

The Burren Programme has pioneered a novel ‘hybrid’ approach to farming and conservation which sees farmers paid for work undertaken and, most importantly, for the delivery of defined environmental ‘products’. Its key principles focus on it being farmer-led, with minimal bureaucratic burdens, and results-based. Farmers are given the freedom to deliver the required outputs using their own skills, experiences, and resources that best fit their own

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farms and circumstances. Farmers have responded positively to their new role as ‘leaders’ in
designing their farm plan; rather than telling them what to do they are asked what needs to be
done. This has led to much better results. Last but not least, face-to-face advice and training
are also a key part of the Burren Programme. Farm advisors undergo an intensive training
course on farming for conservation and best management practices. A lot of effort is put
into increasing the awareness and understanding among landowners of the archaeological
monuments on their land.

The programme was funded through Life, EU’s financial instrument supporting
environmental, nature conservation and climate action projects, and the European
Agricultural Fund for Rural Development (Pillar 1 of the CAP). The main problem with
this approach has been that only land eligible for the Single Payments Scheme, according to
the rules of the CAP, can receive payment under the Burren Programme. In practice that
means about one-third of the Burren farmland cannot be funded due to the presence of
rock outcrop and hazel scrub, as above certain narrow thresholds these features must be
discounted from the area allowed to be claimed as Utilisable Agricultural Area (UAA). This
has a perverse effect, giving farmers a strong incentive to reclaim/improve this ineligible ‘37
percent’ to secure their entitlements, which leads to loss of landscape and natural heritage
values in those relatively well-preserved areas.

In order to understand the working of the CAP and its impact on agriculture, a short history
of the CAP is provided.

The CAP
CAP stands for the Common Agricultural Policy. The general objective of a common policy
for agriculture was first established in 1957 when six countries (Germany, France, Italy,
the Netherlands, Belgium, and Luxembourg) created the European Economic Community
(EEC), the forerunner of the European Union (EU), and the Common Market with the
signing of the Treaty of Rome (Teasdale & Bainbridge 2012). Its context was the overarching
political objective that the widespread hunger and starvation experienced in post-war
Europe would never happen again, *inter alia*, by helping the severely-damaged agricultural
sector to produce more food to aid self-sufficiency (in what was then a largely import-
dependant continent) and guarantee farmers an adequate standard of living. In order to
disallow the normal competitive forces of the market, a key principle of the common policy
for agriculture should be supported through a system of guaranteed minimum prices for
particular products rather than direct aid for farmers’ incomes.

In 1962, the CAP was formally launched. At that juncture, the EEC Member States were all
strongly intervening in their agricultural sectors but these interventions posed an obstacle
to the free trade in goods envisaged by the Treaty. To be able to maintain these strong
State intervention policies, there was a need for them to be harmonised, and responsibility
was transferred to the European Community level. Initially, the common policies were
deemed to be working very well, with the EEC developing into a major producer and
leading global exporter in dairy, meat and grain, as well as other products. However, by the
1970s and particularly in the 1980s, it became increasingly evident that overproduction was
actually being encouraged and incentivised. Also, a transition towards more intensive and
industrialised agriculture was induced. The results were large product surpluses known as
butter mountains, milk, and wine lakes (Grant 1997), associated environmental problems,
and criticism about the costs to community taxpayers (European Commission 2012).

In the following years, different measures were taken to stop the overproduction. Probably the best known of which are the ‘set-aside’ programmes and the ‘production quota system’. This gradually reduced the huge product surpluses.

A first major change to the CAP came from the MacSharry Reform in 1992. Farmers no longer received support in relation to the products they produced, but relative to the area they farmed. It was only at this point in 1992 that making provisions for agri-environment schemes became compulsory for Member States, a first wary step in widening the scope of the CAP. However, participation remained voluntary for individual farmers. General provisions for afforestation and related forestry development schemes were also introduced (Batáry et al. 2015).

In 2000, the EU faced some major changes with preparations for the eastern enlargement of the Union. Plans for this expansion were set out in the Agenda 2000 action programme, which resulted in a new financial framework and new structural funds for the years 2000 to 2006. The Rural Development Programme became formalised as the so-called ‘second pillar’ to cope with important socio-economic and demographic changes affecting rural areas. It was agreed that greater emphasis should be given to environmental policy objectives and the multi-functional role of the European model of farming, again, a further widening of the CAP goals (Augère-Granier 2015).

With the mid-term review in 2003, direct payments were decoupled and cross-compliance was introduced. In order to be eligible for support, farmers were obliged to meet requirements regarding nature, water, and animal welfare.

In 2005, a new European agricultural fund was set up to finance the EU’s rural development policy and national Rural Development Plan actions. In 2008, the so-called ‘Health Check’ of the CAP further boosted the decoupling in the direct payment system. This reform also increased the resources allocated to the second pillar, the pillar in which the ‘wider’ agricultural goals could be supported.

The current programming period, starting in 2014 and running until 2020, is characterised by the ‘greening’ of the CAP. Farmers now receive the green direct payment if they can show that they comply with three obligatory ‘greening’ practices which are good for the environment: crop diversification (planting a greater variety of crops to make soils and ecosystems more resilient), the dedication of 5% of arable land to areas beneficial for biodiversity, i.e. Ecological Focus Areas (EFA), and maintaining permanent grassland to support carbon sequestration and protect biodiversity. The agricultural fund for 2014 to 2020 is worth €100 billion, with a further €61 billion of public funding in the Member States themselves.

**Outlook for the next programming period 2021-2027**

On 1st June 2018, the European Commission presented the latest legislative proposals for the CAP. It continues to support farmers and rural communities, leads the sustainable development of EU agriculture, and reflects the EU’s ambition on environmental care and climate action. Member States are given greater flexibility and responsibility for choosing how and where to invest their CAP funding in order to meet goals set at the EU level.
The new CAP will pursue the following specific objectives:

(a) Support viable farm income and resilience across the EU territory to enhance food security;

(b) Enhance market orientation and increase competitiveness including greater focus on research, technology and digitalisation;

(c) Improve farmers’ position in the value chain;

(d) Contribute to climate change mitigation and adaptation, as well as sustainable energy;

(e) Foster sustainable development and efficient management of natural resources such as water, soil and air;

(f) Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes;

(g) Attract young farmers and facilitate business development in rural areas;

(h) Promote employment, growth, social inclusion and local development in rural areas, including bio-economy and sustainable forestry;

(i) Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare.

This might give the impression that landscape is not just present but prominent in the new Regulation. However, when looked at in detail (see Art. 43 of the Regulation proposal), there is no obligation to include specific actions regarding landscape. Member States are only offered the option to organise interventions regarding landscape, including historical features. As a consequence of this approach, when there are competing claims for measures and actions around climate change mitigation and adaptation and the environment and the sustainable management of natural resources, there will be even greater difficulty for heritage and archaeology managers to influence the development of the national Strategic Plans. Also lobbying by farmer representative bodies in support of certain actions or budgetary allocations over others will lead to an even smaller budget for landscape measures.

Impact of the CAP on archaeology: cause

Agriculture has an enormous impact on land use in Europe. About 11 million farms cultivate an average of 16 ha/farm, resulting in 175 million ha or 40 percent of Europe. As a comparison, about 43 percent of Europe is forest land or 182 million ha (European Commission 2018). Since archaeological sites in towns and villages are in danger and often already damaged by continuous development and building phases, the majority of the best-preserved sites are found precisely in these rural areas.

The Monuments at Risk Survey states that 10 percent of the archaeological sites in farmland in England is destroyed and 40 percent is damaged (Darvill & Fulton 1998: 128-135). Other studies estimate that more than 30 percent has been lost through agriculture (O’Sullivan et al. 2001: 17). Pressures by agriculture and forestry are far greater than the pressures of development but are not subject to assessment and mitigation through the spatial planning system.
Obvious and direct effects of the CAP are linked to the intensification and industrialisation of agriculture resulting from policy choices. Farms became bigger and more specialised. Fields became larger due to bigger and heavier machines, resulting in loss of boundaries and small landscape elements. Ploughing depth increased and the practice of sub-soiling became more widespread to mitigate soil compaction caused by heavy machinery (Fig. 1). When financial support was linked to the amount of area cultivated, the more marginal fields were drained, planed, ploughed, and fertilised. As a result, the overall erosion increased (Fig. 2) and hitherto relatively undisturbed soils were damaged. Around 13 percent of arable land in the EU is estimated to suffer from moderate to high erosion. This equates to an area of 140,373 km². Mean rates of soil erosion by water in the EU amounted to 2.5 tonnes per hectare per year (Panagos et al. 2015).

There are also less obvious, indirect effects of policy choices being made. Some of them are historic, but even at present and for the future it is important to consider the type of choices being made. In the recent past, one important factor to consider was the eligibility of crop type for income support. Depending on this, farmers chose their cultivation plan. Considering the increased erosion of crops such as potatoes, carrots and beets, this had an impact on the preservation of archaeological sites (Ruysschaert et al. 2004: 469-475). On the other hand, by changing the criteria for support from crop type to area, farmers expanded their holding area and started to put marginal fields to use too. Another example is the abolishment of the set-aside agreement, which was often applied to archaeological sites known as cropmark sites (subsurface archaeological sites only visible from the sky because of the different coloration of vegetation due to draught stress).

Figure 1. Archaeological remains of a Roman villa wall being ripped up by ploughing near Tienen, Belgium. Notice how close to the surface archaeological features are. (© VLM).
When those fields were turned back into arable land, they were often ploughed deeper and resulted in further degradation of the archaeological features. Somewhat similar is the interpretation of ‘permanent grassland’ by each Member State. Of course, it makes a huge difference if the area of permanent grassland has to be maintained at field level, farm level or regional level. A final example is the definition of Ecological Focus Area, to which the Pillar 2 support is defined; when archaeological structures or ancient field boundaries are also taken into account, it can make a big difference for farmers to maintain these structures or to set them aside.

**Impact of the CAP on archaeology: remedy**

At the same time, the CAP makes it possible to mitigate some of the negative impacts. It can even provide a good framework for better protection and management of archaeological sites under arable land.

An ‘obvious’ example is cross compliance. In order to ensure that all agricultural land, especially land which is no longer used for production purposes, is maintained in Good Agricultural and Environmental Conditions (GAEC), Member States must define minimum requirements. These should be defined and take into account the specific characteristics of the areas concerned, including soil and climatic condition, existing farming systems, land use, crop rotation, farming practices, and farm structures. Depending on how the European Commission defines and formulates the standards, Member States will determine how the GAEC are interpreted and what farmers have to do to comply. The European Commission could, for instance, include the phrase “especially on known archaeological
sites” in the standards for GAEC 5: Minimum land management reflecting site-specific conditions to limit erosion.

In the present CAP, all farmers with more than 15 ha of arable land are obliged to hold at least five percent of Ecological Focus Area (EFA), which means fallow land, field margins, buffer strips, hedges, and trees. If, for instance, the European Commission gives the implementation of EFA on known archaeological sites a higher weighting factor, this could help heritage managers in persuading farmers to take archaeological sites out of cultivation.

Member States are also obliged to set up a Farm Advisory System for helping farmers to better understand and meet the EU rules for the environment, public and animal health, animal welfare, and the GAEC. Member States can determine who gets access and what advice is provided. Why not choose a more holistic approach on farm holding level, taking agricultural, ecological and heritage-related aspects into account?

One of the most important instruments from the CAP Regulation is the agri-environment scheme, designed to encourage farmers to protect and enhance the environment on their farmland by paying them for the provision of environmental services. Farmers commit themselves to adopt environmentally-friendly farming techniques, for a minimum period of at least five years, that go beyond legal obligations. In return, farmers receive payments that provide compensation for additional costs and income foregone as a result of applying those environmentally-friendly farming practices in line with the stipulations of agri-environment contracts. Agri-environment measures may be designed at the national, regional, or local level so that they can be adapted to particular farming systems and specific environmental conditions. This makes agri-environment a targeted tool for achieving environmental goals. In the past programming periods, England and Ireland have had stewardship schemes that provided options for ‘keeping the character of the countryside’ and ‘preserving features important to the history of the rural landscape encouraging educational access’, which have been a huge support for the management of landscape and sites.

Conclusion
The CAP has (had) an enormous impact on the scale and intensity of agricultural practice and land management, and as such, mostly a negative impact on archaeological heritage. When looked at in detail, many positive examples can be found too, but these measures are often small-scale and depend on goodwill and private action. Most of the negative impact on archaeology is the result of political choices being made by Member States in which the archaeological heritage has not been taken into account. To change things for the better, the CAP should also be used as an important instrument. Raising awareness about the impact of the CAP on heritage - and how the CAP can be improved - is a starting point that could turn the tide. By making this shift, the CAP can become more sustainable and also compliant with wider environmental goals, including the preservation of archaeological heritage.
References


Connecting the Dots: Integrating Cultural and Natural Resource Management in the United States

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Abstract
Landholding agencies in the United States are under increasing pressure to integrate cultural and natural resource management approaches at a landscape level and to do so earlier and more comprehensively in planning processes. How to integrate management practices is poorly understood, however. An impediment to integration is that the laws, methods, and tools used in cultural and natural resource management differ significantly. Natural resource management protects or rehabilitates habitats and ecosystems that support endangered species, while cultural resource management focuses on identification and protection of individual sites. Agencies need to shift the focus from managing sites to defining cultural landscape elements and their relationship to natural resource management units and concerns. We suggest that agencies use archaeological predictive modeling, resource classes, and paleoenvironmental and cultural historical information to geospatially define cultural landscapes, predict resource distributions and values, and identify opportunities and protocols for collectively managing cultural and natural resources. As the United States faces increasing deregulation and limited preservation funding, we believe an integrated approach will be critical in preserving and protecting both cultural and natural heritage.

Keywords: Archaeological Modeling, Cultural Resource Management, Natural Resource Management, Landscape, Planning

Introduction
Many cultural and natural resources in the United States are managed by government agencies, such as the U.S. Bureau of Land Management (BLM), U.S. Department of Defense (DoD), U.S. Forest Service (USFS), and the U.S. National Park Service (NPS). Often, a single office within a land-managing agency oversees the management of both cultural and natural resources. Despite this, cultural and natural resources are managed separately, with little coordination, each following a separate set of laws, guidelines, and procedures. Land-managing agencies are beginning to recognize that this approach is costly and inefficient and that integration is necessary, but agencies are entrenched in existing practices and do not know where to begin. Integration requires agencies to adopt new practices that take advantage of emerging technologies and expanding information resources, as well as methodological and theoretical developments in environmental and social sciences. Perhaps most importantly, integration requires that: (1) natural resource management (NRM) approaches (Chiras and Reganold 2014; Chapin et al. 2009; Deal 2017) acknowledge the fundamental and integrative role that human activities have played within sustainable habitats and ecosystems; and (2) cultural resource management (CRM) (King 2011; McManamon 2018; Sebastian and Lipe 2010) abandon its...
reactive focus on individual projects and sites by adopting a proactive, relational, landscape approach.

Historic Landscape Characterization (HLC) has been used successfully in England and other countries to characterize all areas of a landscape according to their historic and ecological characteristics as currently manifested, in order to identify and manage landscape change (Barrett et al. 2007; Fairclough 2002, 2003; Fairclough et al. 1999). We suggest (in a similar manner to HLC) that landscape elements, such as areas where economic plants were procured and processed, can be geospatially defined and combined with archaeological locational, significance, and impact models to develop a cultural landscape model that predicts within a geospatial framework the structure and function of a cultural landscape as well as the significance and vulnerability of the resources contained within it. Cultural landscape models can then be intersected with NRM models and planning units to identify where CRM and NRM concerns converge and diverge and to identify potential management conflicts and synergies. This kind of modeling framework will allow agencies to open a constructive dialogue among stakeholders, planners, and land managers that considers cultural and natural resources together over broad areas and across multiple jurisdictions for long-term conservation and heritage preservation.

The Management Problem
Federal agencies in the United States are under increasing pressure to make their CRM and NRM programs more efficient and cost-effective. Although better integration of resource management early in the planning process has long been advocated, rarely has this objective been achieved. One impediment that is often cited for CRM’s reluctance to integrate with NRM is the legal requirement by Federal agencies to consult with stakeholders, particularly Native Americans who have ties to the land that is being impacted, and regulatory agencies, such as the State Historic Preservation Office (SHPO). While the process of consulting on cultural resources can be time-consuming and difficult, it is not clear that integrating natural resources into the process would make it any more difficult. An integrated approach might actually be easier. Native Americans often conceptualize both cultural and natural resources holistically from a landscape perspective. Indeed, Native American perspectives are in greater alignment with an integrated landscape approach than they are with current resource management practice. Regulators are largely concerned about not making mistakes and ensuring that important sites are not missed or not adequately treated. This concern emphasizes individual project review, but comprehensive planning may actually alleviate regulator concerns by considering the entire resource base as a whole, instead of only those resources within the current project area.

So why has there been so little interest in integrated NRM and CRM plans? Part of the problem is that different sets of laws govern the protection and treatment of cultural and natural resources. Most CRM in the United States is compelled by the National Historic Preservation Act (NHPA) of 1966. Natural resources are considered under the National Environmental Policy Act (NEPA) of 1969 or the Endangered Species Act (ESA) of 1973. These laws are significantly different in terms of how they operate and have allowed agencies to manage and treat cultural and natural resources following disparate management practices and approaches.

Another fundamental difference between CRM and NRM programs rests in what is being
managed. NRM efforts focus on conserving endangered species, not by managing the species or individuals themselves, but by managing key components of the habitats and ecosystems that sustain them. This conservation approach allows for broad issues that tie multiple resources together into a coherent ecological system to be addressed. CRM efforts, by contrast, focus on identification of important historic properties on a project-by-project basis, determining the ways in which individual resources are significant, and considering what to do about them if they will be impacted. Since the passage of the NHPA in 1966, CRM programs have conducted hundreds of thousands of projects and have recorded over a million archaeological sites, at a cost of tens of billions of dollars (Altschul 2016a; Altschul and Patterson 2010). Even though the law allows recording and managing large numbers of archaeological sites as parts of historic districts or as cases representing the same or similar cultural phenomena (i.e., in a multiple property documentation form), the reality is that individual archaeological sites are the subject of protection and management. The result of current approaches to CRM is a ‘measles’ map of thousands of isolated dots, with the management focus on avoiding each dot, if at all possible.

In today’s CRM, there is little consideration of how sites are related to each other or to natural resources. Significant cultural resources that could be impacted by a project are either avoided or mitigated. It is not that the environmental and historical context of a site is irrelevant; indeed, context is everything in archaeological interpretation, including in CRM. But we do not manage the importance of a site or its historical or ecological context, we manage its physical properties. We might, for instance, consider a site used to process resources from a particular plant community well-managed if within the boundaries of the site the artifacts and features are avoided, even if all the surrounding plants, which were the focus of human behavior at the site, are destroyed. Or, we might consider a series of related sites individually as having little or no information potential and thus, to be of minimal management concern. When considered collectively as part of a coherent settlement pattern, transportation system, or resource processing and procurement system, by contrast, those same sites may be considered important in their ability to reveal information about an activity organization that would be largely invisible when investigated and interpreted at the level of individual sites. Asking whether an individual site can inform on a research question or satisfy a stakeholder concern is quite different from asking whether a collection of interrelated cultural and natural resources can address important research issues or stakeholder concerns.

In short, current CRM practice conceptualizes and treats cultural resources as discrete, bounded entities whose physical contents can or cannot provide information about the past, largely in isolation of their social and ecological landscape context. Developing integrated, long-term plans is difficult with such an approach. Creative mitigation approaches that set aside archaeological reserves, synthesize existing data, or disseminate important findings to the public are rarely undertaken (Altschul et al. 2018; Lipe 2010; Mayro and Doelle 2018). The consideration and treatment of historic properties in isolation, according to an ad hoc, reactive approach, does little to preserve the resource qualities and contexts that make cultural resources important. Tools, methods, and strategies are needed that can improve preservation outcomes by considering sites within a relational, landscape context.

We believe that CRM needs to transition from its traditional site- and project-based focus to a long-term, landscape-level focus that is integrated with NRM landscape approaches.
This will allow CRM and NRM efforts to identify management conflicts and opportunities, adapt to changing conditions, and to consider resources from a broader, holistic, and more inclusive regional context. Mitigation measures should address entire classes of resources and pursue research and preservation problems relevant to multiple projects and stakeholder concerns. Instead of asking, what happened here? Or, how were these stone tools used? We need to ask, what did humans value in this region? How did they place themselves in relation to the area's natural resources and how did they interact with, manipulate, manage, and rely on those resources? How did interactions and relationships among people and resources change over time, and why? We need to identify effective means to study, interpret, and preserve cultural heritage at the scale of landscapes rather than at the scale of individual sites.

Why Integrate Cultural and Natural Resource Management?

There are several reasons why management of cultural and natural resources in the United States should be integrated. First, the divide between nature and culture is artificial. Cultural resources are treated independent of related natural resources. NRM approaches interpret human influence primarily as a disturbance regime that negatively alters and perturbs the structure and function of natural habitats and ecosystems, as if the healthiest habitats and ecosystems are those in which human influences are absent or have been removed. Yet, archaeologists and landscape ecologists increasingly understand this dichotomy to be false and empirically unjustifiable (Taylor and Lennon 2011; Wu 2010). Globally, virtually no landscape is independent of human influence. The impact of human activities on many aspects of the environment has been widespread over a long period (Amarosi et al. 1997; Butzer 1982; Denevan 1992; Grayson 2001; Kohler 1992; Redman 1999; Simpson et al. 2004; Stinchcomb et al. 2011; Van Andel et al. 1990).

Past societies can be viewed as so many completed experiments in human adaptation to particular natural and social environments. As modern society debates how to react to a changing global climate, mass migration, and growing economic inequality, it would do well to see what worked in the past and what did not. CRM can play an important role in providing a deep-time perspective on the roles that human activity played in the sustainability, resilience, or degradation of habitats and ecosystems. This unique perspective is otherwise inaccessible to environmental scientists who typically work with modern and recent historical data of no greater time-depth than the past few centuries (Barton et al. 2004; Butzer 1982; Crumley et al. 2017; Van der Leeuw and Redman 2002). Do we wish to conserve those habitats and ecosystems that we know about from modern observations and historical records or those that persisted with human involvement for centuries or millennia and that can only be reconstructed through archaeological and palaeoenvironmental study?

Another reason to integrate CRM and NRM is that Native American stakeholders and other traditional communities consider cultural and natural resources together as a unified whole and are frustrated by the focus in CRM on individual sites (Barton et al. 2004; Hood 1996; Van der Leeuw and Redman 2002; Whittlesey 2004; Zedeño 1997, 2000). Necessarily, people place themselves within a landscape to make use of vital resources, such as potable water, specific plant and animal communities, mineral sources, productive soils, lakeshore and wetland habitats, and landscape features - such as mountain peaks, water sources, or earth fissures - that represent important social and economic values. Tribes are interested not
only in archaeological sites but in the water sources, minerals, plant species, soils, habitats, and landmarks to which those sites are related. Collectively, all of these resources are seen as forming the basis of a Tribe’s way of life and social identity, as well as that of their ancestors, to the extent that what might be considered a natural resource, such as a spring, could also be considered a cultural resource. People use environmental resources to sustain themselves, but they also alter and manage aspects of their environment (Harkin and Lewis 2007; Johnson et al. 2012).

Ultimately, landscape-level resource management requires a consideration of how resource patterns and relationships vary by management problem, scale, and units of analysis. The spatial, temporal, and social scale of a landscape depends on the scale of resource patterns, social activities, and ecosystem goods and services under consideration (Crumley and Marquardt 1990; Heilen 2005; Heilen et al. 2008; Wandsnider 1998). As Doelle et al. observe:

“…One might think of landscapes as encompassing the land and resources needed to support a particular community, ethnic group, population, or technological system. Ultimately, the scale and shape of a landscape is process-and problem-oriented. The size and configuration of a hunter-gatherer landscape for a pre-agricultural time period may be of a different size and shape than a later agricultural landscape. Thus, individual regional planning efforts in archaeology will likely have to consider multiple landscapes and may also need to consider, where possible, multiple spatial scales.” (Doelle et al. 2016: 120).

We are not suggesting that landscapes need to be defined and managed as discrete, monolithic units much like how individual sites are defined and managed, only at a larger scale. What we are instead suggesting is that federal agencies manage cultural and natural resources together within a geospatial framework following a landscape perspective. The importance of such an approach is that it can support both project planning and long-term preservation by acknowledging the diverse values placed in cultural and natural resources as a means to identify management conflicts, challenges, and opportunities.

The Artificial Separation of Nature and Culture

Carl Sauer (1967a,b), a pioneer of landscape concepts in geography, made a classic distinction between cultural and natural landscapes. Sauer envisioned environments that had been minimally impacted by human activities as natural landscapes. Cultural landscapes were the material result of human interactions with natural landscapes. To Sauer, cultural landscapes represented the intersection of culture and the environment in a particular setting, including the built environment. At the same time, Sauer defined a landscape as the historically-contingent material result of the interaction of natural and cultural processes. The components of a landscape mutually define each other, giving rise to their collective organization and relatedness:

“The facts of geography are place facts; their association gives rise to the concept of landscape. Similarly, the facts of history are time facts; their association gives rise to the concept of period. By definition the landscape has identity that is based on recognizable constitution, limits, and generic relation to other landscapes, which constitute a general system. Its structure and function are determined by integrant, dependent forms. The landscape is considered, therefore, in a sense as having an organic quality.” (Sauer 1967a: 321-322).

More recently, archaeologists have taken this interdependence a step further by envisioning
lands as networks of people, places, and resources that enable and regulate the exchange of matter, energy, and information, much in the same way as do ecological networks. As such, a landscape can be conceptualized as an integrated socio-ecological system that sustains and reproduces both ecology and society (Heilen 2005; Heilen et al. 2008; Heilen and Reid 2009; Heilen and Vanderpot 2013; Schein 1997; Zedeño 1997, 2000; Zedeño et al. 1997). Landscape ecologists consider landscape as a mosaic of interacting spatial elements, such as patches or habitats that together form a pattern or process (Hargis et al. 1997; Kotliar and Wiens 1990; Pickett and Rogers 1997; Turner et al. 2001). Landscape elements include both natural features and habitats as well as anthropogenic features, such as roads, dams, settlements, fields, corrals, forts, and many other facilities.

The idea of ‘wilderness’ as an area untrampled by people remains a guiding principle of natural resource management. Yet, there is no such thing as a pristine wilderness. People are a part of their environment. For example, forests in the Border Lakes region of the United States and Canada that have been designated ‘wilderness’ would not exist without the intervention of fire management by First Nation Tribes (Larsen 2018). The false premise of the pristine wilderness leads to the erroneous conclusion that the ideal state of natural resources is one where human influence is absent. Yet, the reality is that many of the ‘natural’ systems we seek to conserve and restore are the result of past human tending and stewardship of those resources (Crumley 1994; Crumley et al. 2017). Removing the important role of human influence from the natural resource management equation ignores the long history of ecological entanglement between humans and their environment.

To understand and restore sustainable and resilient natural landscapes and ecosystems, NRM needs to understand the role that humans have played in their form, function, and stewardship. To do this, we suggest that an integrated approach may need to adopt a concept of anthropogenic services that would be analogous to the role of ecosystem services in ecology. By the same token, CRM needs to acknowledge the roles that natural resources have in structuring, sustaining, and reproducing culture and society and their relationship to the sites we seek to preserve.

**Current Status of Efforts to Integrate CRM and NRM**

Agencies and organizations in the United States are advocating that an integrated landscape approach be adopted. Such an approach has yet to be implemented in a compliance setting and methods for doing so are underdeveloped, however.

President Obama’s Executive Order 13653 resulted in the development of a Priority Agenda for Enhancing the Climate Resilience of America’s Natural Resources. The agenda defined a landscape as “a large area encompassing an interacting mosaic of ecosystems and human systems that is characterized by a set of intersecting management concerns. The landscape is not defined by the size of the area, but rather by the interacting elements that are meaningful to the management objectives” (Council on Climate Change Preparedness and Resilience Climate and Natural Resources Working Group 2014: 16). The National Park Service (NPS) defines a cultural landscape as “including both cultural and natural resources and the wildlife or domestic animals therein” (Birnbaum 1994: 1). In a similar vein, the European Landscape Convention (ELC), an international treaty adopted in 2000 by the Committee of Ministers of the Council of Europe and enacted in 2004, defines landscape as “an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors”
These definitions explicitly recognize the interrelatedness of cultural and natural resources in landscape-level management. How to use such a concept in resource management, however, is poorly defined.

Perhaps the most comprehensive attempt to integrate cultural and natural resource management in a landscape perspective was the federally-sponsored Landscape Conservation Cooperative (LCC). In 2009, the US Department of the Interior (DOI) established the LCC program “to provide a collaborative framework that could deliver the scientific information needed for effective management, and catalyze conservation planning and actions across multiple jurisdictions through partnerships” (National Academies of Sciences 2016: 1). The program vision is to foster effective management and conservation of “landscapes capable of sustaining natural and cultural resources for current and future generations” (National Academies of Sciences 2016: 8). A major program goal is to ensure “natural and cultural resources are conserved at large landscape and seascape scales, guided by the collaborative application of science, experience, and cultural or traditional ecological knowledge and the generation of new conservation knowledge” (National Academies of Sciences 2016: 27).

Objectives for achieving this purpose include the following:

- Objective 3-1: identify and develop spatial, biological, and cultural data evaluation tools across the network; and support assessment tools for climate change and climate adaptation planning for important cultural and subsistence resources.
- Objective 3-2: include resource managers, cultural practitioners and Indigenous peoples in framing resource-conservation issues and management objectives.
- Objective 3-3: place focus on cooperating, sharing, cooperative synthesis of data, and communication.

A failure of the program is an over-emphasis on natural resource concerns and the glaring absence of approaches that consider cultural resources. The National Academies of Sciences judged the LCC approach as underemphasizing cultural resources and lacking discernible methods for integrating cultural resources in landscape-level management initiatives. The lack of emphasis on cultural resource management in the development of the program is “why the methods by which the LCCs will be addressing cultural resources are still not clear” (National Academies of Sciences 2016: 21, emphasis added).

The DOI’s struggles with cultural resources are also felt by DOI’s land managing agencies (Clement et al. 2014). For example, both the BLM and the NPS are currently shifting their focus from site-based planning to landscape-scale, regional planning efforts and are actively seeking approaches and input for doing so. These federal land managing agencies are investigating alternative approaches that shift from a project-by-project methodology to a more programmatic and holistic approach that considers the nature and distribution of cultural resources under NHPA and NEPA.

The BLM has recently developed a Landscape Approach to the Management of Public Lands that consists of five components: rapid ecoregional assessment (REAs), ecoregional direction, field implementation, monitoring and adaptive management, and science integration. REAs are essentially geospatial models of species distributions, ecosystems, environmental hazards, habitats, and ecosystems that are used to guide the approach and are analogous to
archaeological models that we discuss later in this paper. Although designed primarily with ecological management issues in mind, the basic intent and method of the BLM’s approach should apply equally well to CRM issues and could be adapted to synergistically address both ecological and CRM issues. However, like the LCC, efforts to include cultural resources in the BLM’s landscape approach are far behind those of natural resources and clear methods for doing so are not established (Heilen et al. 2015).

NPS is scaling up planning and management efforts to focus on maintaining connectivity among cultural resources and natural habitats and to devise standards and guidelines for recognizing cultural landscapes as a historic property type. NPS has recently developed a climate change strategy aimed at managing impacts to cultural resources from a landscape perspective (Rockman et al. 2016).

The integrated management of natural and cultural resources from a landscape perspective is not only a growing concern among federal agencies in the United States, it is also a major issue internationally. For example, in 2013 IUCN and ICOMOS launched The World Heritage Convention the Connecting Practice Project. Recognizing disconnectedness and fragmentation in resource management processes, the project was established to promote integrated landscape approaches to cultural and natural resource management. The primary goal of the project is the following:

“To explore, learn and create new methods that are centered on recognizing and supporting the interconnected biocultural character of the natural, cultural and social values of highly significant landscapes and seascapes” (ICOMOS & IUCN 2015: 2).

Many countries and international organizations are moving toward managing cultural heritage from a landscape perspective and are struggling with some of the same issues faced in the United States. UNESCO, for example, has developed a guidebook for management: World Heritage Cultural Landscapes (Mitchell et al. 2009). In Europe, the HERCULES project has issued policy recommendations for implementing the ELC through an integrated landscape approach to environmental governance and sustainable landscape conservation (Mann et al. 2016). Existing approaches are designed to address the particular laws, management concerns, and historical development of their host countries and, as such, do not necessarily match compliance requirements and resource management needs of CRM and NRM programs in the United States. In short, while many agencies recognize the need, no federal agency in the United States has integrated CRM and NRM; tools and methods for doing so are underdeveloped and unclear; and landscape-level management approaches are dominated by natural resource concerns that ignore or undervalue the role of culture.

Applying a Landscape Perspective in CRM

By applying a landscape perspective, a resource can consist of a constellation of sites and isolates such as those that collectively represent a resource procurement and processing system, a transportation network, or a military theater. One reason for adopting a landscape approach is that it does not focus eligibility requirements or data recovery schemes exclusively on sites, but balances and weights the significance of individual resources with reference to the entire range of material on the landscape as the study universe (Altschul 2014; Heilen and Vanderpot 2013). This way, CRM programs can consider multiple properties together as a class to make creative, programmatic decisions about where and how to place efforts, rather
than spread scarce preservation dollars thinly and reactively, in the same ways, wherever and whenever an undertaking comes up or an agency’s mission changes.

To use a landscape perspective, agencies need to know how sites are related to each other, the built environment, and to natural resources to form a land use system, economic activity, or way of life. The agency must determine which cultural resources are truly important and what is important about these resources. Is it the resource itself or the resources and land use system to which the resource (or resource class) relates? Are all resources of a given type or class of equal importance or value? Do they all need to be treated the same way? Can representative samples and the best examples of important resources be studied and preserved to make the most practical and efficient use of scarce preservation dollars?

Government agencies must abandon a reactive, as-needed approach to CRM and instead consider resources at a landscape scale. This will allow agencies to a) flexibly manage their assets; b) identify management conflicts and opportunities early on in planning processes; c) address the concerns of tribal and other stakeholders by considering resource relationships and interdependencies; and d) incorporate the built environment into its natural and cultural landscape setting. The way we think CRM and NRM can be brought into greater alignment with each other is through geospatial modeling.

The Role of Geospatial Modeling in Landscape-Level Planning and Management

To do so, we begin with our definition of landscape: a naturally bounded region shaped by human interaction into a dynamic mosaic of interacting landscape elements and habitats. Landscapes are not static environments to be managed as never-changing sets of plants and animals but are shaped by changes in environments, climate, and socio-ecological interactions. Our goal is to define the parameters of the complex relationships between natural and cultural elements in a region and then create GIS-based tools that provide transparent and objective guidelines on how best to manage the current set of natural and cultural resources in a particular setting. Historic contexts may discuss landscape parameters relevant to interpreting and managing cultural resources, but unless these are geospatially defined, associated with particular management concerns, and made available within an environmental resource management GIS, there is no clear way to consider these cultural factors alongside natural resource concerns in programmatic compliance and spatial planning. And, there is no unified method for identifying the sensitivity of cultural and natural resources to Native American stakeholders who routinely insist that cultural and natural resources be viewed as a unified whole. When it comes to seeing where cultural and natural resource management concerns converge and can be brought into alignment to streamline management, we are essentially dealing with a black box.

Archaeological predictive modeling has been identified as one means of streamlining inventory, evaluation, and project design that could result in considerable cost and time savings for conducting CRM (Green et al. 2012; Judge and Sebastian 1988). Modeling supports the preservation of cultural resources by identifying potential locations of valued resources early in the planning process and by allowing managers to make proactive decisions regarding inventory, evaluation, and treatment options. For example, models of archaeological sensitivity can be used as planning tools to guide survey efforts by helping managers and planners decide on the level of effort, scheduling, and potential costs of CRM in different areas of installation. Additional kinds of archaeological models can be used to predict site

Modeling has been a useful tool in compliance and planning in NEPA and NHPA. Models establish a broad, inclusive understanding of where sites are known or expected to occur and which ones are likely to be considered significant or to be impacted. What predictive models have done well is identify sensitivities and risks. What they do not often do well within a landscape context is explain the behavioral and cultural relevance of historic properties, particularly historical-period archaeological resources and the historic built environment. Incorporating Indigenous views in predictive models is less a technological problem (e.g. by converting oral information into GIS layers) as much as it is a sociological problem (i.e., building sufficient trust for Indigenous groups to provide this information). It should not be lost, however, that predictive models have been used by managers to open dialogue with Indigenous peoples about why sites are located where they are from their perspective, what sites mean to them, and why particular sites and natural resources are (or are not) important.

The scientific adequacy and managerial utility of modeling archaeological site locations has been illustrated by a series of projects sponsored by the Legacy Resource Management Program (Legacy) and the Environmental Security Technology Certification Program (ESTCP). These projects have shown that archaeological models work well in predicting site location and significance on agency-managed lands; can be successfully refined and validated; and can be integrated into programmatic approaches (Altschul et al. 2004; Cushman and Sebastian 2008; Green et al. 2012; Heilen et al. 2012; Sebastian et al. 2005). Archaeological models can be used to fulfill inventory requirements, anticipate effects, and make proactive, streamlined management decisions regarding where to place CRM efforts. Numerous investigations have explored methods for improving the strength and utility of models by applying a broad array of inductive and deductive techniques to model site location in diverse contexts and have continued to improve (Aldenderfer and Maschner 1996; Chen et al. 2013; Comer and Harower 2013; Kvamme 1989, 1990, 1999; Lock and Stančič 1995; Mehrer and Wescott 2006; Wescott and Brandon 2000; Young 2008; Zeanah et al. 1995; Zeidler 2001).

In response to the growing need to incorporate landscape-level approaches in CRM, the Society for American Archaeology convened in 2014 a Task Force to assess current approaches to regional planning (Altschul 2016b; Doelle et al. 2016). The Task Force recommended that approaches be taken in CRM to move from a reactive site-based, project-by-project approach to a proactive, regional, landscape-level approach to management. What they advocate is that we need to embrace landscape-level archaeological modeling to make better use of decades of accumulated CRM data and to develop transparent protocols for tackling the broad management issues we face today.

Modeling has advanced significantly over the past several decades. There are multiple kinds of models that can be developed to predict where sites are located, how resources will be valued; impacts to sites by change agents such as development, wildfires, erosion, and climate change; and how sites relate to other resources and to their environment. We refer to these as locational models, significance models, impact models, and cultural landscape models.
Locational Models
Archaeologists have been building locational models for a long time (Judge and Sebastian 1988). Locational models predict where particular types of sites are likely to be located. A major advantage of such models is that they allow us to consider planning areas that have not been surveyed or have only been sample surveyed. Most federal land has yet to be surveyed and is usually only surveyed after a project has been planned. Locational models help managers identify sensitive areas before the footprint of a project is decided and to anticipate the kinds and densities of cultural resources likely to be impacted by project alternatives. This kind of information can aid in the identification of areas where especially important site types (such as residential sites or sacred sites) are likely to be located; the identification of areas where common and redundant sites are likely to be found; the interpretation of land use according to site function and temporal or cultural affiliation; and the identification of cases where a site appears in an anomalous location, possibly requiring further investigation. Similar models are also routinely developed for natural resource management. For example, a REA for the state of New Mexico was developed that identifies watersheds at risk based on fire threat, risk to water supplies, forest health decline, risk to fish and wildlife habitat, and economic opportunities. An archaeological sensitivity model was also recently created by the BLM for southern New Mexico and covers many of the same areas as the BLMs REA (Fig. 1) (Heilen et al. 2013). There is no reason why these two maps cannot be used together in long-term planning.

Significance Models
Formal evaluation used to identify site significance in the United States is slow and expensive. As a result, the vast majority of resources have not been formally evaluated. But we still need to know the ways in which the thousands of resources that have been identified are likely to be important and how they would need to be preserved and treated. Models can now be developed to predict resource significance and the ways in which resources can contribute to preservation and research goals (Heilen and Altschul 2016; Heilen et al. 2012, 2016; McManamon et al. 2016; Sebastian 2010). These models use existing data and information on the ways in which resources with particular attributes have been valued in order to predict significance. Rather than identify in a binary, case-by-case fashion whether a site is likely to be eligible or not eligible for listing on the National Register of Historic Places (NRHP) - a key benchmark used in the United States for identifying whether a site needs to be considered in project planning - significance models can predict the relative importance of a site along a sliding scale and the kinds of resource values to which a site is likely to pertain. For example, the U.S. Navy funded development of a significance model for San Clemente Island in California that successfully differentiates thousands of similar shell midden sites according to their research potential (Fig. 2) (Heilen et al. 2016). In developing a significance model, stakeholder input is needed to identify variables that are important to deciding on significance and the ways in which different resource types and characteristics are valued. Heilen and Altschul (2016; see also Heilen et al. 2018) have also devised an experimental measure, referred to as the eligibility index, that they used to assess the relative importance of resource types and characteristics based on prior evaluations of the eligibility of sites for listing on the NRHP.
Figure 1. Example of a model of archaeological site location created for the U.S. Bureau of Land Management in southern New Mexico, United States.

Figure 2. Frequency diagram of overall data potential scores calculated for shell midden sites on San Clemente Island, California, United States (1 = lowest data potential; 5 = highest data potential).
Impact Models
Models predicting impacts to cultural resources can be developed based on historical satellite imagery and models predicting the risk of flooding, wildfire, erosion and other change agents. We like to call these impact models and may also be referred to as vulnerability models. For example, the U.S. National Oceanic and Atmospheric Administration (NOAA) created a series of models of coastal inundation expected to result from sea level rise. These models were used by Heilen and Altschul (2016; see also Heilen et al. 2018) to predict impacts to archaeological sites on the Atlantic coast of the United States so that decisions can be made about which sites to study and preserve before they are lost (Fig. 3). A similar approach was used by Anderson et al. (2017) to assess the impact of sea level rise on coastal sites along the eastern seaboard of the United States.

Figure 3. An example of an impact model predicting the effect of coastal flooding and sea level rise on archaeological sites on the Atlantic coast of Georgia, United States.
Another kind of modeling that could help us to manage resources at a landscape level and connect them to natural resources is cultural landscape modeling. To our knowledge, such models have yet to be developed in the United States, but analogous models have been used in both developing (see Mitchell et al. 2009) and industrial countries. For example, one approach developed by Historic England (the national heritage body for England) to characterize the landscape as it exists today is Historic Landscape Characterization (HLC) (Fairclough 2002, 2003; Fairclough et al. 1999). HLC involves segmentation and interpretation of the entire landscape through the use of aerial photographs, historic maps, and geospatial tools to define landscape elements according to “variations in historic development—the resulting HLC maps look rather like ecologists’ habitat maps or soil scientists’ soil maps” (Turner 2006: 385). The approach is used to guide both heritage management and research in England and, as an experiment, has been successfully applied in the United States at Fort Hood, Texas where the environmental and cultural context is very different than in England (Barrett et al. 2007). Similar approaches have been adopted by other European countries with the establishment of the ELC.

To create a geospatial cultural landscape model, landscape elements that form a cultural landscape can be mapped to include natural features, habitats, and anthropogenic features, such as roads, dams, settlements, fields, corrals, forts, and many other facilities. Mapping out the landscape in this way will help to identify convergence between natural resource planning units and culturally sensitive areas and to understand how different components of the resource landscape are related.

Figure 4 shows a kernel density plot of the distribution of thermal features on the Barry M. Goldwater Range in the desert southwest of the United States (Heilen and Altschul 2014). Vanderpot et al. (2008) argue that the thermal features were used to process native plants, particularly succulents, grasses and other seed-bearing plants, and legumes. The thermal features are distributed linearly along ephemeral drainages, where Indigenous people would have had access to wood for fires and water for camping. The targeted plants would have been found in other parts of the alluvial valleys and slopes of the adjoining mountain ranges; areas identified by the distribution of isolated flaked stones used as expedient tools to collect edible plant parts, such as buds, fruits, and seeds. Many of these same plants are mainstays in the diet of the endangered Sonoran pronghorn. The kernel density map, therefore, helps identify areas where annual plants used by prehistoric foragers once thrived, which are now important habitats for the Sonoran pronghorn, an endangered species protected by federal law.

Conclusions
Cultural and natural resource management in the United States is not integrated but can be integrated through landscape-level planning. To do this, CRM needs to shift from a reactive, site- and project-based approach, to a proactive, landscape approach. This is the same direction that NRM is heading in the United States, but NRM is further along, and in defining landscape approaches have paid little to no attention to the preservation of cultural resource values. The most straightforward route to establishing common ground between CRM and NRM is through archaeological modeling, particularly through the construction of locational, significance, impact, and cultural landscape models in a GIS and their integration with NRM models within a geospatial framework.
Large areas that are sensitive to both natural and cultural resources is a serious management concern. The opposite is also true. Modeling provides a transparent, systematic process for leveraging data to predict trends and outcomes. Modeling products and protocols for their implementation can be readily integrated into spatial planning platforms accessible to land planners. This will allow for shared stewardship opportunities and resource management.
conflicts to be identified early, address stakeholder concerns, and provide for a more streamlined, efficient, and productive approach to resource management.

References


Landscape of visions: the Ekolsund manorial estate, Sweden

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Abstract
Parks and gardens are characterized by constant change and the need to be continuously managed and recreated. Over time, layers of history are built up, reflecting artistic and human ideals, socio-economic factors, technology and practices from different periods. Designed landscapes are archives and often have significant levels of biodiversity. One example is the Ekolsund manorial estate in Sweden, laid out in the seventeenth century in a large-scale project. Buildings, gardens and parks formed part of an overall architectural composition, where representation and display were key elements. With its audacity and grandeur, Ekolsund represents a new approach to landscape design in Sweden. The later development includes an early attempt by King Gustavus III to create landscape gardens and, during the era of capitalist owners, the planting of arboreta. Despite favourable conditions for a restoration of the seventeenth-century designed landscape, this paper argues for a holistic approach, where visions and actions of different agents - that together have shaped Ekolsund - are the foundation. Where cultural and natural values complement each other, requiring collaboration between research disciplines and the cultural heritage and nature conservation sectors.

Keywords: Designed landscapes, conservation, layers of history, cultural and natural values, Sweden

Introduction
Gardens and parks are characterized by constant change and the need to be managed and continuously recreated; this is their very essence. In order to come into being and survive, a designed landscape needs to be defined, planned, shaped, controlled and renewed again and again in a constant process. Over time, gardens and parks build up several layers of history that reflect artistic and human ideals as well as socio-economic factors, technology and practices from different periods. As a consequence, gardens and parks do not only constitute a multifaceted cultural heritage, they are archives in themselves, from which knowledge can be obtained. They generally have significant levels of biodiversity, protected and unprotected, which contribute to their value from a sustainability perspective.

The conservation of gardens and parks has mainly been concerned with keeping and recreating aspects of landscape architecture and horticulture, while natural values and biodiversity have been less in focus. Is it possible, or even desirable, to widen the scope in order to preserve and develop cultural and natural values, so they do not compete, but work together and enrich such a landscape? Does this complexity represent a problem,
or is it an opportunity to create interesting multidimensional landscapes with different values and narratives? This study focuses on the Ekolsund manorial estate, situated 40 km northwest of Stockholm in Sweden (Fig. 1) and the significance of the visions and actions of its occupants over time in relation to the present landscape and its conservation and development. It is suggesting an approach, but is not concentrating on the actual management of the site. The methodology is a survey based on historical maps, written and oral sources, imagery and fieldwork.

Despite later alterations and a need to simplify the gardens and the grounds, Ekolsund is still one of the best-kept seventeenth-century designed landscapes in Sweden. However, as a result of lacking resources, changing visions and neglect over time, the Ekolsund manorial estate can also be described as a ruin with a sense of past grandeur. Instead of a manicured formal pleasure garden with well-defined structures, Martagon Lilies spread and bloom in abundance in the meadows, sheep graze in the woodlands that were once intended for bosquets and the waterworks are visible but dilapidated structures. Many of the seventeenth-century lime trees remain in the avenues as giant witnesses of the past. Their materiality is an important document of the introduction of Dutch lime in Sweden and even in very poor condition, they are habitats for endangered species. In order to understand the situation at Ekolsund and what we can learn from the site, it is vital to comprehend its history and the ideas it has been subject to.

**Transforming the estate of Ekolsund**

The name Ekolsund appears for the first time in 1307 when two letters were sent from the estate by two Swedish dukes, Erik and Valdemar, the younger brothers of Birger, the King of Sweden. At that time the actual settlement was situated on a small island off the shore of Lake Mälaren. The location was characteristic of a Swedish medieval fortified manor: secluded, easy to defend and with direct access to the important waterways. Remnants of a stone cellar and a moat still remain on the site in what later became a peninsula (Björklund 2014: 247). Over the centuries, Ekolsund passed through the hands of members of the Swedish elite and in 1540 became the property of Gustavus I. The King often visited the estate which at that time comprised of 30 homesteads but was soon expanded (Björklund 2014: 34, 242). During
this period, the garden of Ekolsund was probably situated by the water, a little further south from the manor as indicated on a map from 1688. We know that the garden produced a fair amount of apples and pears and that the harvest from the home farm Segersta also included hemp, peas, beans as well as cabbage for sauerkraut (Björklund 2014: 243). Supplies such as beer, bread, butter, sheep, calves, fresh fish, and cereals were delivered to the court in Stockholm (Björklund 2014: 167, 245-246).

Ekolsund remained in royal possession until 1624, when it was donated, together with the nearby Segersta estate, by Gustavus Adolphus to his cousin Åke Tott (1598-1640). Tott was pursuing a successful military career and would end up as a field marshal. After the King’s death in 1632, Tott, who had contracted bad health during the many years in the army, withdrew from war service. He settled down in Ekolsund and repaired and updated the main building. Inventories from 1634 show that the field marshal and his family seemed to live in style with costly interiors (Söderberg 1967: 143), some of which was probably brought home from the war, while others were part of Tott and his wife’s (Baroness Sigrid Bielke) inheritance.

However, Tott was not content with the state of affairs at Ekolsund. He had his mind set on transforming his only estate in Sweden - most of his possessions were located in Finland, then a part of the Swedish realm - into something on a much grander scale. By acquiring land close by on the north side of Lake Mälaren, Tott created a large estate where the centre (Fig. 2), a new manor surrounded by gardens and hunting grounds, was to be built.

Figure 2: The most skillful architects in the country were engaged to create a new scheme for Ekolsund. Jean de la Vallé’s grand perspective from ca 1652. Photograph by Cecilia Heisser/Nationalmuseum. Public Domain Mark 1.0 (CC PD).
further north. The French architect and engineer Simon de la Vallé (d. 1642), at the time working for Frederick Henry, Prince of Orange, was commissioned for the job. Several Dutch master masons were also employed (Noldus 2005:177). De la Vallé seems to have suggested a long main building with protruding pavilions and a large forecourt with lower buildings. However, of the extensive house, only the northern part was built during Åke Tott’s time. (Ellehag 2003: 15, 119-121). A new garden was laid out with a gazebo and regular beds, some of which, according to the accounts, were planted with flowers and boxwood in various decorative patterns (Ellehag 2003: 120; Karling 1931: 431). When Åke Tott died in 1640 due to his poor health, all the building activities came to a stop. An inventory from 1651 mentions that the garden, at that point, contained a large number of fruit trees as well as various vegetables planted in beds. It also indicates parterres with roses and boxwood and ponds - a decorative, but also a necessary element in this marshy area. The park held 52 deer and was equipped with a cottage, probably for the park keeper (Karling 1931: 431).

After mediation with Queen Christina, Åke Tott’s son Clas Tott (1630-1674) agreed in 1652 to give up Ekolsund in replacement of another estate. The new owner was the national treasurer Magnus Gabriel De la Gardie, a keen builder and garden enthusiast. In order to develop and update Ekolsund further, the then leading architect in the country, Jean de la Vallé (1624-1696), the son of Simon de la Vallé, was commissioned to draw a plan. However, De la Gardie fell out of favour with the queen and the estate was returned to Clas Tott.
after only a couple of years. Tott continued the collaboration with Jean de la Vallé with the intention to create the grandest and most splendid manor and designed landscape in Sweden at the time (Fig. 2). In the 1660s, de la Vallé was replaced by his rival Nicodemus Tessin the Elder (1615-1681) in the project. Tessin's plans were based on de la Vallé's concept, probably a consequence of the fact that the construction work with the southern part of the house, gardens and parks were well on its way (Olausson 1997:172). The scheme for Ekolsund, particularly the later plans by Tessin, was on par with other prestigious estates in Europe and in tune with the development in France. Buildings, gardens and parks would form part of the overall architectural composition of the estate, where representation and display would be key elements. The French experience was very much first-hand. Jean de la Vallée and Clas Tott had studied in Paris and Nicodemus Tessin the Elder made an extensive European study tour, which included France, in the early 1650s. Clas Tott also spent a considerable amount of time as a diplomat in Paris.

The many plans, with various alterations produced over the years, are a testimony to the fact that the project was not easy to pull through. The scheme was never to be completed. The central section of the house was never built, only the two large L-shaped side buildings. Bosquets were planted in the pleasure garden, but only on one side of the parterres, while on the other side the rocky terrain with spruce remained, without being turned into cultured nature. The gardens were also intended to stretch further south, but as the construction work was only partially carried out, some of the waterworks were situated in a large area of wooded pasture land, referred to as “The Cow Pasture” on a 1725 map (Lantmäteristyrelsens arkiv B29-2:1) (Fig. 5).

Despite the imperfections, with its scale, audacity and grandeur articulated in long axes, different levels and display of waterworks, Ekolsund represents a completely new approach to landscape design in Sweden. Water in the form of fountains, cascades, ponds and a 570-metre long canal played a major part in the gardens, and some waterworks such as the cascades were novelties at the time (Fig. 3). These important prerequisites were a rich supply of water to the site and skilled specialists, fontaineurs, knew how to construct the complicated system of pipes and reservoirs in order to create self-pressure and supply the many water features. The French fontaineur Pierre Grandmaison was leading the work, but the Swede Erik Hoffwenius was also involved. The correspondence between Hoffwenius and his employer shows how closely Clas Tott followed the work and also gives an insight into the techniques used and the problems that had to be solved (Dahl 1995: 237-238).

An important characteristic at Ekolsund were the double avenues, lime trees planted in four rows, underlining the main axis and connecting the buildings, gardens and the surrounding landscape with Lake Mälaren beyond. The redesign of the landscape would also include kitchen gardens, orchards and a nursery. Clas Tott had a keen interest in garden design and gardening. He would purchase garden books as well as decorative elements for his gardens from the Swedish agent Peter Trotzig in Amsterdam. In 1664, Trotzig would, for instance, mediate not only flower pots in various sizes but several statues including “1 Greek Venus, 1 Apollo, 1 Mercury and 1 Diana and hound to the Swedish count” (Noldus 2005: 173). The latter may well have been intended for the great park, where de la Vallé suggested a rather grand layout with a star-shaped system of avenues and a classical temple in the centre.

The correspondence with Peter Trotzig shows that Tott also ordered large quantities of trees and shrubs. To give an idea about what a large scale operation planting and managing
the gardens was, here are some examples of the imported quantities. In 1661, on one single occasion, 200 lime trees, 300 fig trees, 100 apple trees, 50 plum trees, 500 currant bushes, 500 gooseberry bushes and 1000 rose shrubs intended for Ekolsund was shipped from Amsterdam. Four years later, another large shipment of plants was sent, which included “20 grapevines, half white, half red of the best kind, mulberry and apricot trees”. The letters reveal that Tott did supply himself with plants, sculptures and garden books via Trotzig, but also inquired about skilled gardeners who would like to work in Ekolsund (Noldus 2005: 173).

Inventories from 1670 give us a glimpse of the gardens and its plants. For instance, the description of the lesser kitchen garden close to the south building called the “House Garden” or the “Secret Garden”, corresponds rather well with the plants sent from Holland. Cherry and quince trees were planted as well as apple and plum trees, both grown from seeds and grafted. Vines were climbing against the garden wall, vegetable beds were surrounded by hedges of red and black currants and centifolia roses, and beds with common barberry and wild strawberries by fruit trees and currant hedges. Planted in chests were non-hardy plants, such as stinking bean trefoils (*Anagyris foetida*), common bladder senna (*Culteaa arborescens*), silver ragwort (*Jacobaea maritima*) as well as more hardy species like common laurel (*Prunus cerasifera*) lavender, carnations and other “flowers” (Riksarkivet, Clas Totts samling E 5796).

Clas Tott would spend a fortune on the transformation of Ekolsund, which ruined him in the end. In 1670 he had to use the estate as a pledge, and no more work could be done. When Tott died childless two years later, the project came to a definite halt (Olausson 1997:172). During a process called the Great Reduction in the 1680s, Ekolsund, like many private landed estates, had to be returned to the Crown. To summarize, despite the enormous efforts that were made during almost 40 years to turn Ekolsund into the most spectacular country house in Sweden, neither Åke Tott, Magnus Gabriel De la Gardie nor Clas Tott would ever enjoy the finished result. Little is known as to how the gardens and parks were used by its seventeenth-century owners. However, their visions of an estate, on an almost princely level, turned out

Figure 4. Ekolsund as it appears in *Suecia Antiqua et Hodierna*, a collection of engravings produced with the aim to present Sweden to the world. The artist Erik Dahlbergh’s image is probably representing the owner’s vision, rather than the actual garden at the time. The Royal Library, Stockholm.
to fit the royal country lifestyle well in the eighteenth century (Fig. 4). Ekolsund also became an important source of inspiration for several gardens in Sweden, the royal Drottningholm among them, outside Stockholm.

In royal hands - an escape to the country

In 1716, after some years in the care of bailiffs, Ekolsund was given to the Prince consort Frederick, newlywed to Princess Ulrika Eleonora. By then, a central element in a baroque garden, a large parterre de broderie designed by the inspector of the royal gardens Johan Hårleman (1662-1707), was finally in place. Hårleman, who had worked at both Chantilly and Versailles during his studies abroad and met Louis XIV’s famous garden architect André le Nôtre was well acquainted with the French garden trends (Lundquist 2000: 63; Karling 1971-1973).

A detailed surveyor map from 1725 shows the transformed Ekolsund (Lantmäteristyrelsens arkiv B29-2:1) (Fig. 5). In the very centre, we can see the new parterre in the pleasure garden, which is described as “costly” and “daily maintained”, with its box and clipped spruce trees around the quarters, which offered “a nice prospect”. The description conveys that many of the waterworks were in need of repair, eleven of the six fountains were functioning and only ten of the twenty-five cascades worked. All the water was supplied by a pond at a higher level [the canal], and transported through buried pipes. The “House Garden” was used for herbal plants and various vegetables, while the main kitchen garden was situated further away. This was also where the head gardener’s cottage was found. The map description of the nearby “Pheasant garden” gives insight into the organization of the garden as well as its multipurpose, where utility and pleasure were mixed:

“The pheasant garden is a lovely orchard, where there are all kinds of rare fruit trees, all continuously and well maintained, whatever kind they may be, and which are without distinction are planted in quarters, surrounded by barberry hedges. There are also fruit trees along the paths and the beds with root crops, which contributes greatly to the utility and appealing appearance. The most delicious fruits are yearly distributed to His Majesty the King and the Royal Court according to their needs, while the rest is sold.” (Lantmäteristyrelsens arkiv B29-2:1).

The map explanation also informs us that in the adjacent kitchen garden a variety of root crops were grown every year, which were primarily consumed at the estate, however, the surplus was sold in the open market. The text continues by characterizing the nearby area called Parnassus as an “overly pleasant mount, in the wild woods, which due to its higher situation than the garden, offers a beautiful view through all the surrounding avenues. There are also a lot of pleasant rooms and paths in the wild woods…” (Lantmäteristyrelsens arkiv B29-2:1).

In addition, there was a large nursery, which appeared to have mainly been used for the propagation of fruit trees, but according to the 1725 map description, it had been badly hit by the severe winter of 1709. Extensive fenced-in hunting grounds are also indicated, but according to the description, the Great Park was used as meadowland and contained no more game and the Little Park was used for grazing. Around 1740, King Frederik I commissioned the country’s most well-educated and prominent building and garden architect, Carl Hårleman (1700-1752), son of court gardener Johan Hårleman, to make a new plan for Ekolsund. The problem with the missing middle section of the house had to
be addressed, and the garden completed. The plan shows that Hårleman’s intention was to keep his father’s now slightly old-fashioned *parterre de broderie*, while the rest of the pleasure garden would be updated with a more simplified design. Some of the dilapidated waterworks were to be replaced by carefully shaped grass elements, such as parterres, round beds and slopes and the woodland area on the north side finally turned into bosquets underlining the symmetry and the central axis (Olausson 2000:131-133). Hårleman also made a couple of suggestions for a corps de logis, which were never built. However, a lower exedra shaped stable block was constructed in the forecourt, which connected the two side buildings, and only minor works were done in the gardens.

Frederick I would particularly use Ekolsund to pursue hunting, a favourite pastime, but would also engage in other lines of royal entertainment, including parties and feasts of various kinds. However, in the mid-1740s, the estate was given to the future Gustavus III (1746-1792), who would embrace it as a country retreat and spend a lot of time there as crown prince and monarch (Fig. 6). Ekolsund represented a more relaxed lifestyle with family
and selected circle of friends, a break from the formality of the court life in Stockholm, where a more pleasant, free, merry and cultivated conversation and approach to social life developed (Hennings 1935: 142-145; Hennings 1967: 28, 157). In 1772, Gustavus even introduced a special garment called the Ekolsund attire, only to be worn by a limited group of loyal courtiers and friends during visits. Enjoying the gardens and the landscape was an important part of country life and would include dining al fresco, promenades, excursions and hunts. Ekolsund would also be used for birthdays and other lavish celebrations, visits of diplomats and other foreign guests, and occasional special divertissements such as the three day long tournaments - one of the King’s passions - in the summer of 1776 (Fischerström 1951: 21-22, 102-104; Hedvig Elisabet Charlotta 1908: 17-18, 52-54; Hennings 1967: 119-120; Olausson 1993: 401-402, 545). This is also where he withdrew after his coup d’état in August 1772 and inscribed the words “12 September 1772 returned here from the revolution. Gustaf” in one of the windows in his study at Ekolsund.

Gustavus modernised and redecorated the main buildings and, not long after his first tour abroad in 1770-71, he also devoted a lot of energy to the gardens and parks. In Paris, Gustavus had met with the Swedish courtier and amateur architect Adolf Fredrik Barneckow (1744-1787) who then continued for a shorter sojourn to London where he was taken by the English approach to garden design. On his return, Barneckow worked with Gustavus III on various projects during the 1770s to redesign Ekolsund, which are probably the first attempts at creating a landscape garden in Sweden. Winding walks would be introduced, together with meandering canals and various garden buildings. In some plans, the pleasure garden was subject to change, while in others, areas like the Great Park and the large King’s meadow were to be included and turned into landscape gardens, and as such, integrated
with the existing gardens. Interestingly, even if the plans had been completely implemented, they would still not change the main structures of the existing landscape, but all submit to the seventeenth-century layout. Despite the quest for a new approach, the principles of the baroque landscape would not really be challenged (Olausson 1993: 400-408).

Only a fraction of the intentions was realized. In the pleasure garden, the old embroidery parterre was replaced by a simplified grass parterre and the cascades by ramps. A complicated network of meandering walkways was laid out on the north side of the parterre, while the bosquets on the south side were kept (Olausson 1993: 406-407). The Parnassus was extended and replanted (Olausson 1993: 397). However, once Gustavus III got access to the Drottningholm Palace outside Stockholm in 1777, he lost interest in creating a new garden scheme at Ekolsund. Only a few years later the Swedish garden architect Fredrik Magnus Piper would be back from England and would create garden plans for both Drottningholm and Haga (Olausson 1993: 421-425, 460-474).

**The era of capitalists**

In order to finance new building and landscape projects, Gustavus III sold Ekolsund in 1785. The buyer was the wealthy unmarried Scottish nobleman George Seton (1696-1786), who had successfully established himself as a wholesaler and banker in Sweden (Lazarus 1905: 237-238; Seton 1941: 582-586). In connection with the purchase, George Seton received the patent of nobility in Sweden - still a requirement for owning a manor. The reason for the old and childless George Seton to buy a property of this scale was probably a means to invest his fortune. It perhaps also mirrored a desire to manifest his achievements and establish his family in the new country. Just a few months later, his adopted nephew Alexander Baron Seton inherited the estate, which would stay with the Setons for well over a century, passing down the generations until 1912 when it was sold after the death of Patrick Seton.

Despite the family’s long possession, surprisingly little is known about this period. The impression is that the focus was on agricultural production, which included a substantial dairy production with Ayrshire cattle (Tham 1850: 125). Some of the Setons appear to have spent more time in Ekolsund, while others did not stay there at all. The fact that the family seat Preston was kept in Scotland probably had bearing on this. The mid-century topographical account of Wilhelm Tham briefly mentions an imposing manor surrounded by substantial gardens and parks, however, through the diary of Edla Ulrich (1816-1897), partly written in French, there is a more personal and detailed account. The estate was at that time leased by Carl Gustaf Adlercreutz (1799-1883), who was married to Margaret Seton (1808-1870), the sister of the then owner Alexander Seton (1806-1884) (Söderberg 1967: 147). Edla stayed with her friends at Ekolsund in the summer of 1851 and her diary shows that the property was not all about economy and utility, but used for recreational and representative purposes as well. On one occasion Edla writes that, while the visiting gentlemen were inquiring about agricultural matters, the ladies accompanied by a young lieutenant took a walk to the so-called Parnassus. Edla describes it as “a charming park,” where there once had been sculptures of Apollo and the nine muses. She appreciates the closeness to the lake and wild swans swimming in the water which contributes to la poésie du paysage, the poetry of the landscape. On that note, she continues: “It was in vain, however, that we tried to excite Lieutenant Kraemer, who is a little poet, to improvise something in this place, which, if only for its name, should open up all poetic veins.” (Ulrich & Ulrich
Edla’s accounts convey that the women went for daily walks together in the garden, the grand avenue as well as the wider landscape, sometimes just chatting away, other times discussing literature in the English language such as Charlotte Brontë’s novel *Jane Eyre* or works by Shakespeare. Perhaps after an encounter with the runic stones in the garden (Fig. 7), Edla borrowed a book on Swedish runic stones from the library, and interestingly, John Locke’s *An essay on human understanding*, “of which I would like to know, as much as time permits, while I am here” (Ulrich & Ulrich 2016: 275). Locke’s ideas on the human mind and how we gain knowledge by experiencing the world through our senses was of great importance to the development of the landscape garden, and the relation to landscapes generally from the eighteenth century onwards. Edla and her friend Ebba Adlercreutz went by boat on the canal one evening, “so that we could enjoy the beautiful shores of the Lake Mälaren, enhanced by the effect of the moon that had just appeared. Inspired by the beauty of the evening, we performed a kind of duets, me singing, and Ebba whistling, which she does delightfully.” (Ulrich & Ulrich 2016: 275). It turns out that lieutenant Kraemer had been poetically inspired by the landscape after all, not at the Parnassus, but by the beautiful view of the sunset from the Husby (Sjutolft) church nearby (Ulrich & Ulrich 2016: 276).

After a couple of weeks, Edla Ulrich’s stay at Ekolsund had come to an end. On the day of departure, she got up early in the morning “to have the time to enjoy some of nature, after finishing my packing. I am now sitting at the open window of my room, imbibing the fresh air of the morning and, trying, so to speak, to instill in my soul the impression of the charming sight which extends before my eyes, and which I may be looking at for the last time” (Ulrich & Ulrich 2016: 277). Carl Stefan Bennet’s (1800-1878) undated painting, *Gentry at the Ekolsund Manor* seems to underline the impression of Edla Ulrich’s diary about the way the designed landscape formed as part of daily life (Fig. 8). Despite the straight avenues and grand open view, the garden is informal, rather than formal, and well in tune with landscape ideals of the time. The atmosphere is relaxed, everybody in the little group is comfortably dressed and seems to be enjoying the informality of country life. During the Seton era, fountains, bosquets, steps and several of the ponds disappeared. The terraces were made into slopes and the parterres turned into a large open surface, eventually planted with fruit.

Figure 7. One of the runic stones greeting the visitor by the main entrance leading into the south avenue. The stones were moved from their original locations to the garden in Ekolsund in the 1820s. The inscription says “Gulleif and Kar raised the stone after Andvett rode, their father”. CC0 1.0 Universal Public Domain Dedication.
trees (Hernmarck 1964: 527-528) (Fig. 9). Some of the measures taken were probably due to changing ideals. The formal French garden was completely out of date, but they were no doubt also a testimony to a general lack of interest and economic resources.

From the 1870s onwards, during the last Seton generation, hunting appears to have been a favourite pastime at Ekolsund. The owner Patrick Seton (1849-1911), who was appointed Hovjägmästare (Master of the Chase) at the Swedish court, arranged, for instance, a grand royal swan hunt in 1885 for King Oscar II and his guest the Prince of Wales, later Edward VII (Söderberg 1967: 152). A few years later, 1892, a large kennel was built, designed by Ragnar Östberg, the future architect of the City Hall in Stockholm. Despite the strong ties with Scotland, it seems that Ekolsund was a place of great emotional and symbolic importance to the Seton family. Perhaps a testimony of that is the fact that among the names they chose for their coffee and tea plantations in the colonial Ceylon were not only Preston, Augusta and Bellair, but Segersta and Ekolsund. The latter is still an estate in present-day Sri Lanka (Mogren 2009: 185).

Once the estate in Sweden had been sold to a consortium in the early twentieth century, the land was divided into several estates. In 1917, Ekolsund was bought by the wealthy industrialist Carl Kempe. The home farm and some of the land came with the manor in 1947, however, the agricultural operation was sold, leaving only a small core area surrounding the houses and the immediate gardens (Länsstyrelsen Uppsala län 2016; Söderberg 1967: 146-147).

The buildings, as well as the surrounding landscape, were in a poor state when Kempe acquired Ekolsund. In 1851, when Edla Ulrich visited what she called the vieux château, the south building, Gustavus III’s former apartments were already uninhabited and dilapidated, though in Edla’s mind they still reflected the great events that had taken place in the vast rooms. Like many others, she wrote her name on the wall in the same room as the revolution inscription of Gustavus (Ulrich & Ulrich 2016: 273). The building was even used as a granary for a period of time by the Setons, who inhabited the north building (Söderberg 1967:152). Kempe, however, had his mind set on restoring it back to its former glory. A comprehensive restoration of the south building was carried out in the 1920s, and the rooms were furnished over the years with collected furniture and other objects, many of which from the seventeenth and eighteenth century (Söderberg 1967: 155-164). Carl Kempe belonged to a dynasty of forestry industrialists. With great passion, he created an arboretum in order to scientifically test the suitability of various species as forest trees primarily in the area south of the garden (Fig. 10 a & b). The arboretum was built around a core of coniferous trees planted during the Seton era (Nitzelius 1962: 6-7). Kempe maintained the large pleasure garden and many of the remaining structures such as avenues, ponds, canals and paths were kept and some were repaired. For a long time, the intensive upkeep seems to have been reserved for the area around the two main buildings, where there would be flowerbeds, mowed lawns, ornamental trees as well as a kitchen garden with greenhouses and an orchard (Hernmarck 1964: 525-529; Söderberg 1967: 152). In a description from the 1960s, the cultural historian Bengt Söderberg writes: “We drive slowly through the left avenue. To the right, a whitish undulating cornfield on the vast rectangle of the former fountain parterre, and on the long slope beneath the palace terrace, where cascades gushed down the water stairs 200 years ago, potatoes are in blossom; on the grass there is a battery of four cannons, which probably have saluted many distinguished palace guests.” (Söderberg 1967: 152).
Figure 8. Carl Stefan Bennet’s painting “Gentry at the Ekolsund Manor” conveys a sense of relaxed atmosphere and the informality of nineteenth-century country life. (Photograph by Stockholms auktionsverk) Public domain.

Figure 9. Christmas greetings 1903 on a postcard featuring the former parterres with rows of fruit trees in the garden at Ekolsund.
Since medieval times, the important road between Stockholm and the Bergslagen region has passed through Ekolsund. Iron and copper, produced in Bergslagen and shipped from the capital via the road, formed the foundation of the Swedish economy for a long time (Magnusson 2008:61-65). During the first part of the twentieth century, the road was widened and modernized. The road section around Ekolsund was rerouted without much regard to the historical structures in the landscape. The new road intersected the Great Park, the pleasure garden and the fields in front of the manor, in order to finally connect to the old road through the south avenue. The north avenue that had been an equally important structure in the baroque landscape, tying together the pleasure garden, the parks, the kitchen garden and the Parnassus, was now removed from the wider landscape, making the coherence less obvious. During the Seton era, a new connecting road had been built with a bridge leading over the garden canal, which was replaced by a modern version in the twentieth century (Lantmäteristyrelsens arkiv B29-2:2, Rikets allmänna kartverksarkiv, Husby-Sjutolft J133-11h3h53).

In 1969, two years after Carl Kempe’s death, Ekolsund was listed as a Historical Building due to its historical significance. The regulations stated that the interior and exterior of the buildings should be satisfactorily maintained and were not to be altered without the consent from the Swedish National Heritage Board. The surrounding garden area (called the park area in the document) was not to be built on or in any other way be significantly altered and should be maintained in a dignified condition (Riksantikvarieämbetet 16 Jan 1969). The indicated area, however, does not comply with the outline of the historic landscape but relates to later structures such as the road system and more fragmented land ownership. The

Figure 10a & b. In the twentieth century, Carl Kempe created an extensive arboretum primarily to test the suitability of various species as forest trees. Many trees were provided with specially made porcelain labels. Photograph by Åsa Ahrland.
consequence of which is that only a part of the garden canal is included in the protected area while the south avenue along the public road, the Parnassus and the parks, are excluded. The extent of the protected area has not changed, yet, a greater awareness of the significance of the landscape context can be detected today with the responsible authorities, the County Administrative Board in Uppsala. Regarding the qualities of the Historical Building, they state that: “Ekolsund palace constitutes a coherent entirety with distinct traces of gardens, avenues and parks that extend far beyond the actual palace area.” (Länsstyrelsen Uppsala län 2016).

The area around the nearby Lake Hjälstaviken was a designated Nature Reserve in 1982, particularly due to the rich birdlife associated with the wetlands. The regulations also include conserving biodiversity in general, safeguarding the cultural heritage and aesthetic values, and making the landscape accessible for recreation. The large 800-hectare reserve incorporates, in part, the core of the historic manor landscape of Ekolsund, the former Great and Little Park, the nursery, the area of the former kitchen garden, a little of the garden, the Parnassus and remains of the North Avenue (Länsstyrelsen Uppsala län 2016).

**The era of events - opening up to the public**

In 2001, the Kempe family sold Ekolsund manor to the present owner, Raija Ohlin, who also acquired the old Ekolsund inn by the road. Since then, the south wing, which is the home of the owner family, and the inn have been restored. The pleasure garden is managed with the aim to retain and define the old structures, prohibit further decay and conserve the biodiversity, which includes keeping the former parterre area open and the canal and ponds cleared, removing brushwood and managing and planting trees. A management plan for the approximately 1000 avenue trees in and around the garden, the majority of which are lime trees, has been developed (Fig. 11). Inventories regarding biodiversity show that the old avenue trees are habitat to more than 30 red-listed species (Bengtsson & Harris 2013: 7-8). During the last two decades, there has also been a renewed interest to document and develop the arboretum. The area is dominated by groups of various coniferous and deciduous trees from Europe, North America and East Asia, but also contains individual exotics, such as Amur cork tree (*Phellodendron amurense*), Caucasian wingnut (*Pterocarya fraxinifolia*), ginkgo (*Ginkgo biloba*), tulip tree (*Liriodendron tulipifera*), chestnut (*Castanea sativa*), katsura (*Cercidiphyllum japonicum*) and several species of walnut (*Juglans regia*, *J. cinerea*, *J. nigra*, and *J. mandshurica*) (Ekolsunds slott 2018). The work includes thinning, clearing and planting. In the former Great Park, a plantation of spruce from the latter half of the twentieth century has been removed with the aim to create a landscape with leafy and open pastures as well as groves and woodland (Länsstyrelsen Uppsala län 2016: 47).

After the reintroduction of red deer and fallow deer, the fenced-in area is now managed as a park, although, due to its Nature Reserve status, with regard to biodiversity (Fig. 12).

The aim is to open up the manor and its surroundings by offering a wide range of events built around the cultural and natural values of the site: guided tours of the house, park, tree and bird-watching walks, trap-shooting, hotel overnights, conferences, weddings and other celebrations. In addition, the site is frequently used for film and television productions. The pleasure garden, the arboretum and the Nature Reserve, with the exception of the fenced-in park, are open to the public (Ekolsunds slott 2019). Hence, more or less the whole area is today accessible to visitors in order to explore the history of the landscape and the biodiversity in which it has resulted.
Figure 11. The south double avenue in Ekolsund during winter. The old lime trees constitute a cultural heritage and at the same time a habitat to endangered species. Note the new trees with their watering bags. Photograph by Åsa Ahrland.

Figure 12. In the former Great Park, the twentieth-century spruce plantation has been replaced by a fenced in area with open pastures, groves and woodland as well as reintroduced deer. The park is managed with regard to biodiversity. Photograph by Åsa Ahrland.
Conclusions

It is evident that the designed landscape at Ekolsund today is characterized by a multitude of layers, reflecting visions past and present of the manor and its setting, but also its varying political and socio-economic contexts. Ekolsund was created as a work of art, a display of cultivation and wealth to be enjoyed by aristocratic owners and their guests. The financing was based on income from the wars and the agricultural production of the estates of the field marshals, Åke and Claes Tott. The enterprise is a testimony of an emerging wealthy élite and its need to manifest itself according to the latest fashion during the Era of the Great Powers. In the eighteenth century, Ekolsund was turned into a royal retreat, where country life was enjoyed with less formality and within a selected circle. While the estate still constituted an important income, the economy was mostly linked to politics and the state’s finances. The fact that a successful wholesaler, very much a self-made businessman, despite the pedigree, could buy a major royal manor in the 1780s, was probably an early sign of political change. A feudal structure such as the Swedish nobility’s exclusive right to own manors would cease in 1810, which opened up the opportunity to wealthy businessmen and early industrialists to acquire a country estate (Ulväng 2017: 50-51). Although the production at Ekolsund seems to have been the focus, as well as the financial foundation during the Seton era, paintings and diaries show that the owners and their guests took great pleasure in experiencing the slightly overgrown and dilapidated gardens and the surrounding landscape.

The changes brought about by modern society are obvious when it comes to Carl Kempe and the way he financed Ekolsund. The Kempe family had built up a fortune within forestry in the north of Sweden during the nineteenth century. Carl Kempe was a highly successful industrialist who did not need the income from Ekolsund, but used the earnings from industrial enterprises elsewhere. To him, Ekolsund was a magnificent former royal summer palace that he took on to restore in order to create an exclusive home for himself and his family. Ekolsund was the appropriate setting for his extraordinary collections of Chinese ceramics and other works of art, and equally suitable for the collection of interesting trees in the arboretum. Kempe and his wife are even buried in the Island of Bliss, a remote and never finished part of the seventeenth-century garden.

As a result of the development during the twentieth century, the agricultural potential at Ekolsund, the traditional backbone of a manor, is no longer available. Today nature conservation has become a new and interesting alternative to manage the land. Tourism and hospitality businesses also form a part of the financial foundation. To conclude, Ekolsund has kept its attraction through the centuries, and a key factor has been the relationship to and experience of the landscape and its history. From being private and secluded, only to be experienced by a selected few, it is now open to the general public to enjoy.

Though the original plans never were completed, and there have been later alterations and a need to simplify, Ekolsund is still one of the best kept seventeenth-century gardens and landscapes in Sweden. The overall scheme is more or less intact. Many structures have survived, while others are hardly visible or have completely disappeared. The main avenues still underline the central axis of the gardens and connect the buildings to the landscape. The remnants of the waterworks, such as fountains, cascades, ponds, and the 570-metre long canal, remain important features in the gardens while the layout of the large embroidery and grass parterres in the centre are only suggested by a mowing regime. There are not bosquets, but an extensive arboretum containing around 140 species of trees and shrubs.
Little remains of the kitchen gardens and nurseries. Many of the old trees, in combination with a long history of management of the gardens and grounds (sometimes intensive and sometimes extensive), have provided rich flora and fauna, including great numbers of red-listed species of insects, lichens and fungi.

The landscape at Ekolsund also holds other less obvious dimensions, such as people’s view of nature and other ideas, mirrored in its design and usage by different people over time and periods of decay and dilapidation as well as of renewal and restoration. It constitutes cultural heritage, but it is also a place of biodiversity and other values, which is mirrored in the various legal instruments that have been used to protect and safeguard the landscape. Due to its cultural significance, the manor is protected as a historical monument, which also includes the gardens. The former deer parks now form part of a nature reserve, particularly well-known for its rich and interesting birdlife.

So, how shall the landscape at Ekolsund be approached? One could argue that such an important and unique seventeenth-century landscape, if possible, deserves a full-scale restoration. Many structures remain, the conditions for archaeological excavations and surveys are favourable, and there is a fair amount of seventeenth-century documentation, particularly plans and maps. Many of the requirements for conducting a well-grounded and interesting reconstruction are met. However, the result would only represent one layer in the history of Ekolsund, not the various visions and actions of different agents over time that together have shaped the place. It should also be taken into account that the seventeenth-century scheme was never completed, and the plans were constantly renewed and changed. Therefore, a holistic approach is suggested, focusing on maintaining and visualizing different historical narratives and layers of the landscape. It also includes to conserve and develop a landscape, where cultural and natural values complement rather than oppose each other. The complexity of a multilayered landscape such as Ekolsund is particularly suitable for inventive conservation strategies, which require a continued collaboration between different research disciplines as well as the cultural heritage and nature conservation sectors.

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References


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Heritage - public and expert discourse in the process of heritagization

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Abstract
The debate about “Who owns the past?” has been and still is the subject heated discussion in heritage studies. Deciding what should be protected and what needs special social and governmental attention triggers many questions which are often met with equivocal answers. This article concentrates on a phenomenon framed as heritagization in relevant scholarship. The first section is devoted to the situations in which experts notify the public about the importance of places and historical events. Four case-studies will be discussed. The first two will touch upon cultural and natural heritage sites (Jewish and German heritage in Poland and Rospuda Valley) and show how a group of experts can influence Polish society to build a positive atmosphere around neglected heritage in Poland. The next two case-studies (communist heritage in Poland and Białowieża Forest) present how the situation of conflict between experts and the public may influence the way in which heritage is understood by the society. The case studies will also show how the public renegotiates the meaning of heritage and designates what should be preserved.

Keywords: Heritagization, Poland, Natural Heritage, Cultural Heritage, Conflict

Introduction
In heritage studies, there has been an ongoing debate on the issues connected to the ownership of the past, heritage, and the social perception of heritage (see Carman 2005, George 2010, Hodder 2010, Kobyliński 2011, La Follette 2013). The multivocality and complexity of these matters makes it rather impossible to present the topics in their fullness (see Deisser & Njuguna 2016). As the concept of heritage itself is hard to grasp, the meaning of it and its importance to different groups seem to be even more complicated. Something that may be considered as valuable heritage to some may be thought of as insignificant to others. The issues of forgotten, unwanted heritage (Harrison 2013) and heritage of a social margin, homeless heritage (Kiddey 2017), additionally prove how intricate the problems connected to heritage ownership, appropriation, construction or deconstruction can be.

Nonetheless, all the matters presented above strongly relate to creating heritage and they send us back to the very beginning of heritage, namely, the process of heritagization which involves any actions connected to appropriating, constructing heritage and presenting its importance in and to society (Margry 2011: 335, Milosevic 2017). This is a core process which is brought within the discourse of heritage and which, often unconsciously, is a starting point to any discussion about heritage.

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Taking into account four examples from Poland, this article will present how heritage may be acknowledged in a situation of its oblivion, endangerment or devastation. I will also address how heritigization may come from the public (bottom-up) as well as be inspired by the experts (top-down). These issues will be analyzed on the basis of mutual actions of the public and the experts who work together to protect the common good, focusing attention on situations of heritage conflict between the public and the experts. To present the first issue, I will use the examples of Jewish and German heritage in Poland and the disagreements on the Rospuda Valley. The next two case studies will illustrate how a disagreeable situation between the experts and the public may influence the perception of heritage, its treatment, and how it can trigger social action.

**Heritage experts and society - who are they?**

The terms ‘expert’ and ‘society’ are very broad and may be understood in various ways. Discussing in depth the nature of the many different meanings of the two terms would strain from the aim of this work, therefore, I use the terms ‘expert’ and ‘public’ because they allow me to study the social aspects of heritage in its complexity. Additional problems that must be noticed in this section relates to the fact that when it comes to heritage matters, it is hard to define who is an expert and who is not. The ‘non-experts’ are connected to the large sector of non-governmental organizations, amateurs and activists who deal with heritage on an everyday basis because it is their passion or because they feel that they have a special connection to their country’s past. This creates another important group of stakeholders who need to be described and included in this very general division between ‘public’ and ‘expert’.

Therefore, in the next sections, I will use the following understanding of the two terms. Experts are people who deal with heritage on a professional level. This includes academics, scientists, heritage managers, museum workers and historic/natural preservation officers, as well as foresters and workers at governmental organizations. Moreover, experts are also those who decide over the historical policy from the top-down position, such as politicians, local authorities who might not be experts in a sens of knowledge but have the position to decide over heritage). On the other hand, the public are those for whom heritage is not a matter of profession rather a matter of passion - activists, NGO workers, people passionately studying the past of their region and community - or for whom heritage does not play an important role in everyday life - the so-called ‘lay men’.

**Heritigization as concept**

Within this article, heritage discourse in society is studied using the process of heritigization. The process of heritigization is amplified by the diversity of historical configurations and meanings and it depends on various stakeholders and their approach towards heritage. The term that is used to designate the making of heritage - creating cultural values over places, things, happenings, and marking its importance for society (Murzyn-Kupisz 2012) but also appropriation of certain places, things, events which at a first sight seem to unimportant historically (such as dilapidating contemporary buildings) and presenting them as valuable for specific group of people (Walsh 1992). Within this meaning heritigization is a process of creating heritage that may be acknowledged by the overall public or just small groups of people.
Heritigization also has additional features and touches upon issues relating to politics and social concerns that are linked to heritage creation:

“The heritagization process carries an emotional resonance about underlying values that maintains social order, collective relationships and sense of belonging. By contributing to cohesiveness with others within a group, individual members gain a sense of wellbeing, even happiness, and build self and mutual confidence. This solidarity enables the smooth operation of the social group, but it also has an ideological element and disciplinary function” (Ashley 2014: 40).

Nevertheless, heritigization is the term mostly used in connection to cultural/historical heritage and marking things or practices from the past as important, as processes that values places, people, things, practices, histories or ideas as an inheritance from the past (Ashley 2014: 40). Here I use the concept of heritagization in a broader sense, to understand and explain this process as a whole thus including both cultural and natural heritage. This derives from the fact that values, and the need to protect the common good, relate to the natural environment and contributes in the same way as cultural heritage.

Top-down heritagization process: Jewish and German heritage and the Rospuda Valley in Poland
Experts play an important role in disseminating heritage knowledge among the public. They often translate the cultural meaning of places, histories and artefacts to the people. Experts in many cases also from the top-down position determine the value of heritage and decide what is worth preserving and conserving, and what can be forgotten and neglected. Taking into account examples of the remains of Jewish and German heritage in Poland and the fight to preserve the natural heritage of Rospuda Valley, the following section will show how the heritagization process is triggered by the experts and how the public react in situations of heritage promotion and endangered heritage.

German heritage on the so-called ‘Recovered Territories’ and revival of Jewish culture
The history of Polish territories is marked by international conflict and national unrest. Second World War has had the strongest impact on Polish lands. Poland, at the centre of the world conflict, experienced the repercussions of war up until today. One important change that was brought to Poland after the Second World War was a change of its borders, transforming it into a ethnically homogeneous country - Poles (Zaremba 2012). Before the Second World War, indeed, Polish borders spread over the lands of today’s Ukraine, Belarus and Lithuania. Due to this, Poland was a multicultural and multinational country in which many ethnic and national groups lived. After the Second World War, the situation changed dramatically. Changes at the borders meant that Ukrainians and Lithuanians were no longer living in eastern parts of Poland. Germans who lived in newly adjoined territories of Poland (today’s western part of Poland) fled or were expelled from these lands. The territories were resettled by the Poles who came after being expelled from Ukraine or who voluntarily moved to western parts of Poland from its central territories which were devastated by the war (Halicka 2015). Moreover, Poland was inhabited by around three million Jewish people. They lived mostly in central and eastern parts of Poland and had a considerable impact on the culture of these regions. The Holocaust killed more than two million Jews and thousands flew to other countries where they could survive (Zaremba 2012).

Following the war, for many years, Poles perceived their nation as homogenous, consisting
only of Polish people. During communism, talking about the multiplicity of ethnic and religious groups that lived in Poland was not propagated by the government. It was a time when Poles still needed to prove their rights to the lands in which they inhabited (especially the western parts of Poland) (Mordawski 2015). After the fall of communism, the government was concentrated on country’s independence from Russia. Therefore, many studies focused on rewriting the history of Poland and shedding light on the narrative fabricated by the communist propaganda that were propagated by the communist regime (see Halicka 2016).

Joining the European Union brought new possibilities to Poland and refreshed the memories of the multiethnic country. Many researchers paid special attention to the forgotten heritage of Jewish people (see Polonsky 2017) and started to study issues connected to the Germans living in western Poland before the Second World War (Nodzyński & Tureczek 2015, Stachowiak 2015). To do so, they had to intervene in the lives of local communities and introduce them to the neglected past of the people who also lived in Poland.

Thanks to the wide outreach of such projects, Poles could bring back the memories and stories of the people representing different cultures that also influenced the history of their region. Establishment of local and national museums, preparation of cultural events, articles in books and newspapers, as well as actions of restoration and renovation of heritage, influenced the perception of Polish history and resulted in a revival of heritage and stories from the past that were neglected. Moreover, this revival has gone beyond the researchers’ expectations; places connected to Jewish inhabitance have been one of the most widely known and visited tourist attractions in cities such as Cracow and Łódź. The Kazimierz district in Cracow, which was largely inhabited by the Jewish community, is an important centre of cultural life. Even Steven Spielberg, inspired by Kazimierz district, filmed Schindler’s List there, which had a considerable impact on the popularity of Jewish heritage in Poland. The places inhabited by Jews in the past have been restored and developed into important historic sites. Booming growth in Jewish-themed restaurants, bars, bookstores and souvenir shops can also be seen. This boom has also resulted in a small growth in the Jewish population in Poland.1 Jewish people are coming back to the country of their mothers and fathers or those who stayed in Poland are more open to share the stories about their cultural roots.

The occurrence of researchers and films talking about Jewish history in Poland, the publication of many books about it, the restoration of monuments linked to Jewish culture and the building of museums which promote the history of Jews in Poland (e.g. Polin Museum in Warsaw), caused Jewish communities to be more aware of the value of their heritage, even if it was not directly connected to the history of their own nation. Moreover, the social oblivion of Jewish heritage in Poland over the past decades has gradually transferred into a trend in which having some connections with Jewish society is desired (Kołodziejczyk 2014).

A similar situation to the revival of Jewish heritage in Poland took place in the western part of the country. Parts of western territories (Lubuskie province, Pomorskie province), which were adjoined to Poland after the war, were inhabited mostly by the German people. During the communist times, culture and history of their inhabitants had to be forgotten which would present the Polish roots of the region and show that the western parts of Poland were the so-called “Recovered Territories” which were taken by Germans from the Polish nation (Slavs) (Jasiński 2004). Only recently have researchers concentrated on the remains of German culture in western Poland and shown it in the context of historical events and

the present (see Halicka 2015, 2016, Zalewski & Bielinis-Kopeć 2014). Local communities, encouraged to share their stories of German heritage and their attitude towards it, have been more aware of the impact of German culture on the western lands of Poland. Today, they together with German families who visit their roots, guard this history by protecting the remains of German heritage.

**Rospuda Valley and the conflict over the natural environment in Poland**

Rospuda is a small river that flows through north-western Poland, including the north-western part of the Augustów Primeval Forest wilderness area. The Rospuda Valley is one of the most valuable wetland areas with intact water relations. That is, the bog maintains a steady water level and therefore does not cover the trees or shrubs. It is also under protection due to its rare animals and plants. The musk orchid (*Herminium monorchis*), has been recorded in the Polish Red Data Book of Plants, and Rospuda Valley is the only Polish locality where this plant can be found. Because of its natural importance, the valley is part of the European Ecological Networks Nature 2000, designated under the Directive on the Conservation of Wild Birds as a Special Bird Protection Area (Szymczuk 2009).

Unfortunately, all that protection and conservation did not save Rospuda from the plans to build the Augustów ring road in the vicinity of its valuable resources. The projected expressway would harm the wildlife of the valley through the pollution and noise emitted, not only during the usage of the road but also during its construction. The situation of natural heritage endangerment at Rospuda resulted in a conflict between experts, the public, and international authorities.

It was first the experts who noticed how fatal the consequences might be for building the bypass road so close to Rospuda Valley (Szymczuk 2009). Because the danger of destroying the wildlife was real, ecological activists, as well as expert scientists such as botanists, zoologists, ecologists and hydrologists, protested against the bypass road and wrote letters to the local authorities that ultimately decided on the road’s construction (Szymczuk 2009). The response from the local authorities was negative and they kept building the road. This provoked researchers to put under the spotlight the situation in Rospuda Valley and inform the public about the possibility of losing such an important natural site from the map of Poland. The Polish daily *Gazeta Wyborcza* launched an online petition, which was signed by over 140,000 people, asking the Polish President Lech Kaczyński to respect the law, preserve the Rospuda Valley and direct the Augustów bypass via a different route (Szymczuk 2009).

Of course, the public response was not that straightforward. On the one hand, the majority of people were convinced by the argumentation of experts. On the other hand, inhabitants of the Rospuda Valley region, especially the town of Augustów, needed the bypass road and they were ready to sacrifice the natural environment to improve their everyday life. Activists and others that felt the need to protect the nature in this region came to Rospuda. They camped in the valley and protested against the decision of the local communities. They were supported by the scientific community and the public, and their determination to save Rospuda grew. The battle over Rospuda lasted for almost three years. In 2006, the first plans showed the bypass road through Rospuda. In 2009, the Polish authorities informed the public that the plans of the highway changed and the alternative route that was chosen would not harm the natural heritage of the region.
The conflict of the Rospuda Valley was the first such action, inspired by researchers, to have moved the public to protest in the name of natural heritage protection in Poland. The result of such action was not only saving Rospuda Valley from the negative effects of constructing the road, but also creating a general awareness of the importance of natural heritage and the need to safeguard it in Poland.

**Heritigization as a process inspired by the public: Kęszyca Leśna and the Białowieża Forest in Poland**

Although it may seem obvious, experts show the public what is valuable heritage and what is not, but it is often the actions of the public that triggers the protection of heritage. In such cases, the public interprets heritage in their own way, based on their affection towards it, and the social values that it presents. This section focuses on a situation of conflict between experts and the public, which presents heritage as a process of negotiation between both groups.

**The end of communist heritage in Poland**

Communism brought a new social system and ideology to Poland and as a consequence of it, new monuments and buildings would represent the power of the communist regime. The ideological meaning of raising such monuments was obvious to Polish society and hence they fought against such authoritative action. Even after the fall of communism in the Polish cities and towns, some can still see the monuments connected to the communist era. These monuments, for many years forgotten or treated as part of the everyday landscape, have recently become a point of conflict between the public and experts.

According to the decision made by the Polish government, all monuments that praise the communist era in Poland should be removed from public spaces. Communist times are treated by the representatives of the government as unequivocally gloomy and bad for the country and society as a whole. And as they are mostly accepted by members of the public, monuments representing some episodes and heroes of communism in Poland are not treated with the same negative attitude by the public. Such a situation happened in Kęszyca Leśna, a small village in western Poland. The village was built by the Germans before the Second World War and then in 1993, it was taken by the Soviets for their troops. Today, the village is inhabited by Poles.

In the centre of the village stands a monument representing a crawling Soviet soldier (Fig. 1). The monument was built during the communist era and it was praising Soviet soldiers who were stationed in the village and in other parts of Poland. After 1993, when the Polish people settled in the village, it still stood in Kęszyca Leśna. None of the new inhabitants thought of removing the monument. Moreover, when it was damaged by tourists or young people, it was renewed by the villagers because, as they said, for them the monument is an important part of the village everyday life and history and they do not imagine that place without it (Gajewska-Ruc 2017).

The monument, according to the government and the Institute of National Remembrance (IPN), represented the oppressive times in Poland and was treated by the inhabitants of Kęszyca Leśna as an important part of the cultural landscape of the village. They perceived it as an integral part of the place in which they lived and it played a significant social role.
for them. Namely, it was a meeting point for villagers and a place where they could sit and talk to people. It was the centre of social life for the community who recognize the place as such. Destroying the Soviet soldier’s monument would mean a considerable change in the cultural and historical landscape of the village. Therefore, the Polish government and IPN’s decision to remove the monument was met with strong disagreement. The inhabitants of Kęczyca Leśna opposed the trials and were ready to fight for it in court. For them, the Soviet soldier was not part of the Soviet regime but part of the history of their village to which they felt bounded (Gajewska-Ruc 2017). IPN allowed the citizens of Kęczyca Leśna to keep the Soviet soldier.

Taking into account the case of Kęczyca Leśna, it may be assumed that the effect of experts’ actions was the opposite of what they expected. The experts (mainly politicians) that tried to erase the unwanted history from public spaces made people aware that the remains, after the communist era, may be perceived as heritage and unveiled the social bonds with such heritage. So far, it was only a matter of urban exploration movements (Urbex) which treated the buildings, monuments, and things left by the Soviets in Poland as heritage (see Kobiałka 2016). Therefore, the unintended result of the expert’s decision was again a heritigization process of what was not earlier understood by the public as heritage.

The case of Białowieża Forest

Białowieża Forest is a unique example of a primeval forest that grew on the European Plain.
Białowieża Forest stretches around 3,085 km² on the border between Poland and Belarus. The forest is listed on the UNESCO Heritage Site and the EU Natura 2000 Special Area of Conservation. Białowieża Forest is home to Europe’s heaviest land animal, the European bison, and it is thought to be a land of the most abundant diversity of flora and fauna in Europe. It is also an important touristic attraction in Poland and Belarus (Kossak 2016). On the Polish side, Białowieża Forest is visited by approximately 120,000-150,000 tourists annually.

Białowieża Forest has also been a matter of conflict in Poland between various stakeholders, especially representatives of the Polish government, foresters working in National Forests, the European Commission, environmentalists, and the general public. The conflict started on the 26th of March 2016, when the Minister of the Environment in Poland signed a document in which he agreed to cut down the trees in Białowieża Forest on a large scale, including the areas protected by the Natura 2000 programme. The government representatives explained their decision through environmental and protective issues. Namely, the trees were being eaten by the bark beetles and the only way to stop this massive attack and avoid it from spreading was logging the trees. However, the environmentalists and NGOs questioned the decision, explaining how the bark beetles have been in Białowieża Forest for many years and nothing has happened to the forest. Moreover, there are bark beetles in Belarus, but no one wants to cut down the trees there (Szymczuk 2009).

Shortly after the official signature, the workers at the National Forests started the clearance of trees in Białowieża. This step triggered large protests in Poland and as a consequence, many people came to Białowieża Forest to protect the trees with their own body. Environmentalists and activists put their tents in the forest and guarded the area so that the harvesters could not cut down the trees. Moreover, many scientists wrote letters to the government in which they asked the Ministry to explain the situation and explicitly demanded a halt to the clearance because of the harm it was doing to the natural environment in Poland. Despite these actions, the government and representatives of the National Forests did not listen and continued felling trees. Due to this, seven non-governmental organizations decided to file a complaint against the Polish government to the European Commission in which they stated that the decision made by Minister Jan Szyszko breached the EU “Habitats Directive”, claiming that each action may have a significant impact on the area of Natura 2000 and will need special protection. However, this did not stop the clearance in Białowieża which day by day divided the specialists from the National Forests and the government from the Polish public. This conflict presented an enormous chasm which had existed in Poland over natural heritage and business but had been hidden from the general public so far. Information about Białowieża was covered on the main news channels in Poland, informing the public on the government’s position each day. In many cities, NGOs organized discussions about Białowieża which ended in protests against the government’s actions. Fighting for Białowieża Forest also influenced private companies that used wood. Many of these companies declared that they would not buy the wood coming from Białowieża, and the companies which bought that wood were boycotted by their clients. The conflict over natural heritage transformed into a huge conflict with the government and representatives of the National Forests.

The situation in Białowieża Forest also largely influenced the notion of the ‘expert’ in Polish society. In the end, the public did not know who to trust or who was telling the truth about the situation in the forest. Nonetheless, most of the Polish people were strongly against
the logging, especially the old-growth trees (Kozińska 2017). Białowieża Forest, had to be especially protected; there was no Polish agreement on the devastation of significant natural heritage. Although Białowieża Forest is a significant place for tourism, and its heritage is valued among the Polish and international public, it was the expert’s decision of felling the trees that made Polish society more aware of the history of Białowieża Forest and its multiple natural values. A situation of conflict and disagreement with the decision caused Polish society to take matters into their own hands, showing that heritage was more important to them than any decisions made on their behalf by the Polish government or experts. This situation presents how the process of heritigization may be an unintended effect of expert decision making.

Conclusions
Public and expert voices may differ considerably in the of heritage. Although it may be assumed that experts are those who mark the points under discussion and decide on the meanings of heritage, the case studies derived from Poland show that it is not so straightforward. It is often the public that determines social understanding of heritage and its treatment in opposition to experts’ decisions - as in the case of Soviet heritage in Poland or the Białowieża Forest. However, experts’ actions often trigger society to take care of their heritage. Experts also inspire the public to notice the values of things, places and stories - as in the case of Jewish and German heritage. In this case, the heritigization process was inspired by researchers and their will to rewrite the forgotten multicultural past of Poland. The public, inspired by the experts, could feel the collective relationships and sense of belonging (Ashley 2014: 40) to the culture and nature of the country that they live in.

The meaning of heritage and attitudes toward it cannot be determined by one group - the public or the experts. Clearly, it is not a matter of whether the decisions made from above will always be the right choice or completely accepted. Yet, heritage is an issue that will always need ongoing discussion, which can only be created in an atmosphere of negotiation.

References
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Participatory practices in natural and cultural heritage

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Abstract

Heritage planning in Europe, through the Valletta and Florence Conventions, constitutes a framework for cooperation whereby the public is encouraged to take an active part - an ongoing cultural practice that includes society. Within this paper, I focus on participatory practice as a reflective process of problem-solving in heritage via individuals working together as a community of practice and crowd-based approaches. The recent development of the Environment and Planning Act (Omgevingswet) in the Netherlands, which will legally frame the way municipalities and citizens interact with their environment, is used as a case study to show context-dependent risks associated with the democratic dialogue in heritage planning. Participatory planning is impossible without democratic participation, and there is a risk that the Omgevingswet will merely pay lip service to participatory practice. I analyse engagement with technology and the new law that is not yet operational - with its influence on citizen participation yet to form - that could either have negative consequences or potentially enhance the participatory governance process in the Dutch heritage sector. In conclusion, the medium (Omgevingswet online platform) is the message (integration of sustainable Dutch landscapes in national and regional environmental visions) for online participatory practice in a networked information economy.

Keywords: The Netherlands, Environment and Planning Act, Omgevingswet, Natural and Cultural Heritage, Participatory Practice, Governance

Introduction

Participatory practices in archaeology can be difficult to pin down. There are recent case studies that show how citizens, communities and the public engage with their archaeological heritage (see Thomas and Lea 2014, Moshenska 2017, Jameson and Musteaţă 2019). Public participation can assume a flexible role that includes communities and public spaces, an engagement strategy that is aimed at the general public. But when it comes to natural and cultural heritage, do participatory practices adopt strategies for qualitative and meaningful civic engagement? Or offer a format that could equally enhance heritage discourse? Through an interdisciplinary approach to natural and cultural heritage research, this paper examines new ways of perceiving governance as a theoretical idea and framework for practice and the associated risks and challenges.

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Heritage is not static; it shapes itself around broader spatial developments and cultural changes (Lowenthal 1996). This paper discerns how environmental planning connects to natural and cultural heritage practice. Heritage management that privileges monumentality and site significance tied to time depth, expert judgement and nation-building is a self-referential discourse that has consequences (Smith 2006: 11). And whether or not heritage is threatened by environmental, legal, political, or commercial processes, new initiatives make it possible for (digital) conservation and wider collaboration - the heritage sector’s battle-cry for future generations and preconditions for participatory practice.

Public participation
Heritage dialogue in the Netherlands between public authorities and experts, local residents and other stakeholders is an example of a process referred to as participatory planning (Elerie & Spek 2010: 93). The premise being that setting goals together can formulate policy. The role of science in Dutch policy recognises that academic knowledge plays an important part in the transdisciplinary process when decisions are being made in the Netherlands regarding archaeology (Van der Valk & Bloemers 2006: 30). Active research is specifically recognised as a reflective process of progressive problem solving, which is led by individuals working with others as part of a community of practice (CoP) to improve the way issues and problems are solved (Elerie & Spek 2010: 92). The concept of a CoP, at the core of social theory, is about learning. But learning is more than just acquiring knowledge; it involves ongoing interaction with others to share and collaborate.

A CoP can be viewed as a strategy. It provides a framework to explore learning in organisations and improve upon practices within them. Participatory planning is one example of a problem-solving process where individuals work in teams or as part of a CoP to improve their practice. A CoP enables individuals with diverse backgrounds and interests to productively work together on common goals. Individuals devoted to maintaining, restoring and reviving natural and cultural heritage may form a CoP, cooperating for shared political or economic interests (Adell et al. 2015: 7-18). A CoP for natural and cultural heritage can produce beneficial stewardship through a shared repertoire of knowledge that can also be passed on to new members. The potential challenges of a CoP should also be recognised, including the amount of time available to adequately engage in an activity to reach a specific goal as well as the wider socio-cultural environment in which a project is situated for an effective CoP.

Crowd-based initiatives
When it comes to cooperating on an online platform, the main issue is how participation can be designed to get specific results. This relies on the crowd. Crowd-based initiatives (more commonly known as crowdfunding and crowdsourcing) are strategies for public outreach and participation. These tools can be used to gain project funding and can benefit from the skills of the wider public who have competencies across various disciplines. Over the past fifteen years, there has been a paradigm shift within global heritage discourse. An adjustment that acknowledges the dominant role of experts - defining heritage values and broadcasting knowledge - and moves towards experts actively engaging with citizens, communities and the public to incorporate more divergent voices in heritage.
Recent examples can be seen in the crowd-based campaigns for natural and cultural heritage:

- funding research - the University of Amsterdam has been participating in the renewed crowdfunded excavations at Troy (Van Wijngaarden et al. 2016);
- contributing data - SciStarter, an online community dedicated to improving the citizen science experience for project managers and participants (SciStarter 2019);
- transcription - MicroPasts, an online platform that allows archaeology professionals and enthusiasts to collaborate (Bonacchi et al. 2014);
- field excavations - DigVentures, a social business that specialises in crowdfunding, crowdsourcing and digital methods to increase public participation in archaeological research and heritage projects in the UK, Europe and the United States (DigVentures 2012), and CARE, community archaeology in the Netherlands (CARE 2018);
- environmental monitoring - NASA, an open global inventory of landslides (NASA 2018);
- taking part in publications as co-creators - Zooniverse, enabling people to participate in research fields across the sciences and humanities (Zooniverse 2009);
- monitoring and protecting natural and cultural heritage - SCHARP in Scotland (Graham et al. 2017).

Relationships between experts and the public (including ‘the crowd’) are changing in many sectors, predominantly through the adoption of technology. This, in turn, allows for the flourishing of competing interests and opinions. These relatively new crowd-based approaches have been ‘unlocked’ by technological developments and have provided alternative funding possibilities to public grants. The Internet-based crowdfunding platform has eliminated most distance-related economic frictions normally associated with financing early-stage projects such as acquiring information, monitoring progress and providing input (Agrawal et al. 2011: 3). The use of crowdfunding is also a way to help reduce market failures (Agrawal et al. 2011: 18).

For the cultural heritage sector, engaging in information-sharing and online dialogue begins with an understanding of how information about the past is sought, processed, received, interpreted, associated, subverted and recycled through the Internet (Richardson 2013: 8). Cultural heritage crowdsourcing is an emerging form of engagement that contributes towards shared goals and research, where projects can be a platform for audience engagement, offering a valuable connection to heritage through online collaboration (Ridge 2013: 435).

This does not mean welcoming pseudo-scientific evidence that lacks expert evaluation. It means more opportunities for people to work with their own set of specialised skills from different disciplines, which can bring a breadth of expertise to a project. Crowd-based initiatives might not be for everyone. Creating relationships with the crowd might not be for everyone either. But natural and cultural heritage relates to us and our shared environment, so the values we have and the platforms we use will frame our collective future.
Case study: The Environment and Planning Act (*Omgevingswet*)

In 2016, the Dutch government passed a bill in the Netherlands that will affect the future integration of natural and cultural heritage. The new environmental law, which will come into effect in 2021, merges all regulations into one Environment and Planning Act (*Omgevingswet*). It stipulates that citizens, companies and social organisations must be able to participate in the early stages of the decision-making process with regard to a project or activity (Ministerie van Infrastructuur en Milieu 2016b: 103-104). One of the stated goals of the new act is to make it easier for citizens to set up their own initiatives, allowing them to have more say about their local environment (Ministerie van Infrastructuur en Milieu 2016b: 6). Another is to facilitate public participation (Ministerie van Infrastructuur en Milieu 2016b: 11). The law, however, is not clear on how public participation will be achieved.

Currently, some municipalities have over 100 land-use plans. The Dutch government claims that a single environmental plan for an area will replace multiple zoning plans with fewer regulations because the *Omgevingswet* will make it possible to solve local problems locally (Rijksoverheid 2018). With the new law, tasks will be delegated towards the municipal level. Municipalities will have differing ideas about granting permits and halting soil-disrupting activities in the case of archaeological finds of general interest (Rijksdienst voor het Cultureel Erfgoed 2019). The *Omgevingswet* asks for a new role of the municipalities, not only to be primarily responsible for the physical environment but also adapt to a different cultural attitude of bottom-up planning.

Article 23.4 of the Legislative Bill states that for a period of at least four weeks, all persons shall be given an opportunity to submit comments (by electronic means) regarding a draft project decision during the early exploration stage (Ministerie van Infrastructuur en Milieu 2016a: 73). While citizens are offered the chance, albeit brief, to engage in preliminary plans, there is a presumption that citizens will have the opportunity and digital skills to do so. However, this early form of public participation is about collaborating with stakeholders and discovering the risks and opportunities at the start of a project so that research costs can be decreased, the planning process can be accelerated, and local and expert knowledge can be used at an early stage (Aan de slag met de *Omgevingswet* 2019a).

The Valletta Convention (Council of Europe 1992) and the Florence Convention (Council of Europe 2000) already provide a pan-European framework for cooperation on natural and cultural heritage. From an ideological point of view, the notion that citizens can participate in their own heritage resonates with the Faro Convention (Council of Europe 2005) and the Aarhus Convention (United Nations Economic Commission for Europe 2001). It also coincides with participatory practices and crowd-based initiatives in Europe that have been developing over recent years in natural and cultural heritage (see European Commission 2017). From a practical point of view, there is no indication of how the *Omgevingswet* will be integrated with the current fragmented model of natural and cultural heritage in the Netherlands, with its many procedures and rules. In the new system, heritage must be approached coherently because the management of a heritage site is not only about the physical environment itself but also about the activities planned in and around it (UNESCO Werelderfgoed in Nederland 2018: 7). This implies that the future of heritage must be unified, especially since the new law will enshrine *World Heritage* into Dutch law for the first time (UNESCO Werelderfgoed in Nederland 2018: 8).
Expectations

Within the context of preparing an environmental plan, municipalities take into account cultural heritage, including anticipated archaeological assets (Ministerie van Infrastructuur en Milieu 2016b: 73). While it is the responsibility of municipalities to make anticipated assets as clear as possible beforehand, it is not always so obvious in practice. While the Omgevingswet requires initiators (including the private sector) to conduct research (soil investigations, for example), the data will be valid for longer, making it easier to use again (Rijksoverheid 2018). The idea is that this would create a better means for digital recording and availability of plans through standardisation via Social Impact Assessments (SIA) (International Finance Corporation 2012), a new process in the Netherlands as a result of the Omgevingswet.

The SIA standard is based on environmental impact reporting, consultation, and public participation at various levels - integrating plans that anticipate environmental and social risks posed by project activities - and potentially uniting participatory practice with natural and cultural heritage in the Netherlands. According to the Dutch government, future assessments under the Omgevingswet will also be more transparent via the new online portal for initiators to find out which provisions apply, which procedures must be followed, and which competent authority grants the permit (Overheid 2016).

The role of the national government is shifting from governing to facilitating the planning processes of regional and local authorities, and the Omgevingswet transition requires the support of municipalities. Local government regulations must be included in the online system, which means all authorities have to translate their legal rules from environmental plans, environmental regulations and water board regulations into applicable rules (Aan de slag met de Omgevingswet 2019b). What is fundamentally different from the currently accepted model is that citizens will be able to participate and even initiate projects of their own. Whether this will be straightforward in practice is another question.

There is no clear-cut outline yet for the ongoing process of implementing public participation in the Omgevingswet. It is uncertain what public participation will look like, but a shift in thinking and looking beyond one’s own domain, treating the environment as a whole, is what the Omgevingswet encourages. This organisational structure of citizen participation will be compulsory by law and might allow the future vision of sustainability, and interdisciplinary knowledge-generating processes, to evolve.

Example

The Dutch government has created the National Environmental Vision (Nationale Omgevingsvisie, NOVI) (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties 2019a), which is instrumental to the Omgevingswet. The NOVI, a vision for the whole of the Netherlands, describes a long-term plan that outlines the development, use, management, protection, and conservation for future policy. However, the Dutch government cannot and does not want to answer the big questions about the physical living environment alone, so the NOVI is an ongoing process that is closely cooperating with local authorities, actively seeking the involvement of social organisations, knowledge institutions and residents (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties 2019b).

On a national level, the NOVI focuses on a sustainable and competitive economy, a climate-proof and climate-neutral society, a future-proof and accessible living/working environment,
and a valuable living environment (Ministerie van Infrastructuur en Milieu 2017: 47). The ambition to preserve and maintain heritage for future generations can be at odds with the desire to change and intensify the use of the living environment. However, the NOVI pays particular attention to the interface between sustainability and heritage. For example, a broad definition of cultural heritage in the physical living environment is used. The idea is to keep monuments, historical buildings, village views and cultural landscapes for future use, incorporating sustainability and smart design - a tool that contributes to the quality and guides the future of the living environment (Ministerie van Infrastructuur en Milieu 2017: 30-31).

While the NOVI is a long-term national strategic plan for the Netherlands, the municipalities have to create environmental strategies that coincide with its focus.

On a regional level, to strengthen cohesion between municipalities that must build on the NOVI, a cooperation agenda for the city of Leiden and its surrounds has already been drawn up to create a regional environmental vision - Regionale Agenda Omgewingsvisie 2040 (Van Der Straaten 2016). Along with Leiden, the cooperating municipalities include Kaag and Braassem, Katwijk, Leiderdorp, Noordwijk, Oegstgeest, Teylingen, Voorschoten, Wassenaar, and Zoeterwoude. This municipal coalition was not appointed on an ad hoc basis; it had to form out of necessity to comply with the future regional vision of the landscape in which they share.

This regional agenda describes the intention of the Omgevingswet - combining themes that include construction works, buildings, infrastructure, water systems, water, soil, air, landscapes, natural and cultural heritage - as an integral vision of the physical living environment and taking into consideration the reuse of built heritage in the region (Van Der Straaten 2016: 22). Furthermore, the municipalities recognise the Netherlands as a human-made cultural landscape - remodelling, maintaining, developing, and integrating natural and cultural heritage in development (Van Der Straaten 2016: 10). Therefore, it is not surprising that this regional vision by the municipal coalition includes the cultural-historical and archaeological values of the Limes, once the northern border of the Roman Empire along the Old Rhine, as an important feature in the landscape to be preserved for the future (Van Der Straaten 2016: 41). This regional vision is an example that shows how municipalities can communicate with each other and with citizens (those who are both willing and have the time to do so) who also have ideas and preferences for their local environment, encouraging public participation in regional environmental planning.

Analysis

Obvious or not, one cannot assume that everyone has an equal opportunity to be involved in a regional vision (some still in development) or a proposed project on the new Omgevingswet online portal. The extent to which citizens can and want to participate, especially if it is only limited to the early stages of a plan or project, can affect the outcome of how natural and cultural heritage will be integrated with the landscape too, and this will differ from municipality to municipality and region to region.

The precise format for public participation through the new Omgevingswet online portal, where interaction will occur, is not yet available. However, within the new law, the online platform will allow citizens to apply for an environmental permit and update citizens about the progress of a project. The online platform will also be used for discussions among stakeholders, educating local officials, and providing options for citizens to report issues
in their local environment (Aan de slag met de *Omgevingswet* 2019c). Since the new law is not yet operational, its influence on citizen participation is yet to take shape. But the incorporation of knowledge and expertise of citizens in the planning processes (presuming that participation is equal and accessible to all citizens), which may be specifically related to local knowledge that is unavailable to governmental organisations, could lead to beneficial outcomes for participatory practice in that information is made transparent at municipal, regional and national levels.

The internal changes in local, regional and national governmental organisations are required to move away from current bureaucracy practice and acclimate to new working processes on the *Omgevingswet* digital platform, along with new methods of communication. Because citizens will have the opportunity to become partners in the planning process, the dialogue between governmental institutions and citizens could potentially enhance the participatory governance process.

Participatory governance refers to the sharing of institutional decision making with the wider public. Governance structures within cultural heritage organisations usually do not offer the public any formal role, thus limiting their long term impact (Sani 2015: 7). A participatory approach requires adjustments in the structure of governance, along with a change in the organisational structure of institutions, ceding their authority and giving stakeholders an opportunity to have their say (Sani 2015: 9). While these strategies may be inclined to follow bottom-up principles, a participatory process of governance does not have to be either top-down or bottom-up; it can be both.

If the NOVI and regional environmental visions are the grounds for which choices are being made in the environmental planning process, projects should involve a continuous process of participation where citizens and other stakeholders are (or can be) involved in an ongoing way - not just in the early stages. This also raises the question as to whether every initiator of a project is even capable and required to guide the participation process, or if that is the responsibility of the municipalities. The *Omgevingswet* does not make this explicitly clear.

**Opinion**

If the NOVI indicates how municipalities will guarantee the protection of natural and cultural heritage for the long term, cultural-historical and archaeological values should be clearly described in future examples of municipal regional environmental visions and agendas from the outset. Natural and cultural heritage could be framed as ‘additional’ value to local environmental projects. Decisions should also be based on the best available knowledge and involve citizens in all phases of the decision-making process. If the goal is not to simply inform citizens about projects, but provide details on the how and the why, information exchange can bring citizens together for the purpose of sharing ideas and concerns. Real citizen participation involves the dissemination of information.

If the online *Omgevingswet* platform succeeds in decentralising power, shifting responsibility from the government to the public, it cannot be assumed that community decision making is monolithic. The *Omgevingswet* is going to replace current laws, and the expectation might be that both natural and cultural heritage values will become more equally integrated in the Netherlands, particularly when *World Heritage* (UNESCO 2019) will be enshrined into Dutch law. And while perhaps the *Omgevingswet* is genuinely optimistic about its pragmatism, it may
be simply paying lip service to the term *participatory practice*. Only time will tell how well the integration of laws from various sectors, including natural and cultural heritage, will fair.

**Power struggle: case-by-case basis**

Public participation is a paradox. Significant questions arise as to who gets to decide the rules of shared spaces and who gets to shape the tools and platforms. The *Omgeringswet* implies that the online platform is open to involve all citizens. However, the application of crowd-based initiatives (one of many potential outcomes for the future *Omgeringswet* online portal), involves knowledge: knowledge for its own sake and the practical applications of knowledge, knowledge as collaborative practice, both of which are required in order to bring about smart courses of future engagement. If the objectives, scope and purposes are clear from the outset, and if a project is made continually clear throughout its development, then there might be a higher chance of civic involvement. It cannot be assumed, however, that increased online involvement is one of the main goals of the *Omgevingswet*.

There are valid concerns that crowdsourcing and crowdfunding methodologies could substitute insight for engagement (Tourle 2017: 237). This consideration can also be applied to the online *Omgeringswet* platform, alongside the production and consumption of natural and cultural heritage and privileged access to funds and digital technologies. The ramifications of a crowd-based practice could potentially devalue professional labour by replacing it with free labour (Perry & Beale 2015, Richardson 2017). For these reasons, crowd-based projects should be flexible.

The participatory practice of crowd-based initiatives does not replace traditional heritage management but acts as another avenue for heritage discourse and practice. Depending on the project, crowd-based approaches may not even be required, or one approach might be more necessary than the other. It is context-dependent; one size does not fit all. Associating a project with learning institutions such as universities, vocational training schools, museums, libraries, or the city archives can enhance its quality by gaining access to other resources (Travaglia 2015: 76). Whether or not heritage is at the mercy of destruction by political, natural or commercially induced processes, crowd-based initiatives can make it increasingly possible for the public to get involved and be stewards of their own heritage.

**Summary: natural and cultural heritage**

If participants have the opportunity to be engaged, rewards for enforcing the governance of a project could create new value, especially in the Netherlands, where the *Omgeringswet* will allow for the interplay of citizens, professionals, municipalities, the private sector and the government to co-create. With the *Omgeringswet* in place, research data will remain valid for longer (in theory), which will also make it easier to (re)use.

When it comes to participatory practice, it is uncertain whether the *Omgeringswet* will use strategies that include a community of practice or crowd-based approaches. What this means for the future of natural and cultural heritage is unclear. Perhaps the *Omgeringswet* will ensure integration of natural and cultural heritage because it perceives itself as eliminating the bureaucracy that is associated with the overlapping sectors of nature and culture.

The NOVI and regional environmental visions (one of which was mentioned within this paper) that prioritise certain landscape values over others, matter. The way a project is framed
can influence the perspectives of citizens and experts alike. The Omgevingswet will provide a new digital platform of participation and perhaps both the public and the government will equally control it. This will depend on the way municipalities integrate heritage in their regional visions, by communicating through a digitally layered platform that is still under development.

**Conclusion**

Technology can change society’s values and norms. Online communities and networks are globally transforming the way people do things - from vertical, top-down and centralised to horizontal, bottom-up and decentralised. But how does this translate to the natural and cultural heritage discourse? To quote communications theorist Marshall McLuhan, “the medium is the message” (McLuhan et al. 1967). The way public participation influences natural and cultural heritage discourse will depend on the medium.

The medium, such as the online Omgevingswet platform, embeds itself in the message, such as the integration of sustainable landscapes in a national environmental vision (NOVI). The regional vision example (Van Der Straaten 2016) combines natural and cultural heritage in the physical living environment. However, other regional visions may also overlap, but are yet to be made available. There is a symbiotic relationship whereby the medium (the Omgevingswet as a combining law and as an online platform of engagement) can influence how the message (the national and regional environmental visions with a long-term view for the future and development of the environment) is perceived by the public.

The medium is not neutral; it has a social impact. It is yet to be determined what effects the Omgevingswet medium will have on society. The process of participatory practice, in consultation with citizens and experts both online and offline, can be complementary. But consider this; if decentralised representation in governance is less democratic than what is currently on offer for those participating in the heritage dialogue, the potential risk of the Omgevingswet paying lip service to participatory practice will have a profoundly negative effect on how democratic the dialogue in heritage planning will be. While the multiplication of participatory practices in heritage is no guarantee for the redistribution of democratic powers, one message is clear - new initiators and initiatives could make it increasingly possible for wider collaboration, engagement and insight.

**References**


Göttingen University Press, 7–18.


Towards a joint natural and cultural heritage management: modes of interaction

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Abstract
Arguments for a joint natural and cultural heritage management practice follow a well-trodden path by now - we know what has to be done -, but not so much how to do it. The purpose of this article is to look at practical modes of interaction. What has been suggested so far? Although much has been gained through awareness-raising, the creation of common ground through comparing concepts, and integration within the planning processes, new practice seems to get stuck somewhere down the line. Difficulties relate to traditional thought-collectives, but also to power structures. In this article, I conclude that suggested actions are structured top-down and I propose four bottom-up strategies professionals in the workplace may want to consider to bridge the divide between both domains. As practice in heritage management systems is formed through the dynamic of processes (procedures, protocols, methods), organizations (management commitment, staffing, work routines) and professionals (skills and knowledge), modes of interaction should be focused on these pillars in the system. Bottom-up tactics may help decide professionals working within heritage management to engage in cross-overs. These range from full to partial integration, depending on the context of the task at hand.

Keywords: Heritage Management, Sustainable Landscape Development, Modes of Interaction, Bottom-up Approaches, System

Introduction
The reorganization of land to adapt to societal needs rapidly changes our environment. Change is an essential characteristic of landscapes and may occur slowly or swiftly, and is often dependent upon the circumstances of economic dynamics (Antrop 2003; 2006). This characteristic is highlighted in the European Landscape Convention (Florence Convention 2000). The consequence for heritage management is twofold. Firstly, historical landscapes should not be made into open air museums. This tends to offer a vision without deep time-depth, in which time appears frozen in a generic past, represented as a static and bounded cultural entity, property of history rather than of living tradition (Crang 1999). If the dynamics of change cease, the landscape will lose its vitality. The challenge therefore lies in the management of change. Landscapes are to be seen as Living Landscapes. Secondly, as the landscape is made up of what it is through interaction of nature and humans, then the focus for the management of change should be on that combination of the natural and the cultural.

CONTACT: Heleen van Londen, H.vanLonden@uva.nl
Although the European Landscape Convention (ELC) is now seen as the dominant EU framework for landscape management, the first recognition on an institutional level was the UNESCO World Heritage Convention (1992), where landscape was defined as “combined works of nature and man” (Article 1). In the operational guidelines for the implementation of the World Heritage Convention (2008), landscapes are divided into three categories (1) landscape deliberately designed and created by man; (2) organically evolved landscapes; (3) associative cultural landscapes. The ELC does not work with these categories; in it all landscape matters - beautiful, common or even run down - all require management of change. What needs managing is the change of the landscape character and quality (Clark et al. 2004, Fairclough & Rippon 2002; Fairclough & Van Londen 2010; Luginbuhl 2006). Once the landscape character has been identified, quality objectives are to be developed through by which the landscape can be protected, managed or developed. These policies are to be integrated into land use planning at all levels of governance. The ELC is committed to identifying and assessing landscapes through field research by professionals working with local communities. Local knowledge, community participation in citizen science driven projects, is valued because sustainable development, democracy and well-being belong to the principles of the ELC (Prieur 2006). Each landscape forms a mix of components and structures: types of territories, social perceptions and ever-changing natural, social and economic forces. For obtaining objectives and a recognized landscape character it is required to define the significance of landscape; to explain long-term change as a historic foundation for future changes, to recognize the interaction between nature and people and to make others aware that the present landscape is inherited from the past as a form of material culture, as heritage. Thirty-nine out forty-one EU member states (Council of Europe 2019) undersigned the ELC and have integrated the principles in national legislation and policy.

While European member states - as a result - have common policies for sustainable development, as illustrated by several conventions, nations have their own individual approach (Bloemers & Van der Valk 2007). These national frameworks are thought to be best suited to address the challenges and characteristics of each country. Not only are landscapes diverse, policies too are manifold. What still seems to be lacking in practice is the integration of cultural heritage management and nature conservation. However, much is to be gained for instance regarding agricultural policy (CAP), flood protection (dikes, brook valleys), climate policies for CO2 reduction, and the energy transition. Some are typical for specific countries; others are challenges for all and will impact the landscape on a large scale. Farming, water management, climate and the exploitation of energy sources have a long history of structuring the landscape. The divide between the sectors is not only due to difficulties in uniting different traditions or thought-collectives, but also to power structures (Skoglund & Svensson 2010), for instance the way safeguarding heritage is organized, how well the significance is recognized, the task perception of organizations and legislation frameworks. Arguments for a joint heritage management practice is a well-trodden path by now (among others Brown et al. 2005; Philips 2005; Harmon 2007; Renes 2013, 2018a) - we know what has to be done -, but not so much how to do it. The purpose of this article is to look at practical modes of interaction. What has been suggested so far? This article then proposes four basic strategies for specialists in the workplace wanting to bridge the divide between both domains. As practice in heritage management systems is formed through the dynamic of processes (procedures, protocols, methods), organizations (management commitment, staffing, work routines) and professionals (skills and knowledge), modes of interaction should be focused on these pillars in the system.
A solution to which problem?
Summing up some of the challenges.

- **Damages.** Inadvertently, sectoral approaches to safeguarding heritage often leads to damage in another domain, such as flooding, mowing, deep-rooting species, clearing vegetation from monuments and such;

- **Perception landscape significance.** Recognition of equal importance of both domains is sometimes difficult to obtain. A good example is the Wadden Sea area, which is predominantly seen in practice as a Natural World Heritage Site. A special agenda was written for the aims of emancipation, researching and safeguarding cultural values in the area (Bazelmans 2009; Renes 2018);

- **Legislation and permits.** Legislation in the nature domain is much stricter than in cultural heritage management. Natura 2000 areas are protected natural habitats. Development in such areas is only permitted after proved major public interest and no alternatives exit. In the early stages of planning, it is much harder - albeit impossible - to get a permit to develop in a Natura 2000 area, than it is to negatively impact protected cultural heritage, while both are essential for the landscape character. Legislation comes first and then landscape quality objectives second;

- **Knowledge and skills.** Integral (interdisciplinary) knowledge and skills are often lacking for proper understanding of both domains;

- **Mission statements.** Departments within organizations work separately. Often when individuals are motivated to work integrally, support from higher up may get in the way. Organizations rarely act outside their task description.

These challenges can easily be related to the three parts of the management system, so to people (perspective, knowledge and skills), to procedures (for instance legislation and permits) and organizations (mission statements).

A general accepted definition of **Interdisciplinary Studies** is “a process of answering a question, solving a problem, or addressing a topic that is too broad or complex to be dealt with adequately by a single discipline or profession.” (Klein & Newell 1997, cited by Fuchsman 2009, 71). A common vocabulary and other common ground help integration, leading to a more comprehensive perspective. These basic principles of interdisciplinarity are recognizable in policy frameworks, such as the ELC.

Actions belonging to interdisciplinarity revolve around integration, interacting, linking, focusing and blending, while transdisciplinarity aims for change through transcending, transgressing or transforming. In both cases, new types of disciplines are created. In contrast, in multidisciplinary frameworks disciplines remain unchanged. In such a context, new information is gained through juxtaposing, sequencing or coordinating (Klein 2010: 15-19).

According to Kleins taxonomy, interdisciplinarity ranges between the complementing of disciplines to the transformation into hybrid forms, between partial and full integration. With it come degrees of collaborations and types of practice varying from broad to narrow, from methodological to theoretical, from bridge building to total restructuring of institutions and so forth.
**Trends, approaches and guidelines so far**

The ELC recognizes the need for awareness-raising, training and education (people) as well as integrative planning policies and innovative tools (processes). Above all, the sectors need to understand each other. Emphasis is put on the exchange - and adaptation - of professional language, imagery, motivation and value systems (Pedroli & Van Mansvelt 2006; Prieur 2006). Understanding lies at the very basis of any form of cooperation. When both sectors understand each other’s priorities, they can find ways to work together, find common ground.

Understanding relates not only to disciplinary heritage management practices, but also to the landscape itself. A model has been developed as one of the outputs of the Interreg Europe project, Planarch (PLANning and ARCHaeology 1999-2006), that places understanding of landscape at the core of a cyclical process of identification, evaluation, management and promotion (Williams 2010: 559).

Recent policy and research aimed at interdisciplinary approaches, illustrate trends and practical guidelines at least since 2000. The character ranges from professional concepts and language (Clark 2000) to understanding value systems (Hooimeijer et al. 2001; Dauvellier 2004), to best practices based on experience (Leitão et al. 2017), and to awareness-raising and incentives (Raap 2015; Bleumink & Neefjes 2017), even to a new perception of heritage - as part of a paradigm shift - in which disciplinary boundaries are useless (Harrison 2015). Below, these trends and guidelines will be shortly examined.

**Professional concepts and language**

Kate Clark published an inventory of trends in European cultural heritage management at the start of the millennium, noting a development towards the use of broader concepts and the wider role of cultural heritage in society (Clark 2000). She participated in a specialist consultation group within the framework of the Forward Planning Project for the Cultural Heritage Committee (CC-PAT) that drafted a paper for the 5th European conference of Ministers responsible for the cultural heritage, on the theme “The cultural heritage and the challenge of globalization”. The reported trends show a change in perception towards interdisciplinarity and democratization that parallels the ideas of the European Landscape Convention. It offers an overview of the shifts in professional concepts and language at the time that were implemented in policy and research from then on. The use of new terms are indicative of a landscape perspective dominance. Keywords relate to structures, (urban) areas and regions, to management skills and responsibilities that lie within the environmental sector (table 1).

Ashworth noted that the shift of focus from monument to landscape may very well count as paradigmatic, but still has safeguarding heritage - with intrinsic historic values - at its core motivation (Ashworth 2005). In his publication, he emphasizes the present day and future consumption of places. The more substantial paradigm shift, according to Ashworth, is the recognition that heritage is a present day construction and activity, which resonates with Holtorf, Fairclough and Harrison (Holtorf & Fairclough 2013, Harrison 2015, Van Londen 2016). This new heritage perspective leads away from landscape management, towards a broader role in societal issues; the latter a trend already described by Clark some twenty years ago (Clark 2000).
### Table 1. Trends in European heritage management at the turn of the millennium (Clark 2000: 112). The concepts show a shift in heritage management perception towards landscape, environment, interdisciplinarity and democratisation.

<table>
<thead>
<tr>
<th><strong>Definition of Heritage</strong></th>
<th>FROM</th>
<th>TO</th>
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<tbody>
<tr>
<td>Monuments</td>
<td></td>
<td>Landscapes</td>
</tr>
<tr>
<td>Buildings</td>
<td></td>
<td>Urban areas</td>
</tr>
<tr>
<td>Sites</td>
<td></td>
<td>Historic environment/cultural heritage</td>
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<tr>
<th><strong>Role of Heritage in Society</strong></th>
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<th>TO</th>
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<tbody>
<tr>
<td>National unity</td>
<td></td>
<td>Respect for cultural diversity</td>
</tr>
<tr>
<td>Generate revenue from visitors</td>
<td></td>
<td>Wider economic benefits Social benefits</td>
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<tr>
<th><strong>Decisions</strong></th>
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<tr>
<td>State</td>
<td></td>
<td>Region/locality</td>
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<tr>
<td>Authoritarian</td>
<td></td>
<td>Democratisation Participation</td>
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<table>
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<tr>
<th><strong>Professionals</strong></th>
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</thead>
<tbody>
<tr>
<td>Experts</td>
<td></td>
<td>Facilitators</td>
</tr>
<tr>
<td>Single discipline (e.g., buildings, archaeology)</td>
<td></td>
<td>Multiskilled professionals</td>
</tr>
<tr>
<td>Historical knowledge</td>
<td></td>
<td>Management skills</td>
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<table>
<thead>
<tr>
<th><strong>Significance</strong></th>
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<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old</td>
<td></td>
<td>Industrial heritage; post-war buildings</td>
</tr>
<tr>
<td>Aesthetic</td>
<td></td>
<td>Commemorative value</td>
</tr>
<tr>
<td>National importance</td>
<td></td>
<td>Local distinctiveness</td>
</tr>
<tr>
<td>Monocultural</td>
<td></td>
<td>Values of different cultures</td>
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<tr>
<td>Narrow range of values</td>
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<td>Wide range of values</td>
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<tr>
<th><strong>Interpretation</strong></th>
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<th>TO</th>
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<tbody>
<tr>
<td>Expert led</td>
<td></td>
<td>Community led</td>
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<tr>
<th><strong>Responsibilities</strong></th>
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<th>TO</th>
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<tbody>
<tr>
<td>State led</td>
<td></td>
<td>Communities/the market/private sector</td>
</tr>
<tr>
<td>Heritage sector</td>
<td></td>
<td>Environmental sector</td>
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<table>
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<tr>
<th><strong>Management Practices</strong></th>
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<th>TO</th>
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<tbody>
<tr>
<td>Designation</td>
<td></td>
<td>Characterization</td>
</tr>
<tr>
<td>Separate conservation</td>
<td></td>
<td>Integrated conservation</td>
</tr>
<tr>
<td>Site based</td>
<td></td>
<td>More strategic</td>
</tr>
<tr>
<td>Technical research</td>
<td></td>
<td>Philosophical research</td>
</tr>
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</table>

**Value systems and spatial quality**

Land use planners contributed to the understanding of values and interests that come together in the field of spatial planning. For instance, in The Netherlands, land use planners and landscape architects developed a pragmatic approach for the rather vague term ‘spatial quality’ which has become a central aim in Dutch policy (Hooimeijer et al. 2001; Raad 2011, 13). The term is closely related to the idea of landscape character and the quality objectives of the ELC. Spatial quality has been defined as the sum of *user value, perceived value and future value* (table 2 after Dauvellier 2004, 27; Dauvellier et al. 2014: 225). These are explained by example. When buying a house, the house must facilitate the activities of the people living in it (user value), the house needs have the right atmosphere (perceived value) and it must be adjustable to future use, not too expensive to maintain and has to keep its market value (future value) (Dauvellier et al. 2014: 225). These values are equally applicable to the landscape scale. They were brought together in a matrix relating to the interests of economy, society, ecology and culture, facilitating the analysis of local situations, identifying the spatial quality of the area.
Table 2. Matrix of the interpretations of 'spatial quality' as it is used in interactive plan making: characteristics to be specified per area (Bloemers et al 2010: 28 after Dauvellier 2004: 27). The matrix combines different values as interests of economy, society, ecology and cultural heritage to facilitate inclusive spatial design without actually integrating the disciplines.

For cultural heritage experts the above planning concepts were especially of interest, as they offered room for the sustainable development of archaeological-historical landscape. Emphasis was placed on cultural heritage protection through development (Bloemers et al. 2010), not as much on the integration of cultural and natural heritage. Nonetheless, interdisciplinarity was sought after with other disciplines studying the past and outside the field of cultural heritage. Interdisciplinarity in the domain of cultural history was labelled internal integration, while the interaction with planning, politicians and the public was called external integration (Van der Valk 2010: 32-33). The biography of landscape, a form of storytelling and action research were put forward as unifying concepts to facilitate these integrations (Bloemers 2010, 11-13). Through storytelling, the long-term history of places can be told, emphasizing landscape transformations, using information from various disciplines (Kolen et al. 2015: 2018; Van Beek et al. 2008: 179-184). Action research is a methodology aimed at solving real-life problems. Researchers and participants in particular (policy) practices generate new knowledge by joint communication processes that lead to social action (Greenwood & Levin 2007,149, Bloemers 2010, 9). As such, it is a form of strategic research, directly influencing practice. In the United Kingdom, Historic Landscape Characterization was developed, a GIS based analytical method for landscape classification covering every inch of land (Clark et al. 2004).
In the first decennium, the use of cultural history in land use planning was not restricted to the Netherlands, but more widespread and referred to as the policy of cultural planning. However, in the Netherlands it became part of national policy whereas in other European countries it was more applied on a local level and project based (Belvedere Memorandum 1999; Jansen et al. 2013: 9). Today, still much attention is given to cultural planning as illustrated by the initiative of Heriland, an international graduate school for cultural heritage and planning of European Landscapes (VU 2019). Within this case, focus lies on future uses of the past.

Pedroli and Van Mansvelt, with a background in landscape studies, presented unifying models and concepts for sustainable development as part of the European Landscape Convention framework (Pedroli & Van Mansvelt 2006: 132-3). The authors state that motivation - needs - are the driving force to link scientific disciplines. They refer to Maslow’s triangle, combining peoples need to nature’s need, i.e. the earth limited resources. Various disciplines are ordered through it, explaining how each domain does contribute to sustainability.

The ordering in both approaches (Dauvellier et al. 2014 and Pedroli & Van Mansvelt 2006), i.e from planning and landscape studies, are multidisciplinary, aiming to be inclusive of other domains. Certainly, the planners matrix is a hands-on tool for combining the most important sets of information from the disciplines. Recently, a comparable assessment matrix was designed for Natuurmonumenten (Natural Monuments Society), a Dutch NGO for nature conservation, to include heritage management in nature reserves (Purmer 2018). The author offers a tool to test the effects of proposed development on both natural and cultural landscape qualities in the targeted area.

**Best practices: lessons learnt**

Using best practices from pilot projects is a well-known strategy to obtain grounded ideas and experiences in new fields. The International Council on Monuments and Sites (ICOMOS) and the International Union for Conservation of Nature (IUCN) jointly published the outcomes of the Connecting Practice project. The project aims to

> “explore, learn and create new methods of recognition and support for the interconnected character of the natural, cultural and social value of highly significant land and seascapes and affiliated biocultural practices” (Leitão et al. 2017: 3).

The recommendations from this project are best practices drawn from pilot projects of World Heritage Sites. The deeper motivation is to develop a uniform methodology for the management of both cultural and ecological heritage. The work has resulted in a first reference document, which serves as a guide for future policies. Some of the lessons learnt are the following:

- Promote dialogue between national institutions dealing with nature and culture;
- Strengthen the capacity of staff and experts within advisory bodies who contribute to their work on the interrelationships between nature and culture;
- Promote best practice, including carrying out fieldwork that could contribute to the development of detailed outreach;
- Develop a joint guide on the management of world natural and cultural heritage (currently there are separate guides).
Clearly, the targeted practice envisions a heritage management dealing with institutions, professionals and processes at once.

**Awareness-raising and practical guidelines**

Some of the concepts and best practices mentioned above have been translated into recent policy guidelines. For instance, the Netherlands incorporated heritage as an inseparable part of the use of space and spatial developments (RCE 2011). The program *Living Landscape* focuses on area-specific approaches, interlinking the interests in the fields of economy, ecology and heritage. A dialogue has started regarding agricultural policy, water management and new infrastructure for the energy transition.

Practical guidelines can be found as the result of cooperation between government bodies, such as cultural heritage agencies and those focused on particular land use or redevelopment (Raap 2015; Bleumink & Neefjes 2017). The main function seems to be awareness-raising in the other domain, explaining heritage values and benefits and showing good examples. Among the aspects advocated are the following arguments:

- Landscape and heritage enhance quality and individuality;
- Heritage offers inspiration and points of departure for contemporary planning;
- Attractive landscape and regional identity are important economic factors;
- Knowledge of landscape and heritage helps to understand the functioning of brook systems;
- Ecological values are often linked to historical land use and water management;
- Public support and citizen participation;
- Water-awareness and (youth) education;
- Folk tales;
- Landscape and heritage as a unifying theme in spatial assignments;
- Brooks as a connection between city and countryside;
- Multiple heritage;
- Care and diligence (legislation).

These arguments to pay attention to and even more so, actively engage with - in this case with cultural heritage - range from rather soft values - trying to seduce- to the harder motivations, meaning legislation. The practical guidelines seem targeted at the higher institutional management level, addressing task perceptions, using the *carrot and the stick* method.

**Bottom up: Four strategies to interact**

The selection of trends, approaches and guidelines that advocate cross-overs span a period of some twenty years. In general, they are structured according to a top-down approach. However, bottom-up modes of interaction may speed up the implementation process for cross-overs. These may influence organizations, management and protocols from within.
Four strategies can be deduced for experts working within set frames of legislation and institutional divides. The proposed tactics differ in their increase or decrease of actual sectoral integration and the effort that has to be made for a jointly approach. This choice depends on the context of the task at hand, the degree of integration sought after and the difficulty of reaching a common approach. The terms used for interdisciplinary activities, like integrating, interacting, linking, focusing and blending are all apt descriptions in this context.

**Integrated approach**
The integrated approach can be best illustrated by the heritage management of historical gardens. The garden design, pathways, views, water sculptures and vegetation form an entity. These aspects can be studied separately, but to truly understand, safeguard, and experience the gardens, all elements should be treated as interdependent. Firstly, research is needed to appreciate how all elements are interwoven in the garden design and further developments, secondly a management plan has to be designed to safeguard all aspects for future use.

Such an approach may be applied to any landscape, whenever a meaningful cultural and/or natural landscape interrelation is chosen for safeguarding. The classification of the World Heritage Convention (2008) into three categories (1) landscape deliberately designed and created by man; (2) organically evolved landscapes; (3) associative cultural landscapes, may offer a relevant framework.

Integration in this case means interdisciplinary work within projects where data, methods, measurements and public engagement get to be integrated. Examples are for instance, the biography of landscape, a narrative of landscape transformation (Kolen et al. 2015: 2018; Van Beek et al. 2008: 179-184), or Historic Landscape Characterization (HLC), a GIS database (Clark et al. 2004). These types of activities, when selected, will result in strategic cooperation, networks and new shared knowledge in the workplace.

**Layered approach**
With layering as a tactic, various disciplines and interests are listed together like chapters in a report. The planners matrix is such an example (see table 2). Here, economy, society, ecology and cultural heritage are brought together without wanting to merge any of the domains. The matrix helps to explicate a wide spectrum of interest to facilitate inclusion of all aspects belonging to spatial quality. The format is multidisciplinary, using sequencing, each layer complementing the other. Another example of layering can be found in Environmental Impact Assessments (EIA). Here, negative or positive effects for quite a number of aspects must be thought over before changing the landscape. By specifically paying attention to these disciplines, a good solution can be found for creating new sustainable landscapes or finding mitigation measurements. A project can go through different organizational units, collecting information for each interest. This approach will offer opportunities to learn and to get acquainted with concepts and experts in other sectors.

**Hitchhiking**
Hitchhiking is a tactic where an opportunity created by the other discipline is used. For
instance, cultural heritage sites located within a Natura 2000 area can hitchhike on the protective measurements that follow the legal framework for ecology, which is much stronger. Other examples for instance are archaeological sites located in drinking water reserves or on military domains used for training. The Dutch Ministry of Defence issued a policy in 2016 allowing for co-use of military areas. The main function of the areas is military use, all other functions are subordinate to that. However, these functions are most often not in conflict with each other and therefore the aims are to maintain and protect the natural and cultural heritage landscape values and offer opportunities for nature development. Nature and landscape legislation and regulations impose their own restrictions on the use of sites. The Ministry of Defence commits to faithfully implementing these regulations, but does not have a stricter policy than necessary (Ministerie van Defensie 2011).

In these cases areas are protected, but not mainly for the safeguarding of heritage. To apply such strategy, knowledge of other disciplines and relevant legal frameworks are required. It also means cooperation between different departments within organizations on management levels. Hitchhiking has the potential to influence task perceptions of organizations.

**Copying/adopting good practice from the other discipline**

The least complicated strategy is copying a good practice from another discipline. The methods described above all require some sort of collaboration, while copying means introducing something new while firmly staying in your comfort zone. This tactic can be focused on concepts, processes, as well as methods, maps or instruments and depends on the specific context for it to be effective. Adopting a good practice means being informed of those practices in other disciplines. Its success often depends on an individual with a broad background. Through adopting good practice protocols, methods and procedures can be influenced. Purmer studied the role of heritage in nature reserves owned by Natuurmonumenten (Natural Monuments Society) (Purmer 2018). His research questions relate to how the various concepts of nature, heritage and landscape are of use for the organisation (Purmer 2018: 449). Borrowing concepts from other disciplines is common in academic practice (Klein 2017: 25). If the influence of the borrowed method in practice is moderate the relation is classified as auxiliary relationship. However, this can grow into a supplementary relationship when the impact increases.

**Conclusion**

The last twenty years the culture/nature divide has been widely debated in heritage management policies. A large majority by now is in favor of a joint approach, basically motivated by the complexity of landscapes as well as the larger challenges facing society, like climate change, the energy transition and such. Although much has been gained through awareness-raising, the creation of common ground through concepts, and within planning processes, new practice seems to get stuck somewhere down the line. Since heritage management systems are structured through institutions, procedures and professionals, it may be helpful to address professionals in the workplace. Bottom-up tactics may help decide professionals working within heritage management to engage in cross-overs. These range from full integration to partial integration, depending on the context of the task at hand. Full integration is by far the most complex way to go. Successful full integration - in the end - will lead to a transformed new practice, leaving behind the sectoral approaches as
outdated solutions. As sectors are institutionalised conflicts may very well arise. Layering - a multidisciplinary approach - may offer a quick and pragmatic solution to an inclusive practice. Here, disciplines remain relevant by themselves. Hitchhiking can be extremely effective as illustrated by the Dutch defense policy of co-use. However, finding an influential partner to hitch a ride may require some savyness. Finally, borrowing concepts, methods or procedures from the other sector may help overcome some practical issues.

References


CRANG, M., 1999. Globalization as Conceived, Perceived and Lived Spaces. Theory, Culture
and Society 16 (1), 167-177.
LUGINBUHL, Y., 2006. Landscape and individual and social well-being, preamble to the


Connecting natural and cultural heritage practices. Is integration always a good idea?

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Abstract

Integrated approaches in landscape management are often seen as the way forward to provide solutions for complex heritage problems that are related to policy, climate change, tourism, environmental planning and involving the public. This has led to a range of interdisciplinary and multidisciplinary projects aiming to add value to disciplinary approaches and gain new insights. Although interdisciplinarity is a promising research approach, there are many obstacles that may affect the quality of the project outcomes, slow down the overall organisation or create substantive errors. This raises therefore the question: is integration always a good idea?

In this paper, I will show the complexity of cultural-historical landscapes and examine interdisciplinary approaches for their value as framework for historical landscapes. The role of historical assessments methods in landscape design is discussed. Finally, the example of two historical gardens and the process of their restoration and conservation will demonstrate how interdisciplinary and disciplinary approaches are related to each other in the garden design process.

Keywords: Cultural Heritage, Landscape, Historical Garden, Research Disciplines

Introduction

Over the last decade, the awareness of the interconnection between natural and cultural heritage have led to the adoption of integrated landscape management approaches by professionals of both domains. An integrated approach can explore alternative strategies as landscape policies with a traditional environmental and/or ecological focus are limited; it can also identify barriers to problem solving and provide alternative solutions offering a better basis for decision-making. Above all, it offers new insights into complex problems (Tress et al. 2003: 190). Such new approaches can lead to more efficient planning strategies, entail a more effective use of available resources, and ensure the actual integration of landscape into regional and town planning as well as into cultural, environmental, agricultural, social and economic policies. Multidisciplinary teams play more often a crucial role in applying joint approaches to the conservation, protection and management of archaeological and natural heritage (Tress et al. 2004: 485; Ndubisi 2002: 588).

Nevertheless, integrated approaches are no solution to each and any problem in the field.
of landscape heritage management and many of them do not exceed straightforward collaboration. Different disciplinary approaches still can be suitable for specific spatial environmental issues (Tress et al. 2003: 190). Choosing the right approach depends on the problem’s definition and the project’s goal, the applicability of theoretical frameworks, methods and philosophies, and organisational aspects such as funding, team size and coordination.

In this paper, I will explore the different management approaches by illustrating the restoration projects of two Dutch historical gardens, which can be both considered as particular landscapes in their own right.

The garden as cultural-historical landscape
In order to understand a garden as a cultural landscape, it is necessary to be aware of the reasons why landscapes are considered cultural heritage. Across time, humans have shaped their environment in order to satisfy their needs, either physical, aesthetical or spiritual (European Environment Agency 2010: 3). This is why landscapes are part of our culture and identity. Cultural landscapes are not just valued for their functional use like arable land, more often they are appreciated for aesthetic and recreational reasons (European Environment Agency 2010: 3, 5). As landscapes show the interaction between man and nature over the centuries, history is an important aspect to consider in cultural landscape studies (Drury 2002: 12). In addition, cultural-historical landscapes face a specific problem - how to go about knowing archaeological landscapes, since they are covered, in order to manage them in a sustainable way. These hidden landscapes represent the majority of cultural landscapes. They are sources of knowledge about past developments, people, and environments, containing ‘unknown’ information (Bloemers et al. 2010: XI). This is certainly true for historical gardens.

Since the late 1990s, in both landscape studies and archaeology, the relationship between people and the natural environment has developed from approaches oriented on the past that emphasised protection, maintaining and conserving, towards the future by including economic, social or environmental necessity, monitoring and sustainable planning (Council of Europe 2000; Ahern 2006: 128). Traditional environmental or ecological perspectives shifted to notions of sustainability in landscape research, policy, and management. This process of change was triggered by increasing public engagement with environmental issues such as spatial planning, pollution, overpopulation, recreation and tourism, as well as their effects on landscape resources (Cost 2010: 7). Although the cultivated and polished outlook of a garden may seem not to suffer from large-scale natural and planning processes, it is however affected by environmental changes such as rising or falling of water tables, air pollution, increasing numbers of tourists and expanding spatial planning processes. Managing these aspects requires awareness of the peculiarities of the cultural landscape including how people can be connected to the governance of them.

Already from the 1970s and 80s onwards, both in the research field of ecology and archaeology much attention has been given to human-nature relations (Bell 2004: 512). In a way, the acknowledgment of human-nature relations led to the integration of separate disciplines. In archaeology, this process often focused on landscape reconstruction over longer periods and food related subjects such as agricultural economy in the past (Bell, 2004: 513; Van der Valk 2010: 28). Although more recently research has emphasised the understanding of the archaeological-historical landscape with the purpose of integrating connected values such
as landscape perception and societal needs within planning (Bloemers 2010: 4-6), the focus was mainly on integration of archaeology with disciplines belonging to the cultural heritage domain: historical geography and architectural history (Van der Valk 2010: 32). Nowadays, in both archaeology and historical ecology, the basic concept for a balanced future is the human-nature relationship that is found in sustainable development for future landscapes.

The human-nature relationship was acknowledged by the Council of Europe when interpreting the concept of ‘landscape’ as being the key element of individual and social well-being. Therefore, the protection, management and planning of landscapes entails rights and responsibilities for everyone (Council of Europe 2000: 2006). In this regard, the public should have the right to co-create their landscapes via planning and management. This recognition can be further developed by combining articulations of existing environmental and cultural rights that adds new features to be considered, such as the right of active public involvement in decisions that impact landscapes (Egoz et al. 2011: 7). The idea of the public having decisional rights on landscapes touches upon the intangible values landscapes have within ongoing natural and cultural changes. This should allow for more public engagement in policies governing landscapes.

As a consequence of the characteristics of cultural landscapes, future-oriented approaches such as adapted planning that includes accepting uncertainty and risk, and new scientific attitudes in the public discourse, multidisciplinary, transdisciplinary and integrated approaches are strived after within the research fields of landscape studies and archaeology (Ahern 2006: 126-127, 129). Academic disciplines and subdisciplines within the field of humanities, sciences and social sciences nowadays often look for cooperative ways to engage each other and stakeholders in landscape development (Tress et al. 2004: 483). However, landscape values and perception focus on understanding preferences, values, meanings, and experiences of people in interaction with the landscape that requires a far more complex approach than collaborative engagement. Ndubisi (2002: 408) for example, distinguishes three major starting points. Professionality, which is based on arts, design, and ecology, focusing primarily on visual experiences; behaviour, based on social and behavioural sciences, especially psychology, emphasizing visual and affective responses; humanistic, rooted in human geography, cultural anthropology, and phenomenological studies, stressing how relations between humans and landscapes are experienced. This relationship is often focal to archaeological landscape studies and was already examined by Christopher Tilley (1994). The question being, do we always need such a complex line of approach when it comes to cultural landscape management?

Multidisciplinary and interdisciplinary approaches or is it disciplinary after all

In search for integrated landscape management approaches, experts seek out new ways for collaboration and focus on methodological interdisciplinarity. One of the outcomes of the ANHER research project (Archaeological and Natural Heritage Management 2017) was that professionals of both the cultural and natural domain expected to apply interdisciplinary approaches by occasionally consulting experts such as environmental specialists, ecologists, construction engineers or soil experts. By doing so, they confirm their own role as specialists in cultural landscape projects and strengthened a disciplinary approach in the management of cultural landscapes, whether from a natural or cultural (archaeological) point of view.

The outcomes of the project ANHER were presented at the EAA 2017 meeting in Maastricht, the Netherlands.
(Van Londen et al. 2015: 24-25). So, even within a shared work setting and despite crossing boundaries, disciplinary approaches do not necessarily change or lead to collaboration. Interdisciplinarity is therefore not a synonym for collaboration. Although the interest in teamwork to solve complex problems may lead to more interaction between different disciplines, collaboration does not always occur while a cooperative teamwork needs the collaboration of specialists (Klein 2017: 25). On the other hand, in practice, research disciplines are not islands drifting apart. All research fields blend and borrow ideas, metaphors and methods from other domains. Disciplines are not static, they do change and exchange. Especially disciplines in natural sciences, social sciences, and humanities are often grounded in methodological interdisciplinarity (Jacobs 2017: 37; Tress et al. 2003: 185).

On terms and definitions
As can be seen from the previous section, many concepts are unclear when it comes to new approaches in landscape management. What we exactly mean with the terms multidisciplinarity and interdisciplinarity, differ for each project description, research application or scientific tradition. Definitions of the main concepts used in the discussion on interdisciplinary and transdisciplinary studies are numerous and may often be confusing. Tress et al. (2003: 183) for example, suggest the following six definitions:

- **Disciplinarity:** Projects that take place within the boundaries of currently recognized academic and/or professional disciplines, although these boundaries are dynamic.
- **Multidisciplinarity:** Projects that make a research effort of different academic disciplines and/or professional disciplines, related to one subject, but with multiple disciplinary goals. Participants exchange knowledge, but have not the aim to create new knowledge and theory. The project process disciplinary efforts without integration.
- **Participatory projects:** Professionals and non-professional participants are involved to solve a problem. Participants exchange knowledge, but the focus is not on the integration of the different knowledge cultures to create new knowledge. It can be a disciplinary or multidisciplinary project that includes non-professional participants.
- **Interdisciplinarity:** Projects that involve several unrelated academic disciplines, professions or specialisms in a way that forces them to cross subject boundaries to create new knowledge and theory and realize a common research goal.
- **Transdisciplinarity:** Projects that both integrate professionals from different unrelated disciplines and non-professional participants, such as land managers and the public, to research and/or realize a common goal and create new knowledge. These projects combine interdisciplinarity with a participatory approach.
- **Integrated projects:** These work either interdisciplinary or transdisciplinary, in that new knowledge and theory emerges from the integration of disciplinary knowledge.”

An extra dimension on interdisciplinarity is offered by Klein (2017). She distinguishes methodological versus theoretical interdisciplinarity. Methodological interdisciplinarity
aims to improve the quality of results by borrowing a method, for example surveying or sampling, or a concept such as ‘exchange’, from another discipline. As these practices do not lead to change in disciplinary relationships, disciplines are at most supplementary to each other. Methodological interdisciplinarity contributes to the needs of a specific domain or specialism, but grounds in disciplines (Klein 2017: 26). In theoretical interdisciplinarity a conceptual framework is created in order to analyse particular problems and provide a synthesis. This may be a single theoretical perspective that is applied to all disciplines. It may also be that problems lack any disciplinary basis. As a result of the interdisciplinary process methods can be modified and collaboration may lead to new methods and concepts (Klein 2017: 27). The last often used term is transdisciplinarity. This research is transgressive, as it creates new methodical and theoretical frameworks aiming for systematic integration of knowledge, reorganising knowledge by encompassing parts of several disciplinary fields, and prioritising problem solving. The basis is the problem itself, not the discipline. That is why mutual learning and evolvement of all stakeholders is key in transdisciplinarity (Klein 2017: 31).

Is there a need for interdisciplinarity?

It is commonly assumed that landscape research benefits from engaging with different planning and designing disciplines, along with exchanging knowledge amongst professionals, policy makers, practitioners and the wider public. During this process, specialist knowledge can be united with the expertise of policy makers and the understanding and aspirations of the public. The idea is that ultimately, this will lead to the engagement of all stakeholders involved in the field of landscape management, spatial planning and heritage, including political, academic, educational, non-governmental and voluntary parties, as well as sectors such as creative arts, landscape design, industry, commerce, and business (COST/ESF 2010). All these motivations have led to widespread multidisciplinary or interdisciplinary heritage projects and there are high expectations of the results that these new approaches can achieve (Tress 2003: 18). Terms like interdisciplinarity are often mentioned and seemingly applied in ‘holistic’ approaches or as the best method in problem solving for heritage management. They are however subject of a heated debate about the collaboration between researchers and private enterprises, or the way knowledge is produced in cooperation by academic experts and society as part of democratisation processes (Klein 2017: 33). In the end, many interdisciplinary projects combine separate disciplinary approaches without proactively integrating them around a question or problem (Klein 2017: 24).

Interdisciplinarity encounters the relationship between knowledge about complex and singular cases with knowledge about generalized concepts and causalities (Krohn 2017: 41). When applying interdisciplinary research to environmental planning it seems possible to transfer knowledge gained in one case to similar cases. However, relying on similarities without respecting differences in each situation can be misleading; every case may differ and needs another approach (Krohn 2017: 42). There is no denial that complex problems need to be addressed by interdisciplinary teams and that solutions for these problems may require coordinated efforts. Nevertheless, it does not mean that integrated research teams are needed to provide the knowledge base on which management strategies are based (Jacobs 2017: 38). Integration of disciplines is difficult and may take much longer than a single project. Also, interdisciplinary studies are no substitute for disciplinary efforts. They all are useful for specific problems or research questions (Tress et al. 2003: 184-185). This is illustrated by the following examples on the restoration and conservation of historical gardens.
Country houses and estates

Historical gardens at country houses and estates are eminently examples of places where cultural and natural values are intertwined. This follows from the idea that at these places, nature is submitted to design interests in relation to residencies. In garden design, the values of ‘wild’ nature are brought back into a controlled environment based on aesthetic qualities and with specific requirements for maintenance of the entire garden concerning both cultural and natural elements (Turner 2005: 29-30).

Nowadays, in north-western Europe, the management vision on the relationship between the environment and country houses or estates is characterized by the emphasis on design and protection. In the early 20th century, the focus was on protecting parts of the estates, such as trees, tree stands, or house and other built objects. Later, attention was paid to the ensemble of house and garden. Since the 2000s, the focus is to include protection of the immediate and wider environment with specific emphasis on the scenic and situational aspects. Country houses and estates became themes in ‘green’ policy documents, regional and provincial structural visions (Verschuure-Stuip 2015: 18). In the Netherlands, some larger areas with several contiguous estates such as in the provinces of South-Holland and Utrecht, have been designated as protected monuments (Verschuure-Stuip 2015,18; Province South-Holland 2010: 18; Province Utrecht 2014: 9, 11). Currently, provincial policies aim for a comprehensive strategy to redefine conservation, development, and the finance of green heritage. This also includes citizens’ and local residents’ perception of and participation to green heritage. Country houses and estates are regarded as an important part of the inherent landscape characteristics and qualities (Verschuure-Stuip 2015: 18; Province Utrecht 2014: 7,9).
Recording historical values

Provincial policies concerning the restoration and conservation of estates and country houses are put into practice through concepts such as the estate biotope. In this concept, spatial characteristic elements of a country house or estate are described and mapped (Verschuure-Stuip 2015: 19). The descriptions are primarily intended to make clear to developers and other stakeholders which elements in the environment of the estate's facilities are important. Therefore, they are recorded on a cultural-historical value map and become part of local spatial policy. A biotope has two aspects: the physical connection of the estate or country house to the environment (road, waterways) and the existing visual zones (from outside the estate overlooking the area), and what can be seen from the estates: the sightlines (Fig. 1) (Verschuure-Stuip 2015: 19).

Mapping the landscape biotope leads to an information database and can be used as inspiration for spatial planning. In the provinces of South-Holland and Utrecht, mapping is meant to be a resource for the various characteristics and spatial aspects of outdoor spaces. Mapping consists of a list of spatial and visual elements such as avenues, water, viewpoints, sightlines, buildings, gardens, park, and access structure, all emphasizing the coherence of the environment. On the maps, detailed elements are drawn (Fig. 2). All indicated elements on the map are precisely registered in a Geo Information System and can easily be combined with other (open) data, so to have a dynamic database (Verschuure-Stuip 2015: 20).

Figure 2. Landscape biotope Vlietzone Province South-Holland (The Hague, the Netherlands).
Conflicts in historical garden design, restoration and conservation

The quality of restoration and conservation of historical gardens depends on the relationship between the architecture historian and the designer (mostly a landscape architect). The historian makes a mandatory value assessment of a historical green object. However, this historical value proposition, which focuses on user’s value, only describes what is still present on the terrain. For example, a vanished seventeenth century lane structure is not part of the value proposition, while another structure that was added during the 1950s, is included. The method ignores changes through time and the overall structure and composition of the garden. A landscape architect then has to deal with historical values, guidelines for use, and governmental policy and legislation. Sometimes new features need to be incorporated in a historical object to comply with new regulations or future requirements (De Wit et al. 2011: 37).

The practice of carrying out an historical value assessment that leads to subsequent protection clashes with the aim to increase the green object’s value (Luiten 2006). The assessment method is based on buildings, and therefore centred on the static vision that something from the past can be restored or recreated. However, a garden or park is essentially different because of the variability and decline of the living material (De Wit et al. 2011: 38). Another problem that often occurs is that an historical green assessment only consists of an analysis of documents and an inventory of the garden itself. Foundations, plant holes and old paths, though, may lie beneath the surface. During a restoration, essential remaining information is often hidden or damaged (Doesburg et al. 2015: 4).

The often pragmatic use of historical sources in the design process asks for improvement on the actual handling of the historical characteristics of green heritage. Instead of only picking up the interesting historical elements, a designer could aim for convergence in landscape design (Luiten 2006). The design plan then, should provide information on the assessed values of the area by combining notions of past and future. Redesigning landscapes, including historic sites and associated valued resources, is a complex design brief for landscape architects. A dialogue between historians and archaeologists on one side, and designers and planners on the other side can avoid cultural heritage being an attractive animator for civic participation for spatial planning and decision making alone, instead of being a design goal. Key concepts for a fruitful design process are ‘future historical value’ and ‘heritage development’ (Luiten 2006).

Restoration and conservation as part of the design process: Palace Het Loo

Palace Het Loo was built as a hunting lodge in the 1680s and extended soon after Prince William III acquired the crown of England. A formal French Baroque garden was laid out at the palace with straight lanes and trimmed hedges similar to that of Versailles. Twelve years after construction the garden fell into a state of decay after the death of the King. In the 18th century, the palace and the park were left largely unaltered (Ronnes 2015: 205). Louis Napoleon Bonaparte extensively renovated the palatial setting (area) in the 19th century when an English landscape style garden was laid out, which changed the scenery into a more ‘natural’ environment in the tradition of landscape paintings. In the 20th century, Queen Wilhelmina made further alterations. After her death in 1962, the restoration of both the palace and garden in the 1970s and 1980s regained a late 17th century appearance (Ronnes 2015: 207).

The regeneration of the garden was highly debated -and still is- by scholars because by ignoring the changes made in the 18th, 19th and 20th centuries, the actual history of the garden is neglected and offered to selective historical awareness (Von der Dunk 2006: 117; Ronnes...
Criticism regarding the reconstruction plans for the gardens of Het Loo concerned in particular the dismantling of the publicly valued landscape garden, which represented almost two centuries of history, and the reconstruction of the formal garden, whereby the original design aimed at the unification of palace and garden would be lost (Fig. 3) (Ronnes 2010: 193).

At the palace gardens, gradually all the evidence of later periods have been removed to show the classical garden as it was for only twelve years in the 17th century. The reconstruction was meant to be an “almost literal” copy of the original garden. Unearthed fragments of the basins and separation walls, historical documentation and prints were used as a guide to reconstruct the 17th century situation, leading to a classical style garden within a extensive landscape which has remained largely intact. The scarcity of authentic parts in the garden explains the importance that is attached to trees as real relics. Some trees belonging to the former landscape garden of Het Loo were spared in the restoration as a compromise with the opponents of the reconstruction. These trees remained standing as scenic additions (Von der Dunk 2006: 117; Ronnes 2010: 193).

As for many multidisciplinary approaches in heritage management, the nature often is the stronger party, possessing more resources, stronger political influence, and more know-how on how to state interests and to achieve goals (Skoglund & Svensson 2010: 370). During the restoration process of the garden, the natural elements were considered more important than the actual cultural history of the garden. Cultural heritage is only the stronger party on the aspect that it is less disputed by people than nature (Skoglund & Svensson 2010: 380). The archaeological remains in the garden were covered after excavation, thus limiting the historical information available to the designers. For example, in 2003 archaeologists detected the remains of a sloping basin in the upper garden which included two canopies (resting places), a fountain, a cascade, volutes, pipes, and mosaics. After the excavation, it was decided to bring back the place to its ‘original’ state by reconstructing a new ensemble and covering up the archaeological remains (Ronnes 2010: 194). Nature conservation organizations made in this case use of the cultural heritage agenda for communicating nature conservation concerns. As a result, the restored garden exists twice as long as the original one designed in the 17th century (Fig. 4).
Archaeology as part of the design process: Castle Duivenvoorde
According to the archival and iconographic sources, the garden around Duivenvoorde is at least four hundred years old. It developed over different periods, from ‘sleek’ to ‘romantic’ to ‘natural’ (figure 5). The castle was built in the 13th century in a marshy area behind the dunes on a rectangular island surrounded by a moat. A map from 1615 shows an impressive geometric park around the castle: a rectangular construction of waterways and canals, with a vegetable garden and an orchard. The terrain also includes pigeon houses, tenant houses, and a farm with stables. A major renovation in 1631 transformed the medieval castle into a comfortable country house. At the same time avenues, boulevards and graceful parterres were added to the garden (Van Doesburg et al. 2015).

In former studies, archaeologists traced remnants of the old garden at Duivenvoorde and labelled them as ‘historical distortion’ (Van Doesburg et al. 2015: 6). An innovative, comprehensive approach and new research was made possible by restoration activities carried out to open the gardens to the public. This approach led to more specific archaeological questions such as of whether what appears on the historical maps corresponds to what might be found underground; the materials and methods used three hundred years ago for the construction of paths, ponds and sheet piles; and knowledge of the past vegetation through botanical research (Van Doesburg et al. 2015: 6).
To determine the most promising research locations, archaeologists used a historical map of 1717, then those areas have been investigated through digging, coring and mechanical drilling.

It turned out that during the development of the landscape garden much soil was replaced and, in some places more than a meter deep. This meant that all older tracks were erased. By using a metal detector, archaeologists could map the nineteenth-century path structure (figure 6). Additionally, trenches with the remains of two ponds were suitable for botanical research as these preserved organic residues such as twigs, seeds and pollen (Van Doesburg et al. 2015: 7).

**Conclusion**

Both studies on historical gardens show the context in which an integrated strategy can be developed and applied over time.

Cultural history, archaeology and nature preservation were explored in the context of research projects that span from disciplinary approaches to collaborative attempts for integration. They demonstrate how much complex interdisciplinarity may be and how often it is mistaken for being a better practice as opposed to disciplinary strategies. On the contrary, adopting an interdisciplinary perspective is not always the way to add value to the outcome of projects. A practical approach based on a common research goal and a research/project management
strategy that involves critical awareness of methods and theory of other disciplines seem to be a necessity. For an integrated approach, the phase of defining the commongoal should take sufficient time to all participants.

In order to achieve a better work process in the management of historical gardens and their restoration or renovation, it is important to look at the methods and techniques that are currently available. As mentioned above, the historical value assessment is based on historical architecture. To avoid such an approach, the historical value proposition should be part of a multidisciplinary value proposition. This proposition combines historical value, environmental value, spatial value, and use value as comparable and independent variables, including management and exploitation. Ecological value propositions may be available, but are mostly limited to measuring flora and fauna on a larger scale than the historical value proposition, which makes them incomparable (De Wit et al. 2011: 40). By appointing heritage management as starting point for the (re)design of a garden, growth and decay (the history of nature) can be visualised as a characteristic feature of the garden (De Wit et al. 2011: 40). In addition, knowledge of the remains underground provides better preservation. When authentic material can be stored, such as the paving of the paths, the quality of the restoration will increase. In return, it will raise the quality of future research, because the material is preserved as a source of information. Garden archaeology is a relatively new development and this specific archaeological research needs research questions, methods and techniques that are tailored to every specific situation (Van Doesburg et al. 2015: 7).

As integrated approaches are currently pushed and driven forward by funding agencies and research policy, the investment in integrated problem solutions may fail when expectations are high. The restoration and conservation of the garden of palace Het Loo faced the problem of an integrated approach that led to criticism and a public debate on the value of cultural history and authenticity versus ecological lobby and a wide range of opinions. The outcome of the debate hardly served the project’s goal. At Castle Duivenvoorde, the choice of a parallel disciplinary approach did add value to the garden restoration and is therefore a successful step towards interdisciplinarity. Due to a renovation or restauration, architectural historians and archaeologists had to work together to gain insight into each other’s work and vision. Cooperation with local historians, residents and managers also increases mutual knowledge. Garden archaeology then brings together disciplines and expertise, and broadens the view on the interaction between people and gardens (Van Doesburg et al. 2015: 7). Although the project’s processes had a different course, the outcomes have led to attractive touristic features that are acknowledged as green monuments. Disciplinarity is after all a strong base for outreach towards another specialism, domain or field of knowledge.

References
University Press, 3-16.


Luiten, E., 2006. Tot hier... en nu verder: ruimtelijk ontwerp en historisch besef. Oration held in acceptance of the chair of Cultural History and Design at the Faculty of Architecture at Delft University of Technology, Delft.


The culture and nature assets. The current crossovers and the agenda for the future

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Abstract
The paper intends to provide an overview of major crossovers between cultural and natural heritage appearing and executing in political, administrative, economic, societal and academic domains. It discusses complicated processes that have led to overcoming a separation between these two largely distinct domains, which is strikingly embedded in western philosophy. The relevance of such crossovers is examined in the context of challenges imposed by the climate change and major shifts in the understanding of heritage and its role in the society. It concludes by providing some thoughts on the character of the future crossovers between cultural and natural heritage more effectively engaging with the contemporarily emergent issues of social significance.

Keywords: Natural Heritage, Cultural Heritage, Climate, Public Engagement, Sustainability

Introduction
The essay has two intertwined objectives. Firstly, it aims at presenting major forms of existing crossovers between cultural and natural heritage. They were developed as an explicit attempt to overcome the strongly embedded nature of separation between them as well as circumstances and practices leading to strengthening their disengagement. The relevance of such crossovers will be examined in the context of challenges imposed by the climate change that accelerated the hitherto developed forms of integration of natural and cultural heritage questioning their adequacy and demanding more efficient solutions and strategies be implemented at a great speed. These new challenges make it necessary to re-define the relevance and the character of nature and culture assets in drafting a new form of their integration. Climate change and the corresponding debate, questioning the hitherto dominant notion of heritage will be a point of departure for drafting an outline of the agenda for the future forms of integration of the culture and nature assets.

Cultural and natural heritage divergences
Heritage is the concept of a constructivist nature that comprises the development of democratic participation, with objectives to implement a ‘shared responsibility’ that involves citizens and society in the form of public action, to identify values, define priorities and manage heritage-led projects (Marciniak, Pawleta, Kajda 2018). In both natural and cultural heritage sectors, different factors are at play deciding on what is to be considered heritage and how that heritage may be used. The process of conceptualizing the cultural assets and
the socially imposed obligations towards their protection remains largely homogenized.

Heritage has been commonly used for identity construction. It allows to highlight the peculiarities of a territory or human group, showing their characteristics and to build them into some symbols or social agents to promote social cohesion, identities and ideologies. Very often, heritage was mobilized to support particular state structures and political ideologies as well as legitimize the power structures. In this way, images, mythologies, artefacts, historical landscapes, etc. become resources for the present (Graham 2002).

The separation of culture and nature in Western ontologies led to the instrumentalization of the perception of natural and cultural worlds. It is deeply rooted in the past and has a wide range of consequences. In case of landscape, the nature-culture divide has narrowed down its scope to the technical management of either natural or cultural settings. Such binary separation of “natural” and “cultural” landscapes resulted in the formulation of separate national and international legislations and administrative procedures for each of them. This in turn led to the problematic separation of natural and cultural resources in the practice of planning and development. This also created the division between safeguarding natural heritage and cultural heritage. These processes were further strengthened and consolidated by legal regulations and administrative policies introduced and implemented by different authorities acting at different levels, be to local, national and international, setting up an agenda for either heritage management or nature conservation. As a results of these processes, cultural and natural heritage operate in two largely impenetrable organizational frameworks. Two different perspectives on landscape created a deep rift between the nature conservation specialising in natural and „untouched” landscapes and culture protection focused on the cultivated landscape shaped by human activity.

Nearly every country in the world has laws and regulations to define and protect cultural assets. They are diverse in content and application, as they have evolved within their own national political and cultural contexts. Respective legislations vary in scope and have varied over time. In Scandinavia and Poland, for example, all archaeological materials are protected (owned) by the state from the moment of their discovery. By contrast, in England, archaeological material belongs to the landowner (with occasional exceptions of particular items of high monetary value, which can be claimed by the state on behalf of the monarch). In other countries, archaeological sites and materials are only protected if they are formally identified in the centrally organized registers.

Cultural heritage got inscribed a particularly significant role by the European Union. It defines Europe's cultural heritage as a common, inherited wealth, a legacy composed by knowledge and a valuable resource for economic growth, employment and social cohesion (Culture Heritage 2018). It developed effective tools to enhance these performances through treaties, financial programmes, awards and promotion activities. Even so the EU does not pay a major role in legislating for cultural heritage and cultural heritage management, it produced a number of policy treaties to establish the character of its different dimensions and relationship with other domains. The most important was the formulation of major principles relating to the cultural heritage in The Consolidated Treaty on the Functioning of the European Union itself (2012 Article 167). A similar purpose served both the European Convention on the Protection of the Archaeological Heritage (1992) and European Landscape Convention (2000).

Nature conservation regulations and practices have been shaped differently but share a
number of common trajectories with that of culture. The first phase of institutionalizing the managerial practices related to natural heritage assets assumed an increase of their abundance. The concepts of rationing or sparsity were non-existent or a rarity at that time. The dynamic and speedy development resulted in a steady exhaustion of these resources. The speed of these degradative processes differed across different countries and types of targeted resources. One of the most appealing problems was pollution, in particular endangering the availability of drinkable water. Many other natural resources got lost to spoilage from pollution.

As people begin to become aware that their resources are becoming depleted, different strategies got implemented to counteract their loss. The early policies tend to be based on banning or limiting the exploitation of resources. For animals and plants this might involve the creation of special areas, such as parks or nature reserves, to protect some of the resources in pockets of the landscape. This had mainly some form of game management involving a system to manage animal resources so that they can be hunted in a controlled way. The corresponding solutions involved introducing different forms of restrictions on who can be hunt, permitting systems, or game reserves to breed animals for hunting. These initial efforts have contributed to the restriction in the loss of natural resources and, in some cases, have contributed to their regeneration. Consequently, many countries move on to the practice of nature conservation. The explicit plans for sustainable management and use of resources got formulated and implemented.

Cultural and natural heritage crossovers

Due to an increasing awareness of the depletion of natural resources, environmental movements strengthened their political importance by framing the idea of threat, the need for care, and unpredictable forces. At the same time, cultural heritage was no longer seen as an important political player because of a misconceived image of an outmoded sector, saving artefacts merely for display in museums for future generations. Against politicised nature conservation, cultural heritage management became marginalised (Skoglund & Svensson 2010). In these circumstances, the idea of cultural heritage as non-renewable resource was drafted and the way of thinking about heritage paved the ways to different groups of practitioners.

The call for integrative approach to natural and cultural assets involves a number of perspectives, as identified by Bell (2004). These comprise, among others, a historical perspective on biodiversity changes, in particular links between past extinctions and human activity such as gradual deforestation or drastic environmental change, deforestation causing social collapse, and warfare. As communities were clearly responsible for deforestation, one of the reasons for social collapse may have been the endemic environmental impact, the character of landscape acidification as a progressive process through the later Holocene, a result of both natural processes and human actions; an acceleration of acidification is due to the increased fossil fuel usage.

In the draft of the Territorial Agenda of the European Union 2020 (2011), adopted in 2011 by Ministers responsible for spatial planning and territorial development, both natural and cultural heritage are defined as parts of the EU’s territorial capital and identity. The document stated that ecological values, environmental quality and cultural assets are crucial to well-being and economic prospects. Over-exploitation of these natural resources is recognized as a threat to territorial development.
Despite these developments, integrative policies and solutions related to both cultural and natural heritage remain to be unsystematically defined and remain largely unknown by professionals from the corresponding sectors. This situation pertains despite continuing attempts by UNESCO and the Council of Europe to define different dimensions of the common ground, advocate the forms of cooperation by underlying the equilibrium between cultural heritage promotion, preservation and environmental sustainability.

However, promising crossovers between natural and cultural heritage remain to be addressed and executed in political, administrative, economic, societal and academic domains. These comprise policy making, administrative regulations, economic and sustainable developments, heritage conservation and protection agendas, public engagement solutions and the academic dispute.

One of the most visible and representative crossovers between natural and cultural domains is landscape. From the culture standpoint, landscape is a cultural property that represents the combined works of nature and the humans. According to UNESCO, different landscapes developed throughout the history, are illustrative of the evolution of human societies and their settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal (Guidelines 2013). At the same time, natural landscape is defined as a landscape that has not been affected by human activity. It implies it is intact with all its elements to live and changes without any influences. The increasingly dominant understanding that all elements of the landscape are now under threat triggered the necessity to integrate efforts to restrict this danger. These comprise decreases in population, changes in agriculture, political interventions and climate change they all contribute to the challenge of maintaining shared heritage.

Natural and cultural heritage crossovers in political and administrative domains
The first institutional attempt to integrate natural and cultural sectors was made by UNESCO when adopted a landscape category in its World Heritage List (Cultural Landscapes 2019). It refers to the concept of mixed heritage, which is understood as containing elements of both natural and cultural significance.

In the framework of European legislation, natural and cultural heritage are combined in the unifying concept of landscape. The most prominent example of an integrated treaty within the framework of united natural and cultural ideals under the remit of landscape is European Landscape Convention (2000). The document sets out that landscapes are

“a basic component of the European natural and cultural heritage, contributing to human well-being and consolidation of the European identity” (Preamble of European Landscape Convention)

Accordingly, landscapes are to be safeguarded, but also to be used and enjoyed. Both European societies and governments have to balance these needs

A different dimension of these mutual relations was added by Council of Europe Framework Convention on the Value of Cultural Heritage for Society, known as the Faro Convention, adopted by the Council of Europe in 2005 (Council of Europe 2005). The document aims at promoting an integrated approach to policies concerning cultural, biological, geological and landscape
diversity to achieve a balance between these elements. It also reinforces social cohesion by fostering a sense of shared responsibility towards the places in which people live.

*The Florence Declaration on Heritage and Landscape as Human Values* adopted by ICOMOS (The Florence Declaration 2014) defined landscape as a fusion of culture and nature, empowering a multidisciplinary approach towards cultural landscapes:

(a) cultural landscapes should not only be interpreted as conservation areas but also as places where sustainable development strategies can be successfully applied and

(b) concepts such as “natural” and “cultural” have lost much of their meaning, being replaced by a biocultural understanding, where not only settlements and agriculture, but also species and habitats are determined and preserved by people.

**Natural and cultural heritage crossovers in economy and sustainable development**

One of the most pronounced forms of integration between culture and environment is the concept of sustainable society and sustainable development. It is built on three pillars: social needs, economic activity, and the environment. The balance between these three elements is needed to achieve the effective sustainability. As landscape has both natural and cultural components, its new reformulation supposes a strong bond with sustainable human development. It can be a key point to stimulate economic activity, especially in places with important cultural and natural resources.

Hence, it is not surprising that the most eminent crossovers in cultural and natural assets of landscape are in the economic domain. Last years brought about severe threats in Europe and elsewhere influencing landscape. Large areas of land are being developed for new infrastructure projects or by spatial planning. Many countries have to cope with the direct effects of climate change. Some species and habitats can move or disappear because of global warming or disturbance by humans, and cultural heritage becomes endangered by rising sea levels or building activities.

These developments direct and indirect consequences in the economy. Since the 1990s a reflection on the economic potential of heritage - both cultural and natural - has generated evaluation policies and effective development strategies. Land use planning, pertaining to aspects of landscape and integrating heritage with regional policies, was developed as an element of sustainable development. It is explicitly stated by *European Landscape Convention* (2000) declaring that this approach

> “concerned to achieve sustainable development based on a balanced and harmonious relationship between social needs, economic activity and the environment” (Preamble of European Landscape Convention)

One major challenge identified with sustainable landscape planning is uncertainty and unpredictability. Landscapes are always subject to change, so sustainable landscape planning needs to be adaptive. This adaptive planning requires transdisciplinary and monitoring (Ahern 2006). This involves an avoidance of land uses that deplete natural resources over a broad area and/or affect cultural heritage but at the same time retaining large contiguous or connected areas that contain critical habitats and/or elements of cultural importance. It is also required to minimise the introduction and spread of non-native species or implement
land-use and land-management practices that are compatible with the natural potential of
the area and/or the cultural heritage present in the area (Dale et al. 2000).

Due to interconnection of cultural and natural heritage, the adoption of integrated
approaches aimed at protecting, managing and presenting the landscape might ease the
implementation of more efficient planning strategies at the regional level. Among the sites
that require integrated management of the natural and cultural assets are: rock art sites,
which require complex management for heterogeneous nature of the artifact and integration
into the environment; underwater cultural assets, which require strategies of search, retrieval
and preservation completely environmentally friendly; or earthen theaters, requiring constant
monitoring of the geological environment and the weather.

Different international organizations developed relevant policies and methodologies for
operational activities of landscape management. They challenge the artificial separation
between conservation and innovation, seeing cultural landscapes as lessons to be learnt in light
of new models of economic development, responses to climate change, risk management,
biodiversity conservation and the human well-being. The Economics of Ecosystems and Biodiversity
(TEEB) - an international initiative advocating the benefits provided by biodiversity - carried
out an analysis of the economic impact of biodiversity. It is clearly stated that

“The values of nature vary according to functional local bio-physical and ecological circumstances
and the social, economic and cultural context. Intangible values, which may be reflected in society’s
willingness to pay to conserve particular species or landscapes, or to protect common resources,
must be considered alongside more tangible values like food or timber to shops provide a complete
economic picture” (Guidance 2013 11)

Natural and cultural heritage crossovers in societal values
The integration of environmental and cultural heritage has always been characterized by a
condition of permeability and interrelation, as evidenced by the theories of social history
and human geography. The Council of Europe interprets the concept of landscape as being
the key element of individual and social wellbeing and that its protection, management and
planning entail rights and responsibilities for everyone. In this regard, the public should have
the right to co-create their landscapes via planning and management. This recognition can be
further developed by combining articulations of existing environmental and cultural rights
that adds new features to be considered, such as the right of active public involvement in
decisions that influence landscapes (Egoz et al. 2011). The idea of the public having rights
to landscapes touches upon the intangible values landscapes have within ongoing natural
and cultural changes, which should allow for more opportunity to be involved in the policies
governing landscapes.

The reorganisation of land to adapt to societal needs results often in rapid changes to the
environment (Antrop 2006). The transformation of natural landscape into cultural landscape
involves two types of processes:

(a) meaning assignment to a place and creation of rituals and cultural habits (to
be considered as intangible heritage): for example, selected natural elements are
considered sacred (trees, mountains, rivers, etc.) and

(b) creation of a physical structure aimed at the functional transformation of the
In order to make cultural and natural heritage available to the people, it should be systematically presented to different audiences. Integrated heritage can be characterised by approaches which take into account outreach ‘by’ and ‘for’ the public. By raising awareness and involving the public in heritage protection, sustainable landscape management can be accomplished. It is necessary to encourage people to care for their heritage, which should stand alongside the concept of sustainability in the context of landscape development.

The public outreach has different forms. Cultural and natural heritage are to be communicated in different ways, through enterprises, tourism and recreation. One of its common form is its opening up to public visitation, museums and art exhibitions. Integrated heritage also has the potential to be presented by private citizens. Information on the value of both natural and cultural heritage could be provided through tours or audio/visual technology, highlighting how they complement and sustain one another. Presenting heritage diversity is relevant for sustainable development.

A significant feature of the community engagement process for environmental heritage management is the close relationship - historically founded - between social history and territory. The knowledge of history of territories makes it possible to understand the profound relationship between environment and society, and to recognize the historic origin of land management methods.

Important approaches for cultural landscapes comprise the biography of landscape (e.g. Roymans et al. 2009) and the Historic Landscape Characterisation (HLC) (e.g. Aldred and Fairclough 2003). These approaches aim to deliver integrated information on historical landscapes in spatial planning by taking into account layered sources of information with a long term perspective. The biographical approach aims for an exploration of the long term and diverse histories of landscape by using a personal and social perspective. This exploration is based on two notions. Firstly, the idea that landscapes have the potential to absorb aspects of people’s lives, works, and thoughts. Secondly, landscapes shape people own life-histories, temporalities and rhythms, surpassing human life. The HLC approach aims to characterise the distinctive historic dimension of today’s urban and rural environment within a given area by mapping the comprehensive historic dimensions of landscape areas, focusing on locally distinctive components.

Natural and cultural heritage crossovers in the academia

The integrated approach to cultural and natural heritage has also numerous academic and conceptual iterations. Since the 1970s and 1980s, human-nature relations have been given due consideration in the research field of ecology and archaeology. As natural, untouched ecosystems are rare across the globe, archaeology is a key factor in the research of humanity’s historical impact on living ecosystems (Bell 2004).

Environmental archaeology studies how the natural environment, resources and processes influenced past human behaviour, including long-term evolution and the adaption to the environment during the past thousands years. It aims to understand, by a multidisciplinary approach, whether the environment was a driving force for cultural change or mainly a factor in cultural developments. It involves studying paleoenvironmental remains to provide empirical evidence to show how humans have responded to environmental changes in the past.
Bioarchaeology covers the study of all biological remains of humans, plants, animals and insects from archaeological sites. It is a singular disciplinary approach combining several layers of knowledge. It involves cooperation with botany, zoology, human osteology and funerary archaeology as well as geoarchaeology and isotope archaeology. The field encompasses, for example, investigations of ancient diets on the basis of stable isotope values in bone and teeth, and combines scientific methods with ecological, ethnographic and historical approaches to reconstruct past diet, land use and lifestyles in their evolutionary and social context.

Human ecology is the science that studies the interaction between humans, society and their environment (Richerson et al. 1996). It is interdisciplinary and therefore there need not be a division between scientists and human ecologists. It studies the relationship between humans and the biosphere over time and uses the insights of different disciplines, combining natural and social science. It can be studied at any scale and concerns different subjects of study, cultural characteristics, natural features or habitats. Historical ecology refers to the area in which human activity has taken place and explains the changes in the landscape based on records of human activities. As a resource, it uses archives as well as the landscape itself (Baleé 1998, Crumley 2014).

One of the main global challenges today is the establishment of sustainable society, meaning “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations Report 1987). ‘Sustainable development’ is therefore a unifying concept that needs an interdisciplinary approach involving collaboration from different unrelated academic disciplines in order to cross borders and create common goals, often with a social aim. Planning and public administration studies are the most suitable fields to investigate external integration within environmental developments, for which discourse analysis can be used for reflection on current practice. During that process, perception, interaction and communication are key themes for which an operation and its impact must be guided and controlled.

The complexity of landscape can be understood by being aware that landscape represents the relationship between people and place. After all, landscape is the setting for people’s daily activities, where different environmental components - both natural and cultural - interact and are valued and appreciated by people. The outcome of all interactions create dynamic and evolving landscapes which can best understood in contextual and historical perspectives (Bohnet 2010). More recently, considerable research has emphasised the understanding of the archaeological-historical landscape with the purpose of integrating connected values within planning (Bloemers et al. 2010). However, the focus was mainly on integration of archaeology with disciplines belonging to the cultural heritage domain: historical geography and architectural history (Van der Valk 2010).

Although integrating data in archaeology has been common practice since the 1970s, it is mainly since the emergence of landscape studies that disciplines from different spectra of science are being combined. Landscape studies are therefore, by definition, interdisciplinary. Integration of the different disciplines needs to be bound by a common goal to create new knowledge and bring ‘wholeness’. This holistic approach integrates different disciplines that can be deemed as ‘useful’. This means that within the context of the landscape, these aim to bring together the ‘whole’ of the landscape. In this, the holistic approach differs from holistic ecology. The latter seems suggests that landscapes are to be considered a complex whole that is more than the sum of its parts, indicating that all elements in the spatial structure of the landscape are
related to each other to form a complex system (Antrop 2006). A holistic approach, however, suggests that landscape development includes biological, physical and human components and is therefore a useful approach to challenge rapid change (Palang et al. 2000).

**Natural and cultural heritage crossovers: the case of climate change**

Natural heritage has been countlessly overexploited throughout the 20th century. They involved the conversion of large parts of the world’s grasslands to arable fields, oil extraction or open pit mining exploitation have heavily changed ecosystems. Climate change is probably the most prominent environmental issue today.

Due to these dramatic changes of far reaching consequences, the conception of environment has significantly changed resulting in the revision of policies and methods of land management. This involved a shift from a conception focused on damage prevention to the formula based on the integration between man and its culture and environment, in compliance with the dynamic nature of global ecosystem. Climate change remains one of the most pronouncedly present issues in academic circles, public discourse, economic strategies and social discourse. This poses important challenges both for its scientific explanation and its humanistic understanding (Coen 2018). The most efficient mitigation strategy requires an improvement of cross-cultural and expert-lay dialogues and finding common ground for transdisciplinary collaboration aimed at integrating cultural and natural heritage domains. It makes it possible to go beyond the domain of climate researchers and make its meaningful beyond this narrow scholarly domain.

Rapid climate change makes also the existing strategies of protection and management of cultural assets largely unsatisfactory. It is due to the fact that it presents an array of challenges, such as from loss from erosion, fires and sea level rise to disconnection due to migration and loss of contact of affiliated communities, and damage deriving from conflict and other social changes. Climate change is certainly a whole-of-society problem, which means that heritage sector alone cannot solve its challenges.

Accordingly, the concept of co-dependency of humans on nature needs to be shifted to notions of sustainability in landscape research, policy, and management. This process of change was triggered by increasing public engagement with environmental issues such as spatial planning, pollution, overpopulation, recreation and tourism, as well as their effects on landscape resources.

**Beyond heritage. Nature and culture crossovers in the new era**

A reflexion of irrelevance and inaccuracy of the divide between cultural and natural heritage paced its way to different sectors of contemporary life. This is particularly pertinent if they are to meet challenges of the increasingly globalized world. This tendency has been additionally enhanced by recent theorizing these attempts, as manifested by the concept of connectivity ontologies, advocated by R. Harrison (2015), or multi-naturalist perspectives proposed by B. Latour (2011). Both authors aim to broaden the discussions of sustainability to encompass human and non-human actors and environments. The increasingly appealing call is also heard from the heritage sector. As cultural heritage encompasses elements of nature and nature is an intrinsic element of the past shared culture heritage, the need of integrating both types of heritage is inevitable. The preservation, management, and conservation of such integrated
heritage should become an indispensable element of international and national policies as well as every conservation activity.

Existing crossovers convincingly proven a need to adopt a perspective based on a harmonic conception of the relationship between nature, human beings and global changes. The human attitude, in fact, adopted criteria and methodologies of systemic design, transforming the environment into a system of interconnections. As argued by Taylor (2009: 90) “... systems-based views, values, social structures, technologies and economic processes are rapidly emerging”. These represent a paradigm shift in scientific and social thinking: from viewing the world as a collection of unconnected objects to seeing reality as a nested holarchy of interacting systems. Taylor (2009) then adds “[...] The emergence of this holistic worldview creates the potential for the rapid development of a sustainable societal system”. A conception of ecosystem as “holism” moved then to a holistic concept of environment management, aimed at developing tools and policies for (ecological, social and economic) sustainability.

These attempts clearly correspond with the increasingly explicitly articulated voices calling for the redefinition of the concept of heritage as well as significance and relevance of both cultural and natural assets in the public domain. This requires to overcome the hitherto dominant pressure of neoliberal mandates in institutions to think in ways to make archaeology ‘useful’. As convincingly argued by González-Ruibal et al. (2018), contemporary archaeology needs to formulate a new agenda accommodating three intertwined standpoints:

(a) Departure from the need for the heritagization of things, people and cultural processes and the largely elitist definition of the category of heritage,

(b) Involvement in a public debate by problematizing and challenging the ongoing debates and corresponding narratives, histories and identities. Its role should not be restricted to story-telling but be actively involved in historical explanation and position itself in relation to the contemporaneity and its most appealing issues,

(c) Pedagogical potential that converses with social movements, communities, and institution rather than teaches about the past.

When applied to the existing forms of combined forms of integration of cultural and natural heritage, this would require re-defining and modifying their hitherto developed formats. This is in particular to challenge and official position of the EC that used to consider that Europe’s cultural heritage is a common, inherited wealth, a legacy composed by knowledge and a valuable resource for economic growth, employment and social cohesion. Hence, it made efforts to stimulate cultural heritage as a tool for social cohesion and integration, through regeneration of neglected areas, creation of locally-rooted jobs, and promotion of shared understanding and a sense of community.

A potential of the qualitatively new format of crossovers between the two domains is well illustrated by Bloemers at al. (2010), who outlined a new position of landscape in the changing world:

(a) Securing landscape as common good, and enhancing and safeguarding its key values to society,

(b) Coming to terms with mobility and evolving lifestyles, by better understanding changes in landscape perception and value brought about by different lifestyles,
Using landscape in its long-term social and human as well as physical transformations over many millennia to understand current processes of change,

Using landscape as baseline and context for future changes, including - urgently - to use knowledge of where society is starting from in terms of its long past interaction with the environment, in order to anticipate, model and plan for future change.

The future challenges for integrative approach to the culture and nature assets need to involve different way of encountering the materiality of both pasts, communicating them as well as using them the form of engagements of the contemporarily emergent issues of social significance. Such strategy will help landscape research to fulfil its potential for contributing to solving actual societal and environmental problems. The innovative edge of this vision is founded on the recognition of the mutual benefits that will flow when a strong humanistic, cultural and social perspective on landscape is combined with the physical and natural sciences approaches that more commonly form the focus of practical policy.

References


https://rm.coe.int/168007bd25

https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/199

http://www.hercules-landscapes.eu/blog.php?what_is_historical_ecology&id=10
https://rm.coe.int/1680080621.


Interviews & Reviews
Arte, Archeologia, Uomo E Natura: Una Conversazione Con Fabio Fogliazza

Matteo Cantisani, School of Archaeology and Ancient History, University of Leicester, UK
Fabio Fogliazza, Museo di Storia Naturale di Milano, Italia

Introduzione
Fabio Fogliazza è il tecnico per la preparazione di fossili presso la sezione di Paleontologia del Museo di Storia Naturale di Milano, nonché illustratore scientifico ed artista di fama internazionale. Una delle sue opere più famose è la scultura “L’Uomo di Neanderthal”, oggi esposta in via permanente al Museo de la Evolución Humana di Burgos (Spagna). In molte sue opere Natura e Uomo vengono riprodotti secondo processi creativi, ponendosi di fatto come piece d'art dalla forte carica emotiva, in grado di suggestione al pubblico nonostante la distanza geografica e temporale che spesso intercorre tra chi osserva e il soggetto rappresentato. Come redazione siamo entusiasti della possibilità di discutere con Fabio Fogliazza alcune tra queste sue opere in questo numero di Ex Novo, in cui tematiche di management, tutela di beni naturali e conservazione vengono non solo trattate attraverso le lenti scientifiche del sapere ma discutendo anche di approcci in cui emozioni ed esperienze sensoriali vengono incorporate in strategie più complesse. Di seguito si riporta la breve intervista con l’artista Fabio Fogliazza, che ci ha gentilmente permesso di riprodurre in copertina due delle sue opere ed altre ancora di seguito presentate.

Matteo Cantisani: Per iniziare, perché non ci racconti un po’ di te? La scultura de “L’Uomo di Neandertal”, pubblicata sulla copertina del National Geographic Spagna e Portogallo (numero del maggio 2013) è forse tra le opere più famose che hai realizzato ma il tuo percorso artistico è stato lungo.

Fabio Fogliazza: In effetti si. Ho iniziato con la realizzazione di illustrazioni a corredo di pubblicazioni scientifiche: bianco e nero, a china, molto precise ma molto standardizzate… questa tecnica fu il primo passo. All’epoca, quando cominciai nel ’92 a collaborare con il Laboratorio di Paleontologia del Museo, il mio lavoro consisteva principalmente in questo e nella preparazione di fossili…sono sempre stato un appassionato di fossili. Solo successivamente si è presentata l’occasione di lavorare a pubblicazioni di più ampio respiro, divulgative e con esse sperimentare nuove tecniche. Mi piacque subito l’acquerello.

MC: Un appassionato di fossili?

FF: Sì, da ragazzo: è stata la passione che mi ha portato a frequentare il Museo di Storia Naturale e la sua biblioteca. Grazie a questa frequentazione, una volta finita l’Accademia di belle Arti di Brera, iniziai a collaborare attivamente con l’Istituto. Il caso ha voluto che proprio allora si era appena concluso il recupero dello scheletro fossile di Besanosaurus (un rettile marino della famiglia degli ittiosauri, lungo circa 6 metri, NdR), dallo scavo del Sasso Caldo (VA ) e c’era bisogno di personale per la preparazione: 17.000 ore di preparazione al microscopio. Eravamo tre tecnici, allora. Da cosa nasce cosa e i contratti si sono susseguiti fino a che non sono stato assunto per pubblico concorso nel 2009.
MC: E la natura in tutto ciò?

FF: Le rappresentazioni naturalistiche seguirono alle prime esperienze. Un primo avvicinamento a questo tipo di illustrazioni fu attraverso la ricostruzione del contesto ecologico marino del Triassico medio, geomorfologia dei fondali e fauna, sulla base delle evidenze del giacimento di Besano / Monte San Giorgio, oggi patrimonio UNESCO.

MC: Una voglia di raffigurare non solo un soggetto, ma interi mondi scomparsi?


MC: E l’uomo? Che ruolo ricoprono in tutto questo le tue splendide raffigurazioni di uomini e donne del passato e del presente?

FF: L’uomo è stato sempre, lo è ancora oggi, la mia grande passione. E’ stato grazie all’uomo peraltro che ho avuto occasione di sviluppare collaborazioni con diversi specialisti, soprattutto archeologi preistorici, ormai amici, in particolare dell’Università di Ferrara: l’archeologia preistorica è un grande amore, ancora attuale.

MC: Ti riferisci alla già citata scultura “l’Uomo di Neanderthal”?

FF: Si, in particolare ma non solo. Marco Peresani e la sua equipe avevano concluso da poco la campagna di scavo annuale alla Grotta di Fumane sui monti Lessini in Veneto, uno dei giacimenti più importanti in Italia per quanto riguarda le testimonianze inerenti la transizione Neandertal/Sapiens in Europa. Nel contempo avevano appena pubblicato i risultati delle loro scoperte nei livelli di occupazione musteriani, quelli appunto del Neanderthal. Nacque l’idea di offrire al pubblico e al mondo accademico una rappresentazione basata sulle nuove evidenze, che fosse in grado di esprimere quella componente creativa e simbolica del suo comportamento che fino ad allora era considerata una prerogativa esclusiva di Homo sapiens….mi riferisco al gusto di ornarsi, con tutte le implicazioni sociali e comunicative. Quella scultura è stata in primo luogo un’operazione culturale d’equipe molto ben riuscita: ancora oggi chi volesse riproporre una interpretazione artistica dell’uomo di Neanderthal dovrebbe fare i conti con la nostra.

MC: Dunque si può dire che questo è stato un punto di svolta, se così si può dire, nel tuo percorso di artista e illustratore?

FF: In buona parte sì, ma anche la mostra che Juan Luis Arsuaga mi ha dato l’opportunità di organizzare al Museo de la Evolución Humana (Burgos, Spagna), nel 2014: erano esposte, oltre al modello del Neanderthal, che ora è lì in via permanente, anche alcune mie illustrazioni. Da quel momento mi sono sentito più libero nelle scelte interpretative…i riscontri sono positivi in questo senso. Per fare un esempio: la scelta di disegnare un Neanderthal che gioca a fare l’ombra cinese davanti al focolare (la cosiddetta struttura III di Grotta Fumane) va in questa direzione. Non volevo semplicemente rappresentare l’uomo di Neanderthal seduto
vicino al fuoco ma evocarne la modernità. Anche dal punto di vista tecnico mi sono liberato da quei vincoli didascalici che dicevamo prima e ho imposto un mio stile espressivo: può non piacere ma se qualcuno mi chiedesse un’illustrazione, lo farebbe sapendo che quello sarebbe il risultato.


MC: Questo capovolgimento del punto di vista è molto interessante e sappiamo però che difficilmente etichettiamo le tue opere come politicamente impegnate ma a questo punto, ed avviandoci verso la conclusione di questa conversazione, la domanda ci sembra d’obbligo: come lo vedi oggi il nostro rapporto con il mondo naturale?

FF: Le mie finalità, intendo professionalmente, non sono quelle di Greta Thunberg;
l’approccio ai problemi scientifico/artistici sono altro rispetto all’impegno civico nei confronti dell’ambiente. Non mi sono mai posto la domanda se il pubblico potesse interpretare i miei lavori in senso ecologista; ripeto, non l’ho mai considerato. Chiaramente se così fosse, ne sarei lusingato. Ad ogni buon conto, tutto sommato, credo che siamo dei bravi ragazzi. Gli uomini, intendo: un po’ casinisti ma le preoccupazioni verso il nostro bel mondo, le abbiamo. Sono gli interessi economici lo scoglio difficile da superare, soprattutto per chi da quegli interessi ne ricava il proprio benessere e che, guarda caso, possiede anche il potere di veto (devo fare nomi? no dai!) perché agli altri, che sono la maggior parte di noi, per esempio quelli che attraversano il Mediterraneo, probabilmente stanno a cuore altre cose. Sto sembrando un politico, chiudiamo l’inciso.

**MC: Grazie mille Fabio, per il tuo tempo.**

FF: Grazie a voi, mi sono divertito.
Figura 3: Totem (disegno di Fabio Fogliazza su commissione del Museo Naturalistico Archeologico di Vicenza ©)
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