Dancing with cranes: a humanist perspective on cultural ecosystem services of wetlands

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Dancing with cranes: a humanist perspective on cultural ecosystem services of wetlands

Lusine Margaryan, Solène Prince, Dimitri Ioannides, and Michael Röslmaier

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ABSTRACT
Cultural ecosystem services (CES) are important spatial elements providing humans with recreational, esthetic, spiritual, and other benefits. Yet, because of their immaterial, subjective, qualitative, and unmeasurable nature, this means that scientists, decision-makers, and general public often find their value difficult to grasp. We enrich the CES approach with theoretical insights from humanist geography, where we frame CES as arising from perpetual interactions between humans and their environment. Places are formed through various processes, both organic and planned, which endow people with unique identities, experiences, capabilities, knowledge, and skills. We use the rural wetland area of Lake Hornborga, Sweden, with its complex history of restoration phases, to explore the profound interrelations between environmental spaces and cultural practices expressed in the everyday activities of learning, playing, creating, caring, producing, and consuming. The data was collected through qualitative methods, including interviews, observations, and a focused group interview, in order to capture these unique senses and experiences. The findings outline CES as key drivers behind the formation of place, rather than mere labels for inventoring benefits people receive from nature. The presence of the iconic migratory crane is especially conducive to a positive sense of place and the practice of various activities, including tourism, around the wetland. We frame the implications for planning and future research of our findings within a context of ethics.

KEYWORDS
Cultural ecosystem services; place making; cranes; wetlands; Sweden; case study

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Introduction

The ecosystem services (hereafter ES) approach emerged as an attempt to explicitly recognize and include into decision-making the myriads of linkages between humans and their environments. Overall, ES can be understood as any benefits that people derive from nature (Grunewald & Bastian, 2015; MEA, 2005), or direct and indirect contributions of ecosystems to human well-being (De Groot, Alkemade, Braat, Hein, & Willemen, 2010). The foundation of ES was laid already in the 1960s, when environmental economics emerged as a sub-discipline to find ways of accounting for market failures and integrating the value of ecosystem services, previously ruled out as ‘externalities’ (Barbier, 2011; Scorse, 2010). According to this approach, the solution to deterioration of natural resources (many of which have the characteristics of public goods) lies in the proper identification and valuation of these ‘positive externalities’, that is ES, and integration of them into economic decision-making (Gómez-Baggethun, De Groot, Lomas, & Montes, 2010). In this light, the concept of ES is closely interlinked with the ideas of sustainable development and the possibility of ‘marrying’ economy and ecology, emphasizing the centrality of human actions for the well-being of the planet and, consequently, their own. Spearheaded by the landmark Millennium Ecosystem Assessment reports (MEA 2003, 2005), ES have been firmly established within global scientific and public discourses, percolating into multiple publications, policy documents, programs, and projects.

Among the multiple ES, cultural ecosystem services (hereafter CES) are of particular interest for tourism geographers. According to the MEA (2005), CES are services that provide recreational, esthetic, and spiritual benefits. Most common examples of CES found in the research literature include tourism and recreation opportunities, esthetic pleasure, spiritual experience, sense of place, or symbolic value (Grunewald & Bastian, 2015; MEA, 2005). Unlike many biophysical ecosystem services, the value of which often might be hard to grasp for the general public, CES are directly experienced, intuitively understood and widely appreciated.

The level of appreciation of CES, however, also depends on the type of ecosystems and their historical role within a given culture. For example, mountains and forests were central in the formation of the national identities of the Scandinavian countries, becoming omnipresent in their cultural imagery (Sandell & Sörlin, 2000). In this article, we focus on the cultural importance of wetlands, which are among the least appreciated and most degraded ecosystems worldwide (Lee, 2017; MEA 2005). Arguably, a wetland ecosystem’s CES are less visible and harder to capture than those of forested and mountainous areas. It becomes interesting to ask the following research question: What is the role of a wetland cultural ecosystem services in place formation? This necessitates holistic qualitative approaches towards CES, a point explicitly argued by several authors (Chan, et al., 2012; Fish, Church, & Winter, 2016; Milcu, Hanspach, Abson, & Fischer, 2013; Plieninger, Dijks, Oteros-Rozas, & Bieling, 2013).
Our empirical case is a rural wetland in Sweden (located to the north-east of the city of Gothenburg), which encompasses a shallow lake – Lake Hornborga (Hornborgasjön in Swedish). Lake Hornborga is an exemplary case to study CES and place formation, since its history reflects historical shifts in values and relationships between people and wetlands. Currently the lake serves as a unique staging site for the Eurasian crane (Grus grus), the dancing display of which attracts thousands of tourists each spring, affecting the life of the surrounding communities. The lake’s restoration was a planned top-down process, initiated by the state authorities, in an attempt to integrate in-situ biodiversity conservation into the lived landscape. This later developed into a mecca for birdwatching tourists. Lake Hornborga is a place of convergence of multiple interests, demonstrating how the formation of place takes shape through the experience of various stakeholder groups functioning in relation to a wetland’s CES.

We aim to enrich the CES approach with theoretical insights from human geography, more specifically from humanist geography. We do this to flesh out the importance of meaning people attribute to place in the human-environment linkage at the center of the CES. We adopt a relational approach towards CES, understanding these as arising from the interactions between humans and their environment. Humanist geographers have long established that places cannot be considered as mere coordinates on a map; they evoke meaning in relation to their physical and social elements (see Buttimmer, 1993; Buttimer & Seamon, 1980; Relph, 1976; Tuan, 1977). It is through experience that places come into being, when their inhabitants make sense of their material and symbolic world in different ways (Ingold, 2011; Riley, 1992; Tuan, 1977, 1974). Thus, it is important to consider the various relations people entertain with their surroundings in order to understand the formation of places and their meanings.

In a first instance, we critically explore CES, where we consciously move away from the classic MEA (2005) definition of CES as purely non-material benefits that people unidirectionally obtain from nature. Rather, we emphasize that the benefits emerging from interactions between humans and nature can have both a material and non-material manifestation. In this regard, we adopt this definition of CES: ‘relational processes and entities that people actively create and express through interactions with ecosystems’ (Fish et al., 2016, p. 211). Furthermore, in the theoretical framework, we highlight key themes in humanist geography related to spatial formation, such as placemaking, useful to our analysis. We then move on to our case study where we outline the specifics of wetlands and Lake Hornborga, and then identify the CES of the latter with the help of a novel relational framework suggested by Fish et al. (2016). Finally, we discuss the role of the CES in the local processes of place formation from the humanist geography perspective, specifically focusing on tourism. We end with implications for planning and future research.

**Theoretical framework: cultural ecosystem services and the formation of place**

**Cultural ecosystem services and the need for integrated approaches**

CES aspire to capture nature’s benefits, which are not immediately measurable through conventional economic tools but are, in any case, vital for human well-being
These include the ecosystems’ contribution to cognitive development, esthetic, and spiritual enrichment, health and well-being as well as local culture and identity. Theoretically, CES have been widely acknowledged but insufficiently operationalized in practice, due to their often immaterial, subjective, qualitative, and unmeasurable nature (Chan et al., 2012; Fish et al., 2016; Milcu et al., 2013; Plieninger et al., 2013). Although CES are routinely considered to affect human well-being less directly compared to the provisioning (e.g. food, fiber) and regulating services (e.g. flood control), their substitution potential is negligible (Plieninger et al., 2013). For instance, although failed provisional services in one location can be substituted by economic means (e.g. by importing food from somewhere else), the lost esthetic beauty of a landscape is irreplaceable.

Despite a long tradition of measuring the value of those CES, which could be readily expressed in monetary terms (Clawson & Knetsch, 1966; Krutilla, 1967), visibility of the subtler but still highly important CES associated with social cohesion, heritage, spiritual significance, and place identity has been low (Chan et al., 2012). More often than not, the level of incorporation of CES in the ecosystem services assessment reports has been insufficient to influence decision-making processes. Inattention to CES is partially explained by the limitations of disciplines traditionally examining ecosystem services (e.g. environmental economics) and their methodological approaches (e.g. monetary valuation techniques), which are unable to thoroughly engage with the socio-cultural domain. This perpetuates the ontological divide of nature-culture, material-immaterial, or human- non-human, which social critics often consider as the root of unsustainable economic models (Gómez-Baggethun et al., 2010; Harris & Roach, 2013; Venkatachalam, 2007). Bridging this gap is, therefore, a critical task of social sciences. As exemplified by Chan et al. (2012, p. 745).

Most [ecosystem services], cultural and otherwise, have nonmaterial or intangible dimensions. In some cases, these intangible dimensions (changes of a principally psychological nature) can matter more to people than do the affiliated material benefits (money and desirable physical changes such as sustenance or shelter).

Similarly, Fish et al. (2016) argue that imagining CES as something purely intangible and immaterial is counterproductive, obscuring the profoundness of human dependence on the biophysical world. In this regard, the insights from the human geographical study of landscape, space, and place, become particularly relevant, as we discuss in detail below.

**Cultural ecosystem services through the lens of humanist geography**

A promising way to bridge the persistent ontological and disciplinary divides is through deeper engagement with CES by utilizing theoretical insights from the humanist stream of human geography. The need and relevance of such approaches is demonstrated in the recently emerging academic and grey literature (Fish et al., 2016). We wish to advance this approach by building on Fish et al. (2016, p. 209), who argue:

[7] To advance a novel approach to cultural ecosystem services that is relational and nonlinear; starting from the perspective of peoples’ interactions with, and
understandings of places, localities, landscapes, and species. This approach situates ecosystem services in their cultural geography, allowing a highly interpretative category of human meaning and experience to be explored in the context of material processes and entities.

Just like proponents of CES, human geographers, influenced by the humanist tradition, attribute a value to place related to feelings of belonging, social cohesion, and identity (Cresswell, 2013, 2008). These geographers have long established that natural and physical spatial attributes have a special meaning for the inhabitants of a particular place. Especially, humanist geographers have distinguished place from space since the former evokes meaning to those living in relation to its material and social elements (Buttimer, 1993; Buttimer & Seamon, 1980; Relph, 1976; Tuan, 1977; 1974). Unlike space, which is often considered as an empty container of nodes and dots on a map, place implies a milieu of social involvement to which humans attach meaning (Cresswell, 2013, 2008). It is through lived experience that places come into being, as their inhabitants make sense of their surrounding world in different practical and social ways (Ingold, 2011; Riley, 1992). Tuan (1974) labels places ‘fields of care’ as their inhabitants become emotionally bound to them. It is through the repeated experiences of smelling, observing, hearing, and touching their surroundings that people develop a sense of a place, and consequently a sense of belonging. Ultimately, humanist approaches towards space stress the importance of considering the various relations people entertain with their surroundings in order to understand the formation of attractive living places.

Places may emerge organically from the values and memories their inhabitants imprint upon them through their mundane experiences (Lems, 2016; Riley, 1992). Lew (2017) calls this process ‘place-making’, differentiating it from the top-down ‘placemaking’, which relates to professionally planned and developed places. Outcomes of placemaking are what Tuan (1974) labels ‘public symbols’, meaning places purposely engineered to create a social identity locus. Through placemaking, developments such as urban redevelopment districts or museums are meant to become fields of care, though their appeal can change or be lost over time. As such, multiple stakeholders drive the creation of a place and its related meaning in a mixture of contrived and organic ways (Lew, 2017).

Certain places experience obvious top-down planning and development by reflecting minimal connection to their surroundings, as often witnessed in tourism enclaves (Wall-Reinius, Ioannides, & Zampoukos, 2017). Other places are planned more harmoniously with the sense of place of their local population and reflect localized cultural values more prominently in their material design (Buser, Bonura, Fannin, & Boyer, 2013; Cilliers & Timmermans, 2014). Importantly, placemaking can be valuable for creating places with high levels of quality of life for their residents (Cilliers & Timmermans, 2014). In such instances, the field of care forms through careful negotiations and planning, which is all aimed at keeping, and even reinforcing a place as an emotionally significant realm of belonging.

Lew (2017) views placemaking and place-making on a continuum where certain trade-offs happen between actors holding various interests, and in fact one is impossible without the other. Place-making needs to be incorporated into the
placemaking agenda to enhance its legitimacy amongst the local population (Lew, 2017). Humanist geographers also perceive this relationship in their elaboration of place. To Relph (1976), there are different types of intensities of spatial experience, where, on the one hand, place is experienced quite genuinely without the interference of cognitive distortions, while on the other, distinctiveness is eradicated through standardization, and thus experiential intensity is lost. Under this light, festivals, historic districts, recreational areas, public art, tourism advertisement are better for society when designed to diffuse localized values of cultural esthetics, belonging, social cohesion, and place identity.

A relational approach to spatial formation implies a consideration of the extra-local processes working to establish the discourses behind what is an attractive place (Hultman & Hull, 2012). Local stakeholders can use discourses like those of the rural idyll and environmental conservation to support the valuation and preservation of diverse cultural and environmental elements that are meaningful to them (Everett, 2012; Sims, 2009). This is obvious when local symbolic and material elements become tourist attractions. In all this, place attachment can be an empowering force when holistically and sensitively embraced for planning purposes (Cilliers & Timmermans, 2014; Cunningham, 2009). During this process, the boundaries between the natural and the cultural, the authentic and the contrived, the rural and the urban, and so on continuously shift as the everyday crosses path with processes such as destination marketing and spatial planning (Hultman & Hall, 2012). Thus, the persistent perception of CES as something primarily intangible vis-à-vis tangible ecosystem services (as defined by MEA, 2003) becomes irrelevant, since it is acknowledged that culture is also continuously manifested and negotiated through the materiality of natural phenomena. CES are thus significant spatial attributes to identify, inventorize and consider during negotiations related to processes of place making. Areas of high natural value also go through complex processes of place-making and placemaking that involve intervention from actors such as local residents, authorities, interest groups, and tourism stakeholders, as visible in the case of Lake Hornborga.

Case study area: specifics of wetlands and Lake Hornborga

Cultural ecosystem services of wetlands

According to the 1971 Ramsar Convention on Wetlands, ‘wetlands are areas of marsh, fen, peatland, or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish, or salt, including areas of marine water the depth of which at low tide does not exceed six meters’. They comprise just 6% of the Earth’s total land area and are some of the most productive and biodiversity-rich ecosystems. Nevertheless, they are the most threatened ecosystems on the planet, since more than half have disappeared over the last century (Lee, 2017; MEA 2005). The ongoing destruction of wetlands because of, inter alia, conversion to farmland, forestation, malaria control, depletion of ground water relates to the ignorance of their ecological and economic importance and the relatively low esthetic value ascribed to this type of landscapes (Silva, Phillips, Jones, Eldridge, & O’Hara, 2007).
CES of wetlands have drawn comparatively little research attention because historically they have been among the least understood and appreciated ecosystems (Lee, 2017; Turner, Stavros, & Fisher, 2008). In the European cultures wetlands have been surrounded with negative imagery. For example to Slavs they were places of danger and mystery, populated by evil spirits and demons, while Scandinavians used them to discard ‘unclean’ objects, such as those related to death rituals, as well as to offer sacrifices and bury criminals (DuBois, 1999; Tolstoy, 1995). In many languages ‘swamp’ is used pejoratively, synonymous with a wasteland (Maltby, 2009). Only in the 1950s did scientists introduce the term ‘wetlands’ to depart from this negative connotation (Keul, 2014). The prevailing negative cultural image of wetlands, coupled with modernization and industrial progress, led to the loss of approximately two-thirds of the European wetlands (Silva et al., 2007). Sweden has lost 67% of its wetland areas within the last half of the 20th century (Silva et al., 2007).

Despite various legislative frameworks to protect wetlands in Europe, such as the Ramsar Convention, the EU Habitats Directive and the Water Framework Directive, these ecosystems are still in decline (Scholte, Todorova, TEEFelen, & Verburg, 2016). From this perspective, CES of wetlands remain a highly under-researched topic. Our literature review suggests that, in the context of wetlands, ecosystem services researchers rarely explicitly acknowledge and engage with CES (e.g. Engle, 2011; Jenkins, Murray, Kramer, & Faulkner, 2010; Maltby & Acreman, 2011; Zedler & Kercher, 2005). For example, in their thorough analysis of ecosystem services of wetlands, Turner et al. (2008) recurrently associate recreational, esthetic, historical, cultural, and wilderness values to different wetland areas, but none of their case studies explores these values in any significant depth.

There is evidence that wetlands are becoming increasingly important as tourism destinations (Cheung, 2008; Keul, 2014; Zhang & Lei, 2012). Moreover, tourism frequently emerges as a means to transform wetlands into financially productive places without draining them (Keul, 2014). In other words, CES of wetlands deserve closer attention of tourism researchers.

The case of Lake Hornborga: projects of destruction and restoration

Given the complexity of wetland systems, we chose to delineate our study area to Lake Hornborga, which is part of a rural wetland area Sweden, locate between the two largest lakes Vättern and Vänern. It is also part of a 4000-hectare nature reserve. Three communities – Skövde, Falköping, and Skara – surround the lake. The lake itself, which at its deepest point is 1.5 meters deep, is about ten kilometers long and three kilometers wide.

Lake Hornborga is almost 10,000 years old, and archaeologists suggest humans have used it since around 7300 BC, for fishing and hunting the large herbivores that grazed on the wet meadows (Pehrsson, 1990). By 3800 BCE, the area was used for farming and cattle grazing. This activity continued until the 19th century, when, in line with industrialization, the wetland was transformed into arable land for grain farming. Just like most European wetlands, Hornborga was drained, five times in total.
The lake’s draining never yielded the anticipated economic benefits. Rather, it caused the oxidation of the organic bottom sediments, which subsequently sunk the grounds, making the area unsuitable for grain farming (Pehrsson, 1990). This situation led to the abandonment of farming attempts; by 1954 there was a limited rise in the water levels, and in 1965 the Swedish Environmental Protection Agency (EPA) proposed its restoration. The Swedish Parliament unanimously accepted the project in 1977, and in 1982, the Water Court and the national government gave permission to raise the water level by 1.5 meters (Björk, 2004; Pehrsson, 1990). By 1995, the lake was restored to its original size.

Bringing back the ornithological value of the lake was the main goal of the wetland restoration project (Björk, 2004; Maltby & Dugan, 1994). From the perspective of bird habitats, the lake’s two key ecosystems are marshes and the wet meadows. The various draining instances affected the marsh- and meadow-dependent birds differently. For example, around 1905, after the third draining, the wet meadows shrunk significantly, resulting in the disappearance of the Eurasian crane (Pehrsson, 1990). The restoration successfully attracted back multiple waterfowl species, including the cranes. The lake currently hosts around 50 waterfowl species, whereas the total number of bird species in the area is more than 270. Due to significant biodiversity, the lake is a site of international importance under both Natura 2000 and the Ramsar Convention. Overall, the restoration of Lake Hornborga is considered one of the most ambitious and well-documented wetland restoration projects outside the United States (Maltby & Dugan, 1994).

Current developments: from wasteland to crane-land

Today, thousands of cranes use the area as a resting and feeding stage on their annual migration from the south of Spain to the north of Sweden (Figures 1 and 2). Significantly, the crane population grew not only because of wetland restoration, but also due to artificial feeding. The Swedish EPA established a feeding station in 1980 to replace the food source from the agricultural activities around the lake, which had disappeared in 1972. The leftovers from the potato fields, previously serving as an important food base for the cranes, were replaced with grain. This practice, however, remains one of the key controversies in crane conservation (Meine & Archibald, 1996). On the one hand, artificial feeding directly increases crane survival rates and prevents human-crane conflicts through diverting the birds from agricultural fields (Prange, 2005). On the other hand, artificial feeding results in concentration of cranes in unprecedented numbers, which increases the risk of disasters related to, for instance, weather, diseases, hunting, or poisoning (Meine & Archibald, 1996). Nevertheless, this practice can be found in many sites of crane protection in Europe (Prange, 2005).

The artificial feeding increased the flock size at Hornborga from 750 cranes per day in 1979 to 5000 in 1995 (Davis, 1998). As of today, a flock of as many as 26,000 cranes can be observed around the lake during certain times of the year (Väst, 2017). During their rest time on their migration route, these birds strengthen their social bonds through a courtship ritual, known as the crane dance. This complex display of
**Figure 1.** Feeding cranes and birdwatching hides in the distance. Source: Authors.

**Figure 2.** Tourists observing the cranes from a designated vantage point. Source: Authors.
jumping, bowing, wing flapping, pirouetting, and trumpeting is spectacular, attracting sightseers from near and far.

**Data collection and analysis**

For this study, we chose a phenomenological approach and a qualitative design, essential elements to methodologies aimed at capturing the symbolic meanings, social interplays and human experiences at the heart of the formation of a place. Specifically, we conducted: (a) a focus group interview, and (b) 16 semi-structured interviews. Both the focus group and interviews were carried out with respect to the standard principles of anonymity, confidentiality and informed consent. All the data were recorded and transcribed verbatim. In addition, informal on-site observations and conversations provided deeper insights into the research context. We also took notes during and after interviews and site visits, capturing any information that could be relevant to the analysis. All these procedures were meant to increase the validity of the study during the analytical process (Creswell, 2013). The data were analyzed using a three-stage coding technique, as recommended by Saldaña (2015), where we used both inductive and deductive codes (based on the terminology by Fish et al., 2016) to inform our phenomenological analysis.

**Focus group**

The value of focus group interviews emerges from their interactive and loose format, enabling respondents to bring up issues and questions they feel are significant to their reality (Bryman, 2016; Wibeck, 2013). As participants discuss and argue with little interference from the moderator, they conjointly form their opinions around certain matters, which the researcher then pinpoints as important social themes.

The focus group interview was conducted in February 2017 to inquire about particular themes amongst varied local actors in order to design accurate and worthwhile interview questions for later use in the methodological process. The stakeholders selected for the focus group included individuals from both the public and private sector, all connected in some way to the lake through their commercial, recreational and/or managerial activities (see Table 1). Key informants at the regional authorities helped the research team identify and contact these actors to participate in the study, while also engaging in the focus group interview themselves.

**Table 1. Participants of the focus-group interview.**

<table>
<thead>
<tr>
<th>Name*</th>
<th>Occupation</th>
<th>Location of operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sven</td>
<td>Dairy farmer with tour operating business</td>
<td>Falköping</td>
</tr>
<tr>
<td>Markus</td>
<td>Owner of bed and breakfast</td>
<td>Falköping</td>
</tr>
<tr>
<td>Stefan</td>
<td>Café/restaurant owner, also offering accommodation</td>
<td>Falköping</td>
</tr>
<tr>
<td>Britta</td>
<td>Café/restaurant owner, also offering accommodation</td>
<td>Falköping</td>
</tr>
<tr>
<td>Allan</td>
<td>Member of a birdwatching club and volunteer for bird-counts</td>
<td>Falköping</td>
</tr>
<tr>
<td>Ivar</td>
<td>Representative of community development association</td>
<td>Falköping</td>
</tr>
<tr>
<td>Rikard</td>
<td>Representative of community development association</td>
<td>Falköping</td>
</tr>
<tr>
<td>Helena</td>
<td>Responsible for destination development projects</td>
<td>Falköping</td>
</tr>
<tr>
<td>Therese</td>
<td>Tourism development manager</td>
<td>Falköping</td>
</tr>
<tr>
<td>Lars</td>
<td>Owner of a fishing lodge with restaurant. Offers guided tours</td>
<td>Skara</td>
</tr>
<tr>
<td>Gunnar</td>
<td>Member of a birdwatching club. Offers guided tours.</td>
<td>Skövde</td>
</tr>
</tbody>
</table>

*All names are pseudonyms.
The research team utilized three themes to kick-off the discussion with the focus group. These themes were established following the in-depth reading of documents and reports about Lake Hornborga. They related to local perspectives on the lake: (a) as an economic resource; (b) as a social resource; and (c) as place symbol. Three researchers led the focus group interview, two of whom acted as moderators while one took notes during the discussions. The moderator led the group discussion in Swedish, the participants’ native language.

**Interviews**

Semi-structured interviews imply the consistent implementation of predetermined questions during interviewing (Bryman, 2016; Lune & Berg, 2017). The analysis of the focus group interview led to semi-structured interview questions, enabling us to probe deeper into the themes emerging as relevant to the context at stake. Evidently, questions of cultural value and place-identity mattered more to the participants than those relating to economic benefits. This signaled a need to form questions around these themes to understand adequately the local values of the Lake Hornborga ecosystem. Examples of the subsequent questions include: How do you perceive Hornborga as a local resident? How do you perceive Hornborga as a business-owner? What are, to you, important characteristics about Hornborga? How do you use Hornborga during your spare time? How do you feel about tourism development in the area?

We chose interview participants according to their relationship to Lake Hornborga. Our aim was to cover the most typical, but also diverse relationships with the lake (two of the interviewees were recruited from the focus group meeting). In total, we conducted 16 interviews in March and April of 2017 (see Table 2). Each interview, conducted in Swedish, lasted approximately 40 minutes.

Study visits to Lake Hornborga took place on two different occasions (three days in February and three days in March of 2017). These enabled us to acquaint ourselves to

<table>
<thead>
<tr>
<th>Name</th>
<th>Occupation</th>
<th>Location of operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andreas</td>
<td>Manager of cheese boutique and restaurant.</td>
<td>Falköping</td>
</tr>
<tr>
<td>Jonas</td>
<td>Chairperson in folklore society.</td>
<td>Falköping</td>
</tr>
<tr>
<td>Gertrude</td>
<td>Dairy farmer with local tour operating business.</td>
<td>Falköping</td>
</tr>
<tr>
<td>Therese</td>
<td>Tourism development manager in Falköping.</td>
<td>Falköping</td>
</tr>
<tr>
<td>Tomas</td>
<td>Member of folklore society and treasurer in various local associations.</td>
<td>Falköping</td>
</tr>
<tr>
<td>Erika</td>
<td>Director of visitor center at Hornborga.</td>
<td>Falköping</td>
</tr>
<tr>
<td>Niklas</td>
<td>Former director of visitor center at Hornborga.</td>
<td>Falköping</td>
</tr>
<tr>
<td>Emil</td>
<td>Owner and manager of small youth hostel close to Hornborga.</td>
<td>Falköping</td>
</tr>
<tr>
<td>Daniel</td>
<td>Owner and manager of restaurant and conference center operating own meet production. Animal park with deer, moose and wisent on the premise.</td>
<td>Falköping</td>
</tr>
<tr>
<td>Gillis</td>
<td>Owner of small café/restaurant and bed and breakfast operations.</td>
<td>Falköping</td>
</tr>
<tr>
<td>Philip</td>
<td>Operating accommodation business on old family farm.</td>
<td>Falköping</td>
</tr>
<tr>
<td>Sandra</td>
<td>Natural science teacher involved in activities such as guiding and lecturing in connection with Hornborga.</td>
<td>Falköping</td>
</tr>
<tr>
<td>Lars</td>
<td>Owner of a fishing lodge with café/restaurant. Offers diverse tour guided activities.</td>
<td>Skara</td>
</tr>
<tr>
<td>Karen</td>
<td>Manager of Hornborga field station and university professor.</td>
<td>Skara</td>
</tr>
<tr>
<td>Hilda</td>
<td>Sheep farmer with small tourism operations. Retired from job as veterinarian.</td>
<td>Skara</td>
</tr>
<tr>
<td>Karl</td>
<td>Representative of regional authorities responsible for nature management.</td>
<td>Skövde</td>
</tr>
</tbody>
</table>

*All names are pseudonyms.*
the special character of the place and carry out informal conversations. One of these participatory occasions coincided with the crane dance event in March. The researchers repeatedly visited various observation areas, the nature interpretation center and other public spaces around the lake. All members of the research team documented their observations and conversations as field notes, later used to strengthen the insights gained from the interviews.

Results

Our analysis of CES is ontologically based on the reciprocity of culture-nature relationships, or, in other words, the relational approach towards human and non-human worlds. Based on this understanding, interconnected analytical distinctions are made to approach and conceptualize the CES, based on the framework suggested by Fish et al. (2016, p. 211). Thus, our basic analytical concepts are (i) environmental space (the geographical context where people interact with each other and nature) and (ii) cultural practices (the expressive, symbolic, and interpretative interactions with the place). Further, the interrelations between environmental space and human practices result in the emergence of (iii) cultural benefits (factors contributing to human well-being) and (iv) cultural goods (marketable products and services), in their turn, affecting the space and cultural practices within it. All of these are contributing factors in the place formation process.

The interrelations of the environmental space and cultural practices on Lake Hornborga

The Lake Hornborga wetland both enables and is shaped by local cultural practices, which we have grouped into the following categories (based on the terminology suggested by Fish et al., 2016).

Playing and exercising

Within this category, attention is paid to the leisure activities, involving social interactions, physical engagement between people and the place. Our empirical materials demonstrate that the lake and its surroundings are an important place of outdoor recreation for locals. Sweden’s strong tradition of outdoor recreation permeates the routine of everyday life. The local understanding of outdoor recreation (friluftsliv in Swedish), is characterized by simplicity, focusing on being outside in nature, with the intention of general well-being and nature experience, without the need for competition (Fredman, Stenseke, & Sandell, 2014; Sandell & Sörlin, 2000). Frilufsliv is more than simply outdoor recreation, but rather a whole philosophy of being in nature and connecting with it (Gelter, 2000; Sandell & Sörlin, 2000). For instance, Hilda emphasized her interest in the birdlife: ‘I think it is great that it [the lake] is there. It attracts so many birds, different species and kinds. It makes the whole countryside more interesting’. To Hilda, her interest in birds is reflected in many strolls and picnics around the lake, where she often takes guests and family-members to enjoy the surroundings. Jonas revealed his habit to go every year to look at the cranes and the eagles when these birds sojourn at the lake.
He and his wife take their children and grandchildren with them. Besides walking and picnicking, the interviewees named hiking, walking with dogs, fishing, hunting geese and boar, admiring the view and just enjoying being outside on the lake as important recreational activities. The locals also engage in active recreational activities during the winter, off-tourist season, primarily ice-skating. Many felt that the lake is a good place to socialize, a site to show to visiting family members and friends. They repeatedly stated that the lake is a place to show and to strengthen social bonds, which is always interesting to visit. It is a positive interaction they look forward to every year.

Creating and expressing

Here, the focus is on the leisure activities involving creation of symbolic artefacts such as arts and crafts, theater, or storytelling. Our data reveals that the lake and the cranes have an extremely strong symbolic value for the surrounding communities. First, the lake serves as an important source of artistic inspiration reflected in the production of paintings, ceramics, and nature-themed artefacts, created by the local artists. In fact, the presence of the lake and the related tourism activities highly influence the demographic composition of the communities, attracting the creative class and young families. In the focus group, the esthetic qualities of the lakes were directly presented as attractive to these types of individuals.

For a fairly long time, the lake, the mirroring water and the hilly landscape, the ancient culture and history, and so forth, have attracted quite a lot of people like … Yes, creative people who are both artistic and who are nature-interested. I think it has been a magnet for a long time.

Second, during the crane dance season the area is full of activities revolving around this event. These involve organizing and participating in fairs and festivals, engaging in tourism-related activities both for work and during leisure time, observing and counting the cranes, providing information about the cranes to tourists. Clearly, the annual arrival of the cranes has an important symbolic and ritualistic meaning for the local communities, who adapt their lifestyle, businesses, routines, and leisure around this event.

Producing and caring

This category deals with both work and non-work activities, reflecting direct engagement with and management of a place. The area surrounding the lake hosts a multitude of entrepreneurs who are directly dependent on the lake and the space it creates. These individuals are not only tourism entrepreneurs, restaurant and café owners, but also artists and artisans. Additionally, the area has an active farming sector, including large and small-scale farms, engaged in production of dairy, meat, fruit, and other agricultural goods. Philip, a farmer and tourism business owner, reminisces about the transformations he witnessed: ‘When we moved here in 1974 it was a swamp area. All our neighbors told us that there would never be anything here … nothing with the Lake Hornborga. But they had it wrong. Since then we have been running all the way with all those steps taken by the state’. The local entrepreneurs
demonstrate strong awareness of the history of the lake, the local flora and fauna, current water management and the overall impact of the lake on their businesses.

**Gathering and consuming**

This bundle of practices involves gathering and consuming local products, both tangible and intangible. Sweden offers a uniquely favorable condition for interacting with nature, namely the Right of Public Access (*Allemansrätt*). Formulated in the 1970s and included in the Constitution in 1994, the Right states that recreationists have unlimited access to nature without restrictions or entrance fees (on the condition of non-disturbance and non-destruction). It is, therefore, unsurprising that the locals actively participate in both non-consumptive, but also consumptive types of outdoor recreation, especially hunting and fishing, which also attracts tourists. Lars, for example, states: ‘Fishing is popular … A lot of people come here … We also sell fishing packages. When you stay in our cabins you rent a boat, and you also get a permit’. Centered on gazing at the cranes and their dance display, the tourists inevitably engage in the processes of consumption, which involves purchasing local products and services. As a result, the place transforms into a tourist destination.

**Cultural benefits and goods from Lake Hornborga**

The interaction of place and cultural practices both enable and are shaped by cultural benefits, or the cultural dimension of human well-being. As stated by Fish et al. (2016, p. 212), ‘environmental spaces and cultural practices should be considered mutually reinforcing cultural ecosystem services through which cultural benefits to well-being arise’. We note the following benefits at Lake Hornborga.

**Identities**

Here, the focus is on the role of the ecosystems in the feeling of identity, belonging, rootedness and social cohesion, indispensable for the sense of place (Cresswell, 2013, 2008). Locals have a strong sense of pride and local identity in connection to the lake. This connection is visible in this quote from one member of the focus group: ‘There are many people who feel pride and choose to live in the village because it is close to Lake Hornborga. Had not Lake Hornborga existed and been restored, it would not have been so attractive to move here’. Among the elements reinforcing these feelings of identification and meaning, the cranes have become a powerful spatial symbol, expressed and sensed on multiple levels. Participating in the crane dance event is a reason to go out and see what is happening, it is a topic of conversations, a shared experience, an important point of reference. The cranes’ arrival is a nationally-known event symbolizing the advent of spring. Many of the aforementioned recreational activities taking place around the lake become even more special when happening in relation to the arrival of the cranes.

The meaning of the event is amplified by extensive media coverage, resulting in high recognition and prestige of the place. The residents are convinced that this has positively affected the real estate prices, prestige, and general attractiveness of the
area. They take pleasure in knowing their lived space is a center of national and international attention and the reason for tourists to visit from afar. From the business perspective, the interviewees acknowledge the lake’s ‘brand’ status and believe the cranes perform free ‘marketing’ for the place on the national and international levels.

Experiences

Experiential cultural benefits encompass physical, spiritual, mental pleasure, and enrichment. The importance of the esthetic features of the place was a recurrent theme among all the interviewees. As mentioned above, the Swedish tradition of friluftsliv emphasizes the experience of connectedness with the landscape, with the aim of achieving physical renewal and spiritual wholeness. The landscape with the lake was recurrently described as fantastic, unique, unbelievably beautiful, and magical. This is an area with rich and unique biodiversity, including avifauna (white-tailed eagles, geese, swans, and other waterfowl species), wild flowers, bats, and other wildlife, which provide a rewarding nature experience to the residents and recreationists. Tomas directly linked the latest restoration of the lake to its current esthetic appeal, which he enjoys dearly.

In the 50s there was less and less visible water surface. My parents thought that was horrible and unpleasant to see the lake overgrown. Then there was the restoration, and one could see the mirroring water surface. I think it got much more pleasant to see a lake with a mirroring surface rather than just reed.

This enjoyment is difficult to articulate for those who live it. Sven outlined how this appeal is hard to quantify for people used to talking in economic terms of natural resources: ‘I don’t know what it is … Lake Hornborga has its own soul. It is a special place with special light. That’s the way it is. It is difficult to explain in numbers’.

Capabilities

By capabilities, Fish et al. (2016) understand the role of nature in equipping people with knowledge and skills enabling them to achieve their goals and flourish. Lake Hornborga is an important source of scientific knowledge, especially of ornithology and limnology. The area serves as an important site of environmental education when complemented with interpretative resources such as guided tours, exhibitions in the nature interpretation center and the organization of events and workshops. During the focus group interview, the educational capabilities the lake could provide were put in the context of the growing urban and rural divide, disconnecting people from the natural environment. The respondents were particularly concerned for children: ‘Natural experiences are so vital. In the past, nine out of ten children gathered plants in the summer; they knew the names of the different flowers. They could name the birds and so on. We actually have a biological illiteracy nowadays’.

The lake is also a site for tourists to learn about nature. The interviewed tourist entrepreneurs state that they frequently receive tourists from metropolitan areas, who lack knowledge and skills of engaging with nature. The guides, therefore, serve as environmental educators using the lake as a learning platform.
Overall, the importance of outdoor recreation as a positive contributor to physical and mental health cannot be overestimated as it is supported by both research and traditional values within Swedish society (Fredman et al., 2014; Sandell & Sörlin, 2000). During the focus group interview, mental health was directly linked to access to a natural area that offers a connection with things that are genuine: ‘People get sick because they are broken inside. They go through difficult times. There is a lot of shit out there and people cannot experience anything real anymore, but Lake Hornborga is for real. There is diversity for real’. As mentioned above, linking high-quality nature areas and general well-being are deeply entrenched in Swedish culture.

**Cultural goods**

Finally, some of the aforementioned practices and benefits inevitably become part of market-based relationships. As Fish et al. (2016) suggest, CES cannot be reduced only to the market domain but neither should they be completely excluded from nor counter-posed to it. Since its restoration, many stakeholders have worked to develop Lake Hornborga as a tourist destination, with the cranes as its main attraction. Nowadays the area has a relatively well-developed infrastructure for bird-watching tourism, which includes two visitor centers (one of which is specifically dedicated to the interpretation of cranes), eight visitor areas, eight bird-watching towers, five hiking trails, and three bird-watching hides. The regional administration supports the infrastructure. The regional tourist board intentionally promotes the crane dance season as an international tourist event. Their activities include, for instance, organization of a local food fair, various crane-themed activities, and the distribution of information about cranes. The County Administrative Board also promotes tourism development in the area with the specific goals of supporting local entrepreneurs, contributing to regional development and ensuring local support for the nature reserve. The area currently attracts about 250,000 tourists annually, of which at least two-thirds arrive during the four weeks of spring (March–April) to observe the cranes. According to expert estimations, during the crane dance season of 2016, visitors spent around 44 million Swedish kronor on tourist services (Röslmaier, Wahlqvist, & Ioannides, 2017).

The benefits arising from the lake’s ability to attract tourists are, unsurprisingly, among the most frequently mentioned and immediately observable CES. Jonas states, for example that ‘the lake is a huge magnet’. Gillis, a bed and breakfast owner says: ‘Our season begins with the cranes, we see this very clearly. When the crane season approaches, our guests start arriving’. Even though tourism-related CES are actively monetized (and from this perspective tourism can also be reclassified as a provisional service, tourism is related to many other non-monetary benefits the local communities receive from the lake, such as local identity, pride, and prestige of the place. In the case of Lake Hornborga, the cultural ‘goods’, such as nature experiences turned into packaged tours, food festivals, retail of crane-related arts and crafts, accommodation, and dining services succeed on the market largely due to tourism, which becomes a powerful centripetal force integrating multiple natural phenomena into the commercial domain.
Discussion

Wetlands are among the planet’s most neglected and degraded ecosystems (Lee, 2017; Turner et al., 2008). This relates to the misconceptions that have historically guided human practices around these ecosystems and the difficulty of turning them into economically productive spaces. Through the humanist tradition in human geography, we have brought into the limelight a wetland’s multiple CES through our analysis of the place formation of Sweden’s Lake Hornborga. Using the analytical framework suggested by Fish et al. (2016) as a point of departure, we identified and discussed CES as emerging through the continuous interaction of people with their environment. These interrelations were manifested through a plethora of quotidian and extraordinary cultural practices, such as playing and exercising, creating and expressing, producing and caring as well as gathering and consuming, that work to give place its social meaning. Through the focus group and interviews we demonstrated how interrelations of the environmental space and cultural practices give rise to place-related CES – a strong local identity, high quality outdoor experiences, enhanced educational capabilities, as well as opportunities to commodify and monetize natural phenomena. All these result in the formation of a unique place, which is Lake Hornborga.

Lake Hornborga has been drastically altered through state-led interventions throughout the 20th century. While the pendulum of public opinions and state policies towards the wetlands might have swung in a positive direction, putting an end towards utilitarian projects of draining, Lake Hornborga did not become a monofunctional space, solely targeting conservation. In fact, exemption of the area from intensive agriculture has opened space for a multitude of interests to flourish in parallel, such as tourism, small-scale farming and gardening, recreation, science, education, arts and crafts, and various commercial practices. We see that Tuan’s (1974) field of care has grown organically from increased human interactions with an ecosystem, rather than through a state-driven creation of a public symbol. The emotional bonds these residents and tourists have lately developed with the elements of the wetland ecosystem and its landscape are behind the emergence of CES. The historical transformations in the policy and management practices in and around the lake – from an unproductive wasteland to a valuable birdlife oasis and a tourist destination – illustrate the changing perceptions of wetlands overall. All the aforementioned reflects the interrelated processes behind place making and place-making that involve various actors, humans and non-humans alike, in the formation of a dynamic and meaningful place-identity.

Lake Hornborga’s role in the local place identity arguably exemplifies its most profound and central CES, at the heart of all place-based benefits. The local identity is greatly enhanced through the high quality natural experiences and educational capabilities, based on the centrality of nature, outdoor recreation, and outdoor learning in the Swedish culture. Having access to high quality nature areas with opportunities for exciting physical and social activities, as well as positive esthetic and spiritual experiences, is considered to be an indispensable part of leading a ‘good life’ in Sweden, and thus has a strong symbolic value (Fredman et al., 2014; Gelter, 2000; Sandell & Sörlin, 2000). In this context, the presence of cranes adds a unique
component to the available spectrum of outdoor recreation experiences, raising the attractiveness of the place.

The role of cranes is especially important in generating publicity, awareness and tourist attractiveness of the place, elements which, in their turn, contribute to a strong place identity. The cranes ‘put the place on the map’ and their arrival signals the advent of a new season in the whole region. According to Higginbottom and Buckley (2001), natural areas with the highest wildlife watching potential have to have an abundance of large animals, iconic species, and/or high biodiversity. The tourism success of Lake Hornborga is, therefore, unsurprising: here, one can observe a major congregation of a large bird species (reaching 130 cm in height and 240 cm in wingspan), as well as other avifauna. Undoubtedly, cranes are iconic species, and cultures around the world have developed strong symbolic relationships with them, inspired by their elegant shape, graceful movements and social behavior (Meine & Archibald, 1996).

Cranes become a local place-making symbol and a tourist attraction, generating the local sense of place and making Lake Hornborga famous nationally and internationally. This has far-reaching consequences, from reinforcing intangible feelings of pride, belonging, rootedness and content among the local residents to more tangible attractiveness of the place for in-migration of diverse social groups, increasing real estate prices and growing business opportunities. In addition, crane tourism has emerged as the main avenue of constructing the lake and the surrounding areas as places of consumption. As stated by Keul (2014:236), '[t]he product consumed through wetland tourism is the experience of esthetic beauty, complex ecosystems and exotic species – a culture of romanticized natures and environmentalism'. This is especially important for the conservation of wetland ecosystems, historically perceived as unproductive and, therefore, low-value places (Keul, 2014; Lee 2017; Silva et al., 2007).

By considering the sense people attribute to place through their interaction with its natural elements, CES emerge as key drivers behind place making, rather than mere labels for inventoring benefits people receive from nature. In our case, this led to uncovering how symbolic and material elements merge to shape Lake Hornborga into a unique place, as they influence and reflect localized cultural values.

**Conclusion and further research**

Nowadays, Lake Hornborga’s esthetic attraction and biological significance are maintained through both top-down and bottom-up processes. As Lew (2017) argued, places are formed through complex processes that intermix multilevel governmental intervention and various grassroots activities. The optimal water level in the lake, the concentration of large quantities of cranes through artificial feeding and the surrounding recreation infrastructure subsist with the help of the state and regional authorities. The legitimacy of these types of managerial practices highlights broader questions related to the evolution of stakeholder negotiations over what a place should entail (Douglas, 2014; Gordon & Goodall, 2000; Hultman & Hall, 2012). The conservation of Lake Hornborga is currently planned in relative harmony with the meaning it historically acquired as it became culturally relevant to its surrounding residents. What this case study demonstrates is that giving importance to the sense of place is an
empowering force when holistically and sensitively embraced for planning purposes (see also Cilliers & Timmermans, 2014; Cunningham, 2009). As Relph (1976) argues, it is this type of planning that is the most conducive to strengthening feelings of belonging and social cohesion. In terms of wetlands, this research indicates the importance of CES of these ecosystems and thus outlines the possibility to foster their planning in ways that are conducive to their preservation.

Lastly, the centrality of cranes to the place formation of Lake Hornborga calls attention to further research into human-animal relationships, a current and exciting field of study out of the scope of this article. Animal geographers have highlighted many of the assemblages and non-human agentic properties behind human-animal relations (e.g. Gillespie & Collard, 2015; Lorimer, 2010; Philo & Wilbert, 2004; Urbanik, 2012; Whatmore, 2006). A humanist approach to CES has the potential to contribute to such scholarship as it can outline the ways human societies experience animals as they actively shape their material and imaginary spaces. Furthermore, interrogating the complex entanglements of human-animal relations and their joint production of place, landscape and environment would contribute to better recognition of animal-related CES. These conceptualizations pave the way for a more ethical social science where human responsibilities towards the non-humans elements of the world are weaved into spatial theory and planning. This is especially important in light of the ongoing global biodiversity decline and destruction of such underappreciated ecosystems as wetlands. We thus advocate more research into the different cultural meanings humans attach to ecosystems as they make themselves at home in the world.

**Disclosure statement**

No potential conflict of interest was reported by the authors.

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**References**


