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Public Spheres for Deliberation on Nature? Democratic Qualities of Visitor Centres in Sweden

Abstract

In this paper we explore in which ways and to what extent Swedish visitor centres in protected sites work as forums for public deliberation on environmental issues, such as nature conservation and natural resource management. By hosting deliberations *on* nature *in* nature the deliberation process is connected to its materiality. Nature interpretation sessions at three such centres, called *naturum*, were analysed to achieve a picture that displays the range of content and formats of these guided tours. To explore their deliberative democratic potential, we also examine how these nature interpretation sessions relate to societal and democratic issues in different ways. The conclusions are that naturum has an underdeveloped capacity to serve as a communicative forum for public deliberation on the environment and that the new national guidelines for naturum may contribute to renewed roles of the guide and the visitor in interpretive sessions, in which the citizen will be in focus.

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Keywords

Deliberation, democracy, public sphere, nature, environment, interpretation, Sweden

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Introduction

Interrelated environmental crises of today call for new governance schemes and forms of public engagement (Habermas, 1998). Formalized representative democratic systems require complementary citizen-deliberative engagement, in the form of a thriving public sphere of discussion, to address environmental issues (Niemeyer, 2014; Dryzek, 2009). The deliberative component may be regarded as the most fundamental requirement for democracy (Silberman, 2013), since representative democracy needs public deliberation both for political problem formulation and for political representatives to have a connection to their constituents. Consensus on the format, content and proceedings of these deliberative spaces has yet to be established, as a third generation of deliberative democrats experiment with deliberative arenas and mini-publics (Böker & Elstub, 2015; Grönlund, Bächtiger, & Setälä, 2014). This paper considers deliberation that is taking place in person since the intersubjective processes that structure deliberation in such settings can make a substantial impact on the quality of the communication. Public deliberation on the environment requires a physical and public space with a common context and the development of a cultural practice. Such locale based (place based) and the forum based (communicative context) conditions for deliberation (cf. Wiederhold, 2013) will be discussed further in the paper.

One space in which citizens come together to learn about nature as a public issue is the visitor centres in national parks and nature reserves, where 'nature interpretation' (NI) is a key feature. The latter is a Swedish term used for forms of heritage interpretation and environmental education, denoting those communicative activities that attempt to connect people to a nature site. Given their physical and communicative characteristics, NI arguably holds the potential to furnish a deliberative perspective on environmental challenges. In effect, NI sites offer a public arena within a concrete common context.

In this paper, proceedings of NI—specifically communicative practices at so called *naturum* sites in Swedish national parks and nature reserves—are analyzed in regards to their deliberative qualities as arenas for public deliberation on the environment. This generates an understanding of what NI is in this specific setting, and contributes to a general discussion on how deliberative qualities in the field of NI can be assessed.

In total there are 33 naturums situated throughout Sweden (SEPA, 2018). They follow guidelines from the Swedish Environmental Protection Agency (SEPA, 2009) and are usually operated by the County Administrative Boards. The SEPA revised their guidelines during the completion of this study. Hence, our empirical data is from before the new guidelines were implemented (SEPA, 2015). Naturum is on one level the instrument of the government for providing information about nature conservation. On another level, naturum serves as a

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space for public exhibitions and centres for visitors, denoting a more emancipated deliberative fora.

Indeed, naturum has an educational function but also fulfils a democratic role. In recent SEPA guidelines (2015) this is made explicit in the explanation that the term 'naturum' is supposed to convey associations of nature, museum and forum, corresponding to conservation, education and dialogue. As a forum, naturum has democratic underpinnings in the meaning of the term: it can be interpreted as a physical place [Swe: "rum" = a square/place/room] for citizens to meet to experience nature [Swe: "natur"]. NI practice builds on first-hand experience with nature according to the tradition from Freeman Tilden (1957). The importance of direct experience with nature can also be related to the museology discussion on authenticity (Dueholm & Smed, 2014; Olsen, 2002) as well as the role of nature in terms of shared living conditions, which have a direct democratic function in environmental planning referred to as "the common third" (Vasstrøm, 2014).

NI takes place both indoors and outdoors. Some of the locale based conditions connected to outdoor NI is that it provides direct experience with nature which promotes an aesthetical and emotional relation with nature (Sandell & Öhman, 2010). Ecological, or environmental, education involves improved ecological literacy, and ability to "read the landscape" (Sandell & Öhman, 2010) or to "read nature", something which has to be trained outdoors and is connected to authenticity (Magntorn, 2007; Magntorn & Helldén, 2007). Direct contact with nature has been investigated in research on environmental education and environmental psychology, and has been found to improve attention regulation, cognitive functioning, and increased self-discipline (e.g., Oppezzo & Schwartz, 2014). Outdoor learning contributes with more holistic topics, learners have the power to negotiate what is learned and to take more responsibility for their learning, and learning is rooted in the landscape where it takes place (Beames & Ross, 2010). Direct contact with nature activates more dimensions of knowledge, compared to indirect contact (Duerden & Witt, 2010). Learning outdoors in the field also displays to the participants that the meanings of a place are different to everyone (Cheng, Kruger, & Daniels, 2003), something which has direct implications to the ability of NI to contribute to democratic deliberations.

Communication that takes place face-to-face, like the NI analyzed in this paper, activates intersubjective processes of empathy, discourse ethics and norm formation, and communicative rationality (cf. Habermas, 1996), to a larger extent than mediated communication. Communicative rationality contributes to communication beyond the strategic use, and is constitutive to society (Moser, 2015; Cox, 2010; Craig, 1999). Furthermore, direct communication holds a certain critical potential of interest for deliberative democracy—as an important complement to broadcast mediated communication which is the dominant

communicative channel today and which is dominated by a few, commercial "information gatekeepers" (Wiederhold, 2013, p. 2). The growing need to recreate meaningful roles for citizens in the democratic system also calls for communicative forums that are based on physical presence. The embodied presence (see Wiederhold, 2013) may be interpreted as a mode of advocacy, which comes from the act of "literally coexisting with another [person] in a particular space and time" (Pezzullo, 2007, p. 9).

The Swedish authorities working with nature conservation and environmental protection have increasingly supported NI at naturum. This particular kind of NI is becoming institutionalized and established as a trademark. In addition, environmental authorities currently invest resources in general pedagogic activities for the public connected to protected nature. To eschew the risk of naturum ending up a quasi-governmental space for one-way education, rather than a deliberative forum, research now needs to urgently critique and evaluate the deliberative merits of naturum.

The call for such critical and future-oriented research in the NI context is grounded in policy, public debate and theoretical drivers. First, on a policy level, NI at naturum is currently financed by the SEPA, which is committed to realizing the government's nature conservation policy from 2001, containing NI as well as democratic aspects of nature conservation (Swedish Government, 2001). Second, on a level of public debate, naturum is intermittently discussed in Swedish media, where the functions and values of naturum are called into question in relation to the expenses for having them (cf. Dagens Nyheter, 2009). Third, on a theoretical level, systemic deliberative democrats search for unexpected arenas of the deliberative system in which citizen deliberation can take place, and naturum may be one such forum. Our study connects to all three calls for research.

Specifically, we study guided tours of different formats at three naturums in Sweden and through deconstructing this material, we present our understanding of (1) what NI is at these sites, and (2) how NI may be analyzed in terms of deliberative democratic qualities. This paper provides a response to the question: What are the qualities of guided sessions at Swedish naturums regarding their potential function as deliberative forums within the public sphere in regards the environment?

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Theoretical Framework

Deliberative democracy and public spheres

This paper regards the importance of informal deliberation behind the formation of ideas and opinions, in contrast to instrumental deliberation (Kim & Kim, 2008), where formal decision making on societal issues requires that ideas and opinions are already set and translate into policy via processes of voting. Informal deliberations happen every day and in diverse settings, and are constitutive of a functioning deliberative system (cf. Dryzek, 2009). By using a framework of deliberative systems (Mansbridge et al., 2012), and thereby extending what we regard as actors, spaces and impacts from public deliberations beyond the Habermasian ideal, we can acknowledge the political agency of overlooked actors, such as children (Nishiyama, 2017). Similarly, the extension of arenas to include naturum, acknowledges a broader range of spaces that impact the deliberative system, albeit in a more informal and everyday sense. More arguments for including everyday talk in the deliberative system are discussed by Zhang and Chang (2014) and Marques and Maia (2010). Research shows that deliberation involving common citizens, to a smaller extent, fulfils the theoretical qualifications of ideal democratic deliberation, compared to processes involving elected representatives (Himmelroos, 2017). Conover and Searing (2005) contend that

Unlike political elites [...] citizens have few opportunities to deliberate rigorously in formal institutional settings. Most of their political discussions are therefore quite unstructured. And yet these exchanges both constrain and contribute to the evolution of political ideas and policy proposals. They are also said to provide a civic education that teaches desirable democratic attitudes and practices. (p. 269)

This interpretation puts informal deliberative spaces, of which naturum may be considered an example, close to what Fraser (2003) calls 'weak publics'. These are in contrast with formal publics at the centre of policy-making. Public spheres or 'weak publics' [a; see Table 1 for this and forthcoming letters in brackets] are important spaces and practices to develop, since they are the scaffolding for deliberation (Conover & Searing, 2005).

While representative democracy is connected to the state and its organization, deliberative democracy is characterized by its relative independence from the state [b]. Thereby 'weak publics' may be 'weak' in terms of disempowerment from actual decision-making bodies, but they are simultaneously empowered qua their emancipation from this system. Indeed, they have freedom to criticize the state as well as the market system. According to Habermas they belong to

the shared domains of the lifeworld (Habermas, 1984). Fraser, by contrast, argues that state institutions and the publics should not be separated, but rather may overlap (Fraser, 2003) [b]. The lifeworld, however, needs deliberation in order to catalyze "the change of prepolitical attitudes and preferences" (Habermas, 1998, p. 306), as before deliberation, these are unreflexive.

'Public spheres' in this paper generally denote arenas for public deliberation (see Fraser, 1990), and the plural is used to emphasize the multiplicity (see Cox, 2010). A textbook definition of public sphere declares it "the realm of influence that is created when individuals engage others in communication [...] about subjects of shared concern or topics that affect a wider community" (Cox, 2010, p. 18). [c] 'Influence' in this paper is understood in a broad sense, and falls outside the empirical focus.

Public sphere is a heuristic that often refers to a concrete physical place [d] (Barrett, 2012; Habermas, 1998), but could also be hosted by newspapers, television and social media. As the number of participants in the public grows and inclusiveness increases, the more abstract the public spheres become (Habermas, 1998). The face-to-face communication is characteristic of naturum, which makes it an important arena to consider. Public spheres are often referred to as groups of citizens meeting recurrently, but the encounter may occur only once (Habermas, 1998).

Defining public sphere means to define a deliberative space where certain principles and norms for speech prevail (Graham, 2009). Habermas proposed three such principles: general accessibility [e], elimination of privileges [f], and discovery of norms and rational legitimations [g] (Habermas, 1989; Habermas, 1974). This means that a discursive space can become a public sphere inasmuch as it is open for anyone to participate voluntarily and equally (cf. Habermas, 1997) [e, f], where power relations are explicated and questioned [h] (see Fraser, 2003).

Fraser (2003) criticizes Habermas' (1989) criteria that only public issues may be discussed [c], since that excludes topics of critical meaning for underprivileged groups in favour of the dominating ones that have risen to the level of the public in the first place. She maintains the distinction between public and private topics is itself a matter for negotiation.

Fraser (2003) also highlights multiplicity of public spheres; there is not a singular public sphere, but a number of parallel deliberative arenas in society that are positioned across the deliberative system and which may be either competing or reinforcing one another. Importantly, as Squires (2002) contends, "different public spheres will have access to different resources and will forge different relationships to the state and the dominant publics" (p. 448), meaning each public is uniquely positioned within the deliberative system.

5

Relating nature interpretation to public deliberation

Nature interpretation is a communicative practice in the context of nature conservation and natural resource management. The communicative quality of this practice might not only affect how we deal with questions of natural resource management, but also how we approach the future in these contexts. Above all, NI has a potential to develop deliberative capacity. Naturum as a publicly funded educational institution is situated somewhere between the state and the private sphere. Although oriented towards nature conservation, it is not bound to any interest organizations and is therefore a possible arena for unconstrained citizen perspectives to meet. In terms of public spheres, naturum may be compared to institutions such as public libraries and museums, which all fulfil important deliberative democratic functions (e.g., Widdersheim & Koizumi, 2016; Philp, 2006; Buschman, 2005). These spaces may to some extent be free public spheres, yet they may also be spaces designed or partly overseen by an authority acting strategically. The way the guides plan their naturum sessions, and whether they let the perspectives of the participating citizens or the needs of the guide and her organization be decisive, dictates whether naturum becomes another arm of the state in a new environmental paradigm or a deliberative forum where such notions can be critically deliberated by citizens. This also determines the role played by citizens. Ideally, participants in public spheres are not only observers but rather subjects [i] (Habermas, 1998). The theoretical categories [a] to [i] are subsequently used to create an analytical framework, enabling analysis of empirical data from NI sessions.

Analytical categories to examine naturum as public spheres

Based on the theoretical framework on deliberative democracy and public spheres presented above, we have condensed the theoretical constituents of public spheres to a list of theoretical categories [a] to [i] in order of appearance in the text. The theoretical categories mirror the key features of public spheres according to the literature. Nevertheless, we stress this is not an exhaustive list, and that different traditions of deliberative democracy may frame these in different ways and in different combinations. For practical and analytical utility, these theoretical categories have been further condensed to a smaller number of operationalized analytical categories (Table 1, right column) that are used ahead to analyze the character and extent of naturum as potential public spheres on the environment. In Table 1 the various theoretical aspects of public spheres are listed in short and related to the analytical categories generated in this study to facilitate analysis by linking theory and empirical findings. These analytical categories emerged as the result of the process of inductively scrutinizing the empirical material and applying the theoretical categories on the material, hence

bridging the empirical material and the theoretical framework. In the following section the analytical categories are described.

Table 1. Theory used and converted into analytical framework*

Code	Theoretical category	Reference cited	Analytical category
[a]	Weak publics, to serve deliberative democracy	Fraser (2003)	Context (1)
[b]	Independence in relation to state and market, or overlap with state institutions		Critical potential (4)
[c]	Topics of shared concern	Habermas (1989); Fraser (2003); Cox (2010)	Topic (2)
[d]	Physical place, physical vs abstract publics	Habermas (1998); Barrett (2012)	Context (1)
[e]	General accessibility	Habermas (1974); Habermas (1989)	Context (1)
[f]	Elimination of privileges	Habermas (1974); Habermas (1989)	Format (3)
[g]	Discovery of general norms and rational legitimations	Habermas (1974); Habermas (1989)	Format (3)
[h]	Power relations explicated	Fraser (2003)	Format (3)
[i]	Participants as subjects	Habermas (1998)	Format (3)

^{*} Each theoretical category has a letter a-i, according to the order of appearance in the theory section. The theoretical categories are merged into analytical categories as displayed in the right column.

The analytical categories developed to analyze the naturum sessions are (1) context, (2) topic, (3) format, and (4) critical potential. The context for the NI activity (1) represents the kind of communicative forum, its accessibility, who the participants are, the importance of the naturum as the physical place for the communicative activity, its materiality, and also how naturum is placed in a societal perspective. The aspects of accessibility and participation are related to Habermas' discourse ethics. The topic (2) is the category that will focus on the actual NI activity and its purpose and topic. We also include the product the NI activity aims to deliver, asking, "What does the NI-activity contain and what remains after the tour is ended?" The third category is the format (3) of this communicative situation. The communicative turns and roles are described, in terms of who takes communicative initiatives, who defines issues, who are seen as subjects and how these roles influence the function of the naturum as a public sphere on the environment. With critical potential (4) we connect to Habermas' and Fraser's discussions about public spheres in relation to economic and state

interests, and the degree to which NI activities and naturums are sufficiently emancipated to constitute a check on society. Central to several of the theoretical categories is pluralism regarding participants and perspectives present. Pluralism is integrated in all four analytical categories, and particularly discussed in connection to critical potential (4) in the discussion section.

Method

The study is part of a larger action research project about meaning-making and democracy in Swedish heritage and nature interpretation practice. The empirical material was generated during the summer season at three naturum sites in Southern Sweden: Naturum Kronoberg, Naturum Hornborgasjön and Naturum Vänerskärgården Victoriahuset (for now Vänerskärgården). The year of data generation is left out to provide respondents some degree of confidentiality but, as mentioned, it was done before the SEPA developed new guidelines for naturum in December 2015 (see SEPA, 2015). The sites were chosen because of their location in a cultural heritage landscape and their commitment to participate in the larger action research project. The findings from these case studies are in-depth pictures of the format and content of guided tours at these naturums, regarding the deliberative democratic qualities they may have. The guides are referred to as 'she' and the visitors as 'he' to distinguish between the voices. The term 'participant' includes guides as well as visitors.

The primary means of data generation was participant observation, carried out in six guided tours at these naturum sites (Table 2). The guided tours lasted 32 minutes on average and have each been designated a number (G1 to G6). Some background information on the three sites is provided to frame the findings. At Naturum Kronoberg G1 took place inside with a group of about ten, mainly Danish tourists. Naturum Kronoberg is located in a heritage site on a former iron work estate, and the task of the naturum is to represent the nature of the whole County of Kronoberg.

Naturum Hornborgasjön is located by a bird lake, famous for dancing cranes. The area has a long history of human settlements, including the lowering and draining of the lake. From the 1980's the lake was restored and considered one of the most important wetlands in Europe. Two guided outside walks in the landscape around naturum feature here: an early morning bird walk with only three participants (G2); and a "nature bingo" activity where three to four families participated, including children and grandparents (G3).

Naturum Vänerskärgården is a new naturum site, located by Läckö Castle, an important site in the 17th century due to its location on Sweden's largest lake. The archipelago of Lake Vänern hosts unique nature, including Djurö National Park. One guided session had about five senior visitors (G4), and two guided

sessions hosted conference guests of about 30 people (G5 and G6). All three activities took place with a still standing group of visitors, on the wooden deck of the naturum building.

Table 2. Overview of guided tours at the three sites

Site	Naturum Kronoberg	Naturum Hornborgasjön	Naturum Vänerskärgården
Tour	Guided tour inside naturum, 35 min (G1)	Guided walk outside with few participants, 37 min (G2)	Guided tour outside naturum with senior people, 16 min (G4)
		Guided walk with "nature bingo for children, 48 min (G3)	Guided tour outside naturum with group of conference guests, 31 min (G5)
			Guided tour outside naturum with group of conference guests, 27 min (G6)

All sessions were video recorded from two angles. The recordings were transcribed and analyzed through thematic analysis in a two-cycle process (Saldaña, 2013). To provide background information to the analysis, qualitative interviews with the guides and workshops with guides and researchers were audio recorded and transcribed and naturum exhibitions were documented and analyzed.

The analysis was carried out from two directions: (1) through applying theory on deliberative democracy, public spheres and NI, asking what deliberative qualities that can be seen in NI, and (2) through studying the transcripts and videos of the above-mentioned NI sessions. The hermeneutical process of analysis alters understanding of the empirical material (the parts) and the theory (the whole), which continuously supports an in-depth interpretation of the full case.

In the following section, concepts of deliberative democracy and public spheres are specified and discussed, in terms of their relevance to understand the communicative practice of naturum sessions.

Findings: The Guided Sessions at Three Naturums

In using the above categories, our presentation of the empirical material from the guided tours displays what kind of communicative situations these are, who the participants are and how they participate. In general, the six analyzed guided sessions, topic-wise, include naturum (the particular naturum building and its design, exhibition design, naturum as a concept and its purpose); the surrounding landscape (its geology, natural historic succession and human use); and some specific species and objects that are found on the site. Conservation and environmental issues also feature as topics. More controversial topics exist but occur less frequently.

The format varies among the guided tours we have analyzed. Large parts of the sessions involve the guide giving lectures, which allows for questions from visitors whenever those appear. Session G3 is distinguished due to the format, in which the visitor observation, to a large extent, directed topics and conversations. 'Nature bingo' is how the guide labelled the activity, where each participant was having his own bingo chart with pictures of species and other objects found in nature. During the walk the participants were to cross out those objects they found, and after a full row, to call out "bingo!" Session G2 was arranged in two parts: bird watching followed the initial lecture given by the guide. It becomes obvious that the naturum guides in all sessions are able to direct both content and format. Most of the social interaction also takes place through or mediated by the guide. The visitors interact within their own subgroups, and the guide keeps these sub-groups together.

The guide is given the role of leading the group and also as the one who has legitimate knowledge to impart to the interested visitors. The visitors are there to listen to the guide, and do not generally expect to contribute with their own stories or to interact with other visitors. The guide seems to have a crucial role of initiating and affecting meaning-making between all participants. These communicative situations are enacted as if a message would be something linearly transferable, as demonstrated by Bergeå and Hallgren (2015). Indeed, the guide is expected to confirm such aspects that are part of the topic and to limit aspects that are off topic. The knowledge and interests of the guide influence what are considered legitimate topics, and this in turn depends on the content of the particular naturum's exhibitions and programmes.

An overview of the six sessions is displayed in Table 3 with a few examples from each of the analytical categories. A richer picture of the sessions is presented below structured according to the four analytical categories.

Table 3: The six sessions analyzed with examples from each of the analytical categories

Guided tour no.	Naturum site	1 Context	2 Topic	3 Format	4 Critical potential
G1	Kronoberg	Inside, predator exhibition, Danish tourists, open to the public		Guide speaks based on objects in the exhibition, opens for dialogue and questions at several points	
G2	Hornborga		Birds, cranes and the history of Lake Hornborga	First part guide reads manuscript, second part bird watching	Potential discussion on farming vs conservation, guide not prepared for controversial topic
G3	Hornborga	Nature bingo for children with families, open to the public	Species on a bingo chart, species and objects along the path	Guide initiatives, participant initiatives, questions, small discussions, second part very informal, participants interact with each other	Format allows smaller chats and participant initiatives
G4	Väner- skärgården	Outside, no movement, senior citizens, small group, open to the public	the Lake Vänern	Guide gives a speech, opens for a few questions	Topic: Some on water regulation (partly controversial issue)
G5	Väner- skärgården	Outside, no movement, large group, conference guests	The naturum building, Lake Vänern and its history	Guide gives a speech, opens for a few questions	Topic: Touches on society-nature relations, environment
G6	Väner- skärgården	Outside, no movement, large group, conference guests	_	Guide gives a speech, opens for a few questions	Topic: The process of establishing this naturum, what conservation and national park mean

Context (1) What does naturum's context and place tell about its characteristics as a public sphere on nature?

Since a principal purpose of naturum is to inspire people to visit nature, one might expect naturum tours to be held outside in nature offering visitors a first-hand experience of the outdoors. This is, however, a main feature in only two of the cases studied: the nature bingo (G3) and the bird watching (G2) session. In those two cases, the nature experience is not discussed as such, even if the landscape and its objects are central features in the story told by the guide. By comparison, the guided tours at naturum Vänerskärgården (G4-G6) are remote in relation to the material landscape and its objects. The tour at naturum Kronoberg (G1) takes place indoors with the museum objects as the centre of the discussion. The guide in G5 standing on the deck outside naturum highlights the task of getting people out in nature:

A naturum should be like an inspiration to get outdoors, into the real nature here. Therefore, what you can find inside [at naturum] gives you a flavour of what you can find here outside. The thought is not to remain inside, but that you should actually venture into the outdoors afterwards.

Early in the sessions, the guides inform visitors about the purpose of a naturum and what a national park is. Here the guides tend to focus on the function and design of the specific naturum building. The guides present the idea behind naturum and ask if the visitors have visited any other naturums previously. The purpose of the particular kind of NI activity is, however, not brought up during the sessions. The guides do not spend any time explaining how naturum is related to Swedish nature conservation and the policies behind it. One guide describes naturum thus:

It should be natural hues and give a bit of a feeling of actually being outside too. What is not outside in nature, but inside in naturum, should function as the 'bridge into nature', so that you should get a feeling of getting there [outside]...

Another guide highlights that the objectives of naturum include making people appreciate nature, finding their way outdoors and understanding the importance of taking responsibility for nature. Despite this, the image of naturum being fancy pieces of architecture is present. The guide explains:

[...] the aim with these places, is not only being 'flashy' and 'stylish', but it is about [inspiring] people to get outside in nature. [...] You [naturum staff] should find that connection so that we succeed to get as many people as

possible out into nature, and also to have an understanding of nature [...] keeping in mind that 'Now we are *in* something, and *that* we ought to take care of for the future'.

The total collection of transcripts show that the guide sets the topic including the starting point and ending point of the session. As interviews and workshops with guides reveal, the topic is determined not only by the interests of the guide but the naturum organization usually provides manuscripts for their guides, and these manuscripts are often connected to the exhibition in the naturum. This means that the producer and designer of the exhibition have a certain a priori influence on the content, even in the guided tours. From the interviews and workshops we also find that when a new naturum building is designed, the architects and designers have a large influence not only on the building itself, but on the design and idea of the specific naturum, which is then setting the overall theme of the exhibition (see also SEPA, 2006). Naturum Vänerskärgården has actually constructed the concept of Vänerskärgården (i.e. the Archipelago of Lake Vänern) during the process of planning the new naturum, building on ideas of local development and tourism.

Topic (2) How does the aim and topic contribute to naturum's function as public sphere on nature?

In what follows, we examine the kinds of substantive themes or topics that emerge in the guided sessions.

Objects (such as species or minerals but even the naturum building itself) and specific phenomena (such as rock formation or dancing cranes) are generally given proportionally more space in the guided tours than features of context. The big questions related to the history and future of man and Earth are sometimes implicit, as for example in G5 (i.e., Lake Vänern being an important water supply, in relation to water scarcity in other parts of the world), G2 (i.e. on the need for exploiting land for food production causing severe consequences on nature) and G6 (i.e., naturum should give the visitors the experience that this piece of nature is something that has to be maintained for future generations). One of the guides describes in an interview that she wants to give visitors the larger picture of human's time on earth: she illustrates that the human species has only existed 1 millimetre if the whole history of Earth is represented by a measuring tape of 46 metres. More often, however, the topic gets rather particular, including mentions of the weight of a lynx and the number of bees in a hive. The specific history of a particular stuffed wolf at naturum Kronoberg, for example, is a topic on which the guide particularly lingers, but without connecting it to sensitive issues of potential engagement to the public.

At naturum Vänerskärgården quantitative data is used to fascinate the visitors, including the number of islands and the amount of litres of water in Lake Vänern. In one attempt at connecting context to the particular, a guide uses a concrete object—a stuffed sea eagle—to tell a story that includes biological facts but also aspects of how society's view on wildlife shifts back and forth over time. Ecology, comprising relations between species and their environment, is a topic of connections that one might expect nature guides to relate. This does occur in the observed guided tours, but to a limited extent. One example is provided by the guide in G5:

You need to look at it as food webs, [regarding] that everything is connected. And if you remove something in one end, it is very probable you will see some effect somewhere else far in the other end that you wouldn't have expected.

Further, the concepts of nature conservation and nature protection are not explained by the guides, but it is taken for granted that visitors know about this. One guide states that many naturums are connected to national parks, and reflects in front of the visitors on why Djurö in Vänerskärgården is qualified as a national park, using her own experiences and nostalgia to illustrate the concept of national parks.

The guide decides what to talk about. In general, the topic depends on (1) the frames of the particular naturum and what it aims to display, and (2) what parts of the exhibition or the manuscript the guide herself is interested in highlighting. To this end, none of the guided sessions have human-nature relationships as main theme, even if it appears as a secondary theme in naturum Vänerskärgården, for instance that the biodiversity in Djurö National Park is a product of continuous human activity. Episodes where the guide and visitors speak of the local nature, species and the tasks of naturum are examples of how topics with a reference to the commons, and thereby with relevance to democratic deliberation, are addressed during the guided tours. By contrast, episodes that are oriented towards the particularities and even personal experiences might not qualify as topics for public deliberation. Nevertheless, they do carry a potential deliberative function in bridging that gap between subjects if visitors were deliberately given space to share their views and experiences.

Format (3) How does the format and communicative roles affect NI activities' contribution to democratic deliberation?

We find that both the visitors and the guides act according to what they think is expected from them in the NI setting, as opposed to from what would be the communicative norm in everyday conversation situations. In G3, for instance,

the group size is minimal but still the guide and visitors maintain a physical distance as in a formal setting, and the guide literally reads from her manual.

The guides open for interaction with the visitors, usually by initially asking if they have visited any naturum before. Questions can generally be interpreted as invitations to interact (Schegloff & Sacks, 1973). In the bird walk (G3), there is a clear shift between the initiating lecturing part and the following bird watching activity, which allows considerably more questions. The guides obviously have the role as an expert who disseminates the correct answers and asks follow-up questions to hear if the visitors remember what she just said, like in G2 when the guide (G) asks the visitors (V) at the end of the tour:

G: So, now again what kind of goose is this?

V: A brownlag goose.

G: No.

V: A greylag goose.

G: Yes.

This way of confirming or providing correct answers could be both interpreted as a manifestation of the expert versus visitor roles, as well as a method for the guide to confirm and involve the visitors in conversation.

A guided tour contains both planned and unplanned moments. The guides can prepare the theme and the content, but the number of visitors and their interests are usually unknown before. All guides adhere, at least partly, to a lecturing monologue. The length and arrangement of the lecture parts vary. Our observations show examples where the guide tells a story that she enriches with personal perspectives and imagery. There are also episodes where the guide makes an exposition on geological processes in a quick tempo, assuming previous knowledge on feldspar, erosion and bedrock plateaus, which reveals scarce responsiveness. A longer lecture part of a guided session can either function as a storyline or risks creating a distance between the guide and visitors, depending on what the rest of the session looks like.

The guide is the one who decides the format of the session. If the guided tour is planned to have a less conventional format with more visitor involvement, it is typically noted in the invitation. In the "nature bingo" session (G3), for example, the guide creates a space for observations and interests of the visitors to affect the content of the session from the outset. Nevertheless, deviation from a traditional format where the guide speaks in a monologue style, typically precipitates uncertainty among the visitors. "Let us know when it starts," a visitor says initially at the nature bingo session, which indicates that the guide is expected to initiate the session and may reflect uncertainty about what "it" is, (i.e., the purpose of the activity). While seemingly mediated by the guide, it can be noted that the

bingo format also assumes heterogeneity in the focus of the guided tour since everyone is given different bingo charts. The way the guide tries to direct the attention of the group does not limit what the visitors observe and interpret, but rather expands their horizon.

To the visitors it might be rather unclear why certain topics are brought up. It might partly depend on the guide taking certain things for granted and forgetting to explain the underlying purpose, but it may also be that the purpose is not clear to the guide herself. It might therefore be difficult for the guide to create a framework story around her tour. In the exhibition at naturum Kronoberg, there are differently sized sandbags corresponding to the weight of four different predators that are represented in stuffed format above each sandbag. The guide instructs a visitor to come in the front and pull the rope attached to the sandbag to assess the weight of a lynx. This situation, ostensibly permitting visitors agency in the tour, feels constrained and the visitors seem to follow the instructions from the guide more to comfort the guide than for their own interest.

Another example is a showcase with a light switch that illuminates a plate with the food of a wolf. The purpose with the light switch is reasonably not that a guide should instruct adult visitors to press it. Rather, it seems to be for visitors at the exhibition unaccompanied by a guide to get an interactive experience. When the guide asks the visitors on repeated occasions to pull a string or press a button this becomes a repetitive predictability that arguably does not contribute to the deliberative capacity of the communicative situation. Rather than an opening for reciprocity and dialogue, it assumes a character of obligation that dominates the tour at the expense of real engagement.

Just like in any social group, there is a shift in the social dynamics over time, even in a highly ephemeral group of naturum visitors. This is particularly evident in the nature bingo (G3) where the visitors are families comprised by parents or grandparents with children. Initially the visitors keep to their own families and all interaction takes place either within each family group or with the guide. When the guide announces it is time to head back towards naturum, the interaction is transformed. Some of the visitors overcome the social distance that have structured their interactions (or lack of) so far, and become less constrained. The formal atmosphere that pervades the beginning of a group process has gradually been replaced by more social exchange.

To establish deliberative space, people need to be able to try each other's perspectives. They need to do so in order to be accountable to the validity of each other's arguments, and not to an authority figure. Our findings show that there are four kinds of communicative processes that take place during these guided walks: (1) when the guide uses most of the speaking space herself, (2) when conversation takes place between the guide and the visitors, (3) when the visitors engage in communicative activities with people they know without the

guide to mediate them, or, more rarely, (4) when visitors engage in communication directly with visitors they did not know before. In a conventional public sphere the deliberation is not only taking place between people who are family and friends, but also between citizens without personal connections. One of naturum's abilities to work as a public sphere is the allowing of citizens to meet beyond those social boundaries that commonly prevent social integration.

Critical potential (4) Is there space for being critical?

On a conceptual level, the critical potential of the naturum sessions depends on its independence from state and market influences and the consequent potential for participants to express criticism. This means ability to critique, contest and hold institutions accountable, which includes sharing diverse perspectives to fulfil the basic democratic principle of freedom of opinion (Habermas, 1997). A naturum session may also be a space for critical opinions to be expressed, specifically on nature conservation and conservation policy. Naturum has a certain connection to the state through its setting and funding. The guides are implicitly connected to the regional County Administrative Boards as well as to the SEPA, yet their role allows some discretion.

In various ways the naturum sessions contain moments where aspects of nature are related to human society, involving both the function of cultural heritage practices for biological values, as well as how human activities through history contribute to large-scale landscape change. In this way, naturum sessions may serve as a critical check on current policy directions and their environmental impacts. When the guide imparts a connection between environmental problems and nature conservation it also implies a reference to human-nature relationships in terms of natural resource management or environmental degradation by human hands. The view on nature conservation is also affected by whether the guide describes nature as being separate from culture or as being formed by culture. Nature conservation can be regarded as a protection measure against human activity or as the continuous maintenance of species through active human management, corresponding to hands-off and hands-on views on the environment (Hall, 2014). How the local nature conservation processes look today and how the landscape has historically developed are common themes cutting across the sessions. This could potentially enable critical discussions about the future, as an extension of discussions on landscape development over time, which could be a central feature of a public sphere on the environment.

A public sphere needs to provide space for multiple voices, diverse opinions and engagement with potentially controversial issues. The guides, in general, do not seem sufficiently prepared to engage in controversial topics with visitors, as evidenced by the example of sticking to specific and quantified information

about particular predators rather than addressing the enormous controversy of predator conservation in Sweden today. It is also evident that guides are careful in choosing words when talking about potentially controversial topics, as for example in G5. "Well we might have emitted some new environmental pollutants, which is not very wholesome [...] [and] realize not until afterwards that it might not have been very good." The guides show an unwillingness to invite further discussion of such topics by abandoning or avoiding them.

Even if the naturum sessions scarcely denote symmetrical dialogue between guide and visitors in the sense that all would be equal participants, there are usually opportunities for visitors to share their experiences in relation to topics brought up by the guides. These opportunities are only embraced by visitors to a minor extent. The setup of the nature bingo session, as a contrast, enables multiple people to share simultaneously, which increases the space for visitors to be active, acknowledging their own experiences and perspectives.

Discussion

Based on the presented findings about the democratic qualities of naturum, what kind of public spheres, if at all, are these naturums in their present form? What qualities do they have as arenas for public deliberation on the environment?

Disparities between objectives and practice

The context of the guided sessions shows that although naturum sessions project an aim, it is not evident to the visitors what the aim is and this has bearing on the communication. Naturum as a space is more than fine architecture, even if the architecture sometimes eclipses the environment, particularly when tours take place indoors or focus on design aspects. The strong focus on indoor materiality, rather than on issues pertaining to the broader environment, may open up naturum for potential critique that they are too "local, sectional, or issue-specific" (Cohen, 2006), to function as deliberative publics. Sessions in the landscape, by contrast, may promote engagement with 'the common third' (Vasstrøm, 2014), as mentioned. Nevertheless, NI holds possibilities to create common experiences of nature when held outdoors. This is an untapped resource especially in the Scandinavian context of *allemansrätten* (the Right of Public Access, or Freedom to Roam; e.g., Sandell & Öhman 2010).

We argue the setting and materiality are particularly important in promoting the capacities of deliberation, by permitting pluralism of topics, rendering the context concrete; engaging citizens' imagination through multisensory experiences; re-orientating the role of the guide from lecturer or 'node' for all dialogues to facilitating independent dialogue; and by having the outdoor relax formal, and thus proscriptive atmosphere. Indeed, the transformative function

of NI may also be facilitated through offering people to "collectively remember that they are part of nature in a state of critical reflection" (Gunderson, 2014, p. 49). As such, the sessions are an "engaging event" (Wiederhold, 2013, p. 10) at a fundamental level of participation and cognition.

On the ideas of Wiederhold, different material settings invite different forum-based rules and resources (cf. Wiederhold, 2013). Forum-based rules include considerations on how the participants talk and listen, make meaning, share experiences, and learn, but also what is expected from the situation and what the participants expect from their roles, respectively. One forum-based rule is that participants can move differently outdoors compared to inside a building, allowing for more diverse patterns of participation. Outside, the citizen may be thought of as a co-owner of the common third, whereas indoors, the setting is privatized, one is invited as a guest, and walls confine participation on a fundamental level.

Furthermore, guiding people outdoors may present a challenge as compared to indoors where a controlled situation can be achieved. Hence, the variation in what objects and phenomena that are observable may theoretically be higher. In addition to this, interactions occur in more constellations, particularly as groups move along in the landscape and meet from new angles. One way of conceiving of this is that the norms pertaining to interaction are different outdoors (Wiederhold, 2013). Indeed, walking outdoors increase divergent thinking, something that is for instance used in the tradition of peripatetic conversations. When citizens orientate themselves in nature, their attention is necessarily more directed towards the landscape than, perhaps, towards the guide. In response to this, the guide may adopt a sense of humility and open-endedness, acting to facilitate discussions grounded in tactile experiences (see Carolan, 2006, for tactile deliberative spaces). The interpreter should particularly stimulate dialogue to take place independently, between citizens and their nature. Nevertheless, we saw that even on trails outdoors, where dialogue could be more inclusive and plural, guides often stick to their scripts (G2). This could be seen as a coping strategy to the unpredictability of the outdoors, allowing the interpreter some sense of control in a non-confined environment.

A question that is central for assessing naturum as a public sphere is whether outdoor sessions makes participants more equal. The answer is yes and no. Yes, in terms of increased pluralism among participants in being heard in the outdoor environment. No, in terms of some subjects having difficulties in moving, seeing, hearing—communicating—outdoors, where the adjustments to human needs are limited. This is a task for the guide as facilitator—to compensate for participants' different needs and capacities.

Environmental communication highlights the environment or the materiality as important to the symbolic notion when assessing and designing environmental communication processes (Alarcón Ferrari, 2015; Peterson et al., 2004). Communication also emphasizes the common. The etymologic meaning of communicate comes from Latin *communis* and means 'shared' or 'common' and communication accordingly means 'to make common' (Communication, n.d.). This includes interactions that take place in the border between public and private, but does not involve completely private matters. Protected nature sites where naturum are located may be conceptualized as new commons (Pieraccini, 2015).

The role of the interpreters is dual. They are both experts and process leaders. Public deliberation often requires facilitation, which is neutral to participants and topics. For improved deliberative capacity of naturum, especially regarding its critical potential, the interpreters may need to find strategies to handle this contradiction. The new SEPA guidelines come with a renewed role for interpreters, and some educational opportunities. In accordance with this new role, the Swedish Centre for Nature Interpretation has recently offered courses nature interpreters in "interpreting sensitive topics" and in "dialogue for landscape" (SCNI, 2015). One strategy for individual interpreters to separate between expert and facilitation roles could be to divide the NI session in two parts, keeping the expert role to the first part and ascribing the second part to facilitation. A strategy for the naturum organization could be to involve two interpreters in such guided sessions that are aimed towards public deliberation. This role confusion in one sense mirrors the double role of the democratic system to allow for public spheres that are independent from the state—while the state also has a responsibility to reproduce the conditions for democracy, and thereby to create public spheres for critical deliberation (Caselunghe, 2018).

Naturum is a context that is relatively new (contemporary) and dynamic and its mission is developed according to the policy ambitions of public participation in nature conservation. New naturums are also being constructed with contemporary features that have the possibility to extend their communicative arena. One requirement for naturum to improve deliberative qualities is to regard learning as co-construction of meaning (cf. Kent, 2008), which implies that the visitor is the interpreting subject as much as the guide is.

The visitors have different purposes with their naturum visits, and although they are open to everyone and entrance is free at all state-owned naturums (SEPA, 2004), there are certain categories of people that are more often seen here. Although schools facilitate naturum visits for children from all backgrounds, school activities were excluded from this study since they do not fulfil the democratic criteria of being voluntary. In this study there was no documentation of social background, so that remains unknown, but likely resembles that of average museum visitors.

The Swedish policy of nature conservation is interpreted into the SEPA guidelines for naturum, and there are local objectives set by the County Administrative Board or other hosting organizations, as well as interpretations by the guides. The objectives differ between these levels and may contribute to our impression that the objectives behind each guided session could be seen as unclear. This may not in itself be a problem, as deliberation is open-ended (e.g., Cohen, 2006), but it seemed it discouraged some visitors from speaking, partly out of fear that their contributions were inappropriate.

Substantively, the naturum sessions deal with public topics at different scales – from the naturum building and the local species of flora and fauna, to human footprints in the landscape and future water supply. Sometimes environmental themes are obscured by architecture, as when the building is overemphasized in the talk. By occasionally featuring personal reflections, there is no sharp border to what might be regarded as private and public issues. To be sure, the linking up of personal and private experiences into public and political issues is the constitutive process of a public sphere (Siachiyako et al., 2017). Whereas the guided sessions mainly consider public topics, the guides do not explain that these public topics are about commons. There are also informal restrictions regarding which topics are mentioned and which topics are not, largely originating from the guide's personal beliefs, the conventions of the naturum, the degree of adherence to the guide manual and the reluctance to engage in conversation about contested environmental issues, like predator conservation. Nature conservation and natural resource management are sectors filled with disagreements and shifting priorities which is not yet fully reflected at the naturums we studied.

One unexpected finding is that guided sessions at naturums do not always take place outside in nature. The guidelines emphasize inspiring people to get outside, but it seems that the guided sessions often are limited to the confines of the building. From the interviews and workshops, we have surmised that the SEPA prompts naturum to keep the building staffed, which might decrease the human resources available to be spent on outside activities.

Interestingly, since the architect determines much of the naturum concept, the design may become naturum's interpretation of itself. The architect, who is not an NI professional, constructs the idea about naturum, and ultimately interprets and materializes the SEPA's concept of naturum.

Arena for dialogue?

The idealized public sphere that Habermas describes is scarcely approximated by naturum today. The space for speaking is unevenly distributed and the agenda is mainly predetermined by the guide and not announced to the other participants.

The sessions often deal with concrete observations, which ostensibly contribute to the sense of a didactic experience that prevents the realization of unconstrained deliberation. Lecturing on absolute facts is more common than discussing things such as connections, different ways to understand nature, the importance of nature for society, our roles as responsible citizens or contested environmental issues. The inclusion of such topics would strengthen the role of naturum as a public sphere on the environment, in terms of fulfilling the deliberative democratic criteria of considering a broad range of issues (Gutmann & Thompson, 1996).

Given these shortcomings in approximating deliberative ideals, what makes us consider naturum in terms of a public sphere on the environment in the first place? First, the place, the context and the encounters of the public represent components found in this particular constellation and not elsewhere. This occurs because encounters are not set in a commercial context or a government-appointed public. In this way, they may be said to approximate characteristics of deliberative "enclaves" in being partly shielded from such interests (Mansbridge, 1999). Naturum could be compared to museums and libraries even though the potential of naturum as public spheres are partly contingent on the guidelines of the SEPA. It can be noted that the revision of these guidelines in 2015 involves an emphasis on the visitors' perspectives, inviting the local citizens, and hosting environmental deliberation relating to contemporary issues:

Naturum should aim at working as an active arena for dialogue and discussion. Naturum should also contribute to challenging and developing the visitor's view on nature conservation, outdoor recreation and environmental issues. (SEPA, 2015, p. 10; our translation)

Our empirical study was conducted before these new guidelines had been implemented. There are good reasons to follow up empirically on the implementations of the new guidelines (SEPA, 2015) since these seem promising for the development of naturum as a public sphere on the environment. For instance, our study shows that expectations about roles from the visitors and the guide inhibit deliberative dialogue. The new guidelines, however, will likely affect the guides' interpretation of their own role, possibly leading to a re-interpretation even of the visitors' expectations.

To what extent is a guided naturum session a predefined act of speech, and to what extent is it open-ended? The guide indicates implicitly what kind of nature is legitimate to talk about at a naturum session, thereby defining the boundaries of the public (Gardiner, 2004). If any unexpected event that would occur during a session is ignored by the guide, it indicates that this social interaction has less priority. The agenda belongs to the guide and if passing birds must not interrupt

the guide's attention, the visitors hesitate to take initiatives. This indicates that the NI session does not esteem participation and does not acknowledge an epistemology where knowledge is socially constructed, but rather assumes a didactic transmission of knowledge.

Compared to Denmark (cf. Bondo-Andersen & Jensen, 2005; Bondo-Andersen & Linnemann, 1999), the public NI in Sweden is more authoritative. Globally, the didactic approach within NI has been dominant and much of NI is set within a discourse of persuasive communication (cf. Ham, 2013). Scholars are however increasingly interested in the democratic and dialogic qualities of NI, such as Silberman (2013) suggesting a new process-orientated paradigm instead of the dominating product orientation within interpretation. NI in Sweden could develop its conditions for hosting public deliberation by mimicking democratic initiatives within cultural heritage and museums. One simple starting point for naturum would be to inform the visitors about naturum's societal role relating to the new guidelines.

Conclusions and implications for deliberative practice

In practice, guided sessions at naturum are public spheres on environmental issues, where both tourists and local citizens meet regardless of background, economic interests and education, and can learn and talk about nature. The character of the group that meets, with diverse knowledge and interests, affects where this kind of conversation starts and ends. The relative capacity of naturum to serve as a forum for public deliberation on the environment was arguably not realized before the guideline revisions of 2015. Hence, strictly evaluating pre-2015 naturum sessions according to Habermas' postulates may be unfair. Our study rather wishes to point at the often overlooked potential of understanding NI as a space for public deliberation on the environment, with nature as a shared context and setting for the story told. Democratic processes are dependent on a materiality to process, and therefore the environment may be seen as both a scene and a matter for democratic deliberations which is something that naturum, especially through outdoor NI, has the potential to provide (see Caselunghe, 2018).

Communication is a practice that changes something, even if very little, within and between the subjects participating. Through developing the democratic aspects of NI encounters, both the meaning constructed through these experiences, and the societal function of naturum can be strengthened. In this sense, we perceive naturums comparable to mini-publics in that they are not regarded as "[...] full instances but as incomplete parts of a wider system of deliberative democracy" (Böker & Elstub, 2015, p. 139), denoting a microcosmic deliberative environment (Smith, 2013) that can contribute to the overall capacity of the deliberative system.

Besides the guided sessions, naturum comprises much more, including exhibitions and trails in the surrounding nature with signposts. The kinds of encounters taking place along the path or in a bird tower must also be included within the remit of naturum as public spheres on the environment. They might be far away from the ideal public arena for democratic deliberations, but as Fraser (1990) intimates, few arenas exist in such ideals today. Public spheres in our time are often otherwise located in social media; different kinds of mass media do not allow the in-person communication that can activate norms of discourse ethics. We regard naturum as an implicit and underdeveloped communicative forum where citizens actively search for knowledge and have opportunities to act out other sides of being human beyond the dominant consumer role. Naturum is a space for the citizen. Developing them as public spheres could be motivated both from a democratic point of view and would benefit engagement with the environment. Thereby naturum could serve as an innovative entry point into the third-generation deliberative democrats' calls for real-world experimentation with publics (Böker & Elstub, 2015).

Deliberative democracy needs to take environmental topics seriously and this study shows the role visitor centres can have in the deliberative system. The study also highlights the potential of connecting deliberative processes to the materiality of deliberation, in hosting deliberations *on* nature *in* nature.

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