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Balancing differentiated interests and conceptualizations in environmental management: Working across sectors in Swedish river restoration Annelie Sjölander-Lindqvist

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## Balancing differentiated interests and conceptualizations in environmental management

# Working across sectors in Swedish river restoration

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#### Abstract

**Purpose** – The purpose of this paper is to explore the everyday practices and routines undertaken by an authority to support internal coordination and deal with sector-specific interests and conflicting goals, and how exclusive interests and objectives in policy work are construed, understood, and negotiated in practice.

**Design/methodology/approach** – An institutional ethnographic approach was adopted to investigate how policy-formulated goals, bureaucratic aims, and rules establish a frame for action procedures and alternatives available for agency-level collaboration.

**Findings** – The results of this study reveal how compromise and agreement may be difficult to achieve in practice since each concerned administrative unit has its own sets of criteria concerning what constitutes valid or valuable knowledge of aspects relating to river restoration. The study illustrates how lack of knowledge affects collaboration, how the policy process is informed by sector-specific rules and norms for organizational conduct, and how the professions in their discussions and interaction concerning the issue of river restoration uphold, demarcate, and negotiate what knowledge and interests should take centre stage in the decision-making process.

**Originality/value** – The paper contributes to policy anthropology literature and highlights how the policy process is informed politically and regulatorily but is also guided by sector-specific norms, values, and differently construed ideas of temporality and heritage. In this case, policy work exposes contrasting ideas of the past, present, and future, and mobilize diverse conceptual models and structural arrangements that are continually performed and contested in everyday policy work.

Keywords Collaboration, Decision making, Cultural heritage, Institutional ethnography,

Policy work, River restoration **Paper type** Research paper

#### 1. Introduction

Often, when speaking about collaboration, what comes to mind is the involvement of the public in decision-making processes to pursue democratic ideals of legitimacy, transparency, and accountability (e.g. Aarhus Convention, 1998), to achieve popular support for potentially unpopular decisions (Hendry, 2004), to foster social capital (Fishkin, 1997), or to enhance the implementation of political decisions through integrating local knowledge and experience (Farrington, 1998). In thinking about collaboration, what may also come to mind is how various organizations work together to improve strategic performance, for example, in joint projects or businesses (Belderbos *et al.*, 2006). Of particular interest too is the, less often considered, form of collaboration that occurs within

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Journal of Organizational Ethnography Vol. 4 No. 3, 2015 pp. 306-323 © Emerald Group Publishing Limited 2046-6749 DOI 10.1108/JOE-07-2014-0022 organizations, that is, between the different internal units. This form of working arises when different units of resource management agencies seek to manage internal knowledge flows and their diverse definitions of the world they work in when enacting policy. River restoration provides a case in point to explore this form of intra-organizational working mode. In this paper, I look at efforts to improve hydrological, geomorphic, and ecological processes in degraded watershed systems in order to explore the multiple conditions and dynamics surrounding environmental policy, ecological realities, and collaborative work.

Restoration of watercourses usually involves replacing or recreating lost or damaged elements of natural systems as well as removing cultural artefacts hindering ecological rehabilitation. Tasks could include habitat enhancement, modifying water passages, bank stabilization, establishing technological fish passage solutions, and altering catchment land use. The different agency sectors and units involved in these tasks need to meet, discuss, and negotiate how to proceed with the re-establishment of the "original" and "natural" state of rivers and streams as they were before human disturbance. In Sweden, river restoration is an activity involving fishery and natural and cultural heritage conservation interests and exemplifies how policy work, by means of negotiation, has to fit within diverse institutional paths and regulatory domains. In addition, as a process conditioned and limited by policy and by how scientific disciplines and knowledge systems can successfully be integrated (Hillman, 2009; Howitt and Suchet-Pearson, 2003), river restoration is underscored by different representations of time and history (Henning, 2008). Together, these dimensions open up a policy process that is neither fixed nor stable.

This study empirically investigates river restoration planning in southern Sweden and explores a regional authority's everyday practices and routines undertaken to support internal coordination and deal with sector-specific interests and goals. A core question in the decision-making process at the agency level concerns what rivers and streams should be restored. Another core question concerns what actions are necessary in order to proceed with improving the biological functioning of water resources chosen for restoration. The answer to these questions may lie in the removal (wholly or partially) of cultural heritage elements such as traces of timber floating, dams, and mills of prehistoric to recent industrial origin. This leaves decision-makers with the question of how to run a process in which opposing interests and authority regulations construct barriers to policy implementation. Consideration must be paid to different land uses during the past, for example, the fact that water resources are parts of landscapes that have evolved in response to complex geological and climatic history (e.g. Thompson, 2005). Therefore, when improving the natural functioning of rivers and streams, affected in their biological and hydromorphic dynamics by, for example, hydropower turbine installation, ditch digging in river forelands, and damming, the actors in charge of restoration will have to find ways to work with and resolve multiple water and riparian claims. They must find ways to reconcile their sometimes diverging interests and regulatory defined obligations. With this policy work as point of departure, the paper highlights how agency workers are immersed in a process of "collective brokering" (Wenger, 1998/2008) when they, because of sector-specific regulations, values, and norms, on one hand, and national policy goals, on the other, must strive to find ways to reconcile differentiated interests and conceptual models in river restoration.

The paper begins by discussing collaboration and decision making as "consequential" and "contingent" enterprises arising when authority actors, each with distinct professional and personal values, preferences, and experiences of customary practices,

meet to discuss alternatives for organizational action. Next, the paper outlines the research approach, discussing methodological considerations. It then outlines the policy context of river restoration before it turns to the exploration of the case study in Section 5 and onwards. In examining decision making in administrative settings as a cooperative activity, the paper discusses how collaboration between the internal sectors of the regional agency becomes imbued with conceptual, methodological, and practical challenges when there is a need to realise an integrated concern for both social and biophysical dimensions in priority making and decision work (Articles 6-b, 10-e, United Nations Conventions on Biodiversity).

#### 2. Collaborative decision making in administrative settings

Collaboration both between and within organizational settings is employed when working in isolation will not result in attaining the desired goals (Huxham, 1996). It can be defined as a relationship-building process that, ultimately, is devoid of hierarchical mechanisms of control, is inclusive in character, and occurs through problem-setting, agenda-setting, and the structuring of activities, ideally resulting in joint agreements, dialogues, and negotiated settlements (Phillips *et al.*, 2008).

This understanding of decision making as rational and linear in character and beginning with policy formulation and ending with implementation and calculable outcomes is challenged by critical and interpretative social science (Boholm *et al.*, 2013). Instead of a rationality-guided policy process where rationales are shared and agreedon, and in which the decision-makers have assessed the effects of alternative strategies and evaluated them against goals set (Simon, 1987), institutional interaction patterns tend to concern negotiation and struggle when the interests of different individuals, groups, and sectors become involved (Colebatch et al., 2010, Mollinga, 2008). Richards and Kuper demonstrated in the early 1970s that decisions in tribal or parliamentary councils vary in clarity, solidity, probability, and certainty (Richards and Kuper, 1971; van Asselt, 2005). This may be due to, for example, agency units competing for internal resources (Tsai, 2002). Another explanation is that the emotions, imaginations, memories, and worldviews of the bureaucratic agent enter the decision-making process (Lipsky, 1980; Kaufman, 1960/2006; Langley and Mintzberg, 1995). Lipsky (1980) among others, argues that when bureaucrats implement regulations, they tend to conflate organizational goals with personal preferences and with their own interpretations of the world (cf. Winter, 2007; Vinzant and Crothers, 1998).

This leaves decision making as a highly fluid interpretative zone constituted and accomplished by what can be referred to as intra-community micro-politics (Mascarenhas-Keyes, 2001; Pulman-Jones, 2001; Shore *et al.*, 2011) and shaped by social, cultural, political, and economic dimensions that embed collaboration and its outcomes in specific structures (Fineman, 1998). According to Toda (1976), decisions are "nested", that is, decision making is chained to the probabilities and attributes of the particular situation (Toda, 1976). This means that contextual value-driven circumstances, such as sector-specific tools, rules, resources and norms, result in different selections, attributions of meaning, and normativity (Boholm *et al.*, 2013; Hammond and Brandt, 2004; Shore *et al.*, 2011). Hence, policy work and organizational decision-making structures "the outcome of compromises and balances between conflicting but perhaps equally valid considerations" (Mascarenhas-Keyes, 2001, p. 215). Accordingly, organizations operate interactively and articulate condensed and ontologically situated meanings by administrative actions aimed at negotiated decisions.

This theoretical context enables the study of administrative collaboration, problem setting, direction setting, and decision making as contextualized processes of interaction between value-driven bureaucratic circumstances and requirements and confined by emotions and socially and culturally framed commitments. At times, it may lead to disagreements on the motivations and measures for actions to be taken (Langley and Mintzberg, 1995; Vinzant and Crothers, 1998; Winter, 2007; Zinn, 2008). New institutional approaches emphasize, for example, how different conceptions of time, social and cultural norms, and symbols are formative of organizational action, generating an unfixed and unstable decision-making process (March and Olsen, 1984). Sjölander-Lindqvist and Cinque (2013) demonstrate from a study of decision making, conducted in dialogue with farmers and hunters, regarding property damage compensation in Swedish large carnivore management, that the "logic" of judgements and decisions made by the administrative agent are not only a matter of being attentive to administrative regulations but also something depending on personal values and experiences. This logic is played out when the damage inspectors from regional agencies present themselves as born and currently living locally and possessing an intuitive understanding of local interests.

The application of integrated management approaches in river restoration likely relates to the ways problem-solving administrative agents of different backgrounds and sectors actually think and conceive of the control, access, and use of material environments. As Strang (2009) claims, the interweaving of actors from various sectors is implicated in the ways formal institutions and structures influence the management and use of water resources, and the conceptual models and values various administrative unit actors apply in this process.

#### 3. Policy context: river restoration in Sweden

The insight that human activity by now permeates all processes on Earth has led to a shift in the management of natural resources towards approaches that recognize human-environmental resources as integrated and continuous (e.g. World Heritage Convention and UNESCO Biosphere Reserve Program). This is a notion central to the paradigm of sustainable development (Head, 2001). Accordingly, biophysical complexities, the economy, and socio-political dimensions should be considered in nature conservation (Johnson *et al.*, 2003).

To solve Sweden's most significant environmental problems within one generation and to promote human health, safeguard biodiversity and natural environment, preserve the cultural environment and heritage, maintain long-term ecosystem productivity, and ensure wise management of natural resources, the Swedish parliament decided in 1999 to adopt 15 Environmental Quality Objectives[1] (EQOs). To coordinate and promote consultation and cooperation in implementing the objectives, the Swedish Government decided to establish an Environmental Objectives Council as well as seven national authorities to lead the work towards a healthier and restored environment. The regional authorities, i.e. the county administrative boards (CABs), were tasked by parliament to supervise, assess, monitor, and evaluate the activities carried out to implement the 16 objectives.

The inclusion of the eighth EQO, the "flourishing lakes and streams" (FLS) objective, can be interpreted as an attempt to reduce the impacts on the natural environment caused by water regulation, hydropower, transport, development, and land use. Many aquatic environments have decreased in extent and many species living in lakes, rivers, and streams have therefore decreased in range and numbers (Environmental

Objectives Council, 2009). Around 100 freshwater-related fish and/or pearl mussel species are today deemed to be threatened by lack of, or changes in, habitats. As pointed out, human-induced activities resulting from hydropower station construction, river damming, and river alteration to allow timber floating have contributed to transforming various species' ecosystems. Human activity has also changed the composition of the ecosystems in rivers and streams by moving or introducing new plants, animals, and fish populations. Such actions can lead to new types of competition among aquatic species, genetic changes, and the spread of disease. Therefore, lakes and watercourses must, according to policy, become ecologically sustainable and their quality as habitat must improve. However, conservation and restoration should not disregard cultural assets and environments. In a national strategy for restoring watercourses, the Swedish Environmental Protection Agency, the Swedish Board of Fisheries, and the Swedish National Heritage Board (2007) express consensus regarding the need to combine efforts that protect both natural and cultural heritage resources (Naturvårdsverket, 2007).

Decisions on the restoration of watercourses are based upon a regional quality classification of water bodies reported in the "Water Information System Sweden" (WISS) database. The WISS database has been developed by the Swedish Water District Authorities and the CABs to help agencies, organizations, and people find information on water resource quality. The database, however, does not include information on the social or cultural characteristics of adjacent local environments since these are not assessed. In all, 25 per cent of the approximately 680 assessed watercourses have been classified as "worth protecting" or "particularly worth protecting" (www.viss.lansstyrelsen.se/MapPage.aspx).

Regarding the FLS objective, the Environmental Objectives Council reported in 2009 that the objective could be achieved within one generation (i.e. by 2020). However, although rivers have been remediated and many valuable waters have become protected, the Environmental Objectives Council concludes, as does the National Heritage Board, that further actions are needed to improve aquatic environments. Greater efforts are needed to step up the conservation of both natural and cultural environments, and increased attention must be paid to valuable cultural environments (see also Environmental Objectives Council, 2009; Khater *et al.*, 2012; Riksantikvarieämbetet, 2007a, b). We will examine below how these actors attempt to integrate concern for both natural and cultural heritage in river restoration by reaching collaborative agreements between agency units. But first, we address the methodology employed, which included a set of telephone interviews conducted before the study at the regional CAB level.

#### 4. Research approach

The concept of "institutional ethnography" has inspired this investigation of how the implementation of river restoration gathered professionals from different units at a mid-level regional agency level (i.e. the CABs) in southern Sweden. "Institutional ethnography" is an approach that seeks to describe and understand an organization's existence and working by exploring its organizational relationships and conceptual structures in time and space (Smith, 2001).

Ethnography, arguably, has three distinctive and sometimes related features; it can be reckoned as a particular method, as a kind of thinking, and as a narrative style (Bate, 1997). As a methodological lens for accessing a particular bounded cultural setting, ethnography has the capacity to provide "thick description" (Geertz, 1973). Geertz

(1973) said of ethnographic inquiry that the "thing to ask (is) what is getting said" and what the "import is" of the occurrence of the realities explored when entering the field of our investigations (p. 10). By collecting information, which may be sampled using different methods, the researchers "pin down facts about people" (Sobo and de Munck, 1998, p. 16), which are necessary in order to describe and understand "the multiplicity of complex conceptual structures" (Geertz, 1973, p. 9). Some define ethnography mainly as a way of describing other people's lives through observing, participating, listening and asking (Hammersley and Atkinson, 1995; Ingold, 2008; Bate, 1997). As Ingold (2008, p. 69) says, anthropology on the other hand may be considered as a frame for a "generous, comparative but nevertheless critical understanding of human being and knowing in the world we all inhabit".

This is consistent with a policy anthropology perspective, according to which the diverse beliefs, norms, and values of administrative representatives are recognized as embedding organizational action in webs of meaning (Gellner and Hirsch, 2001; Shore and Wright, 1997; Shore et al., 2011; Wedel et al., 2005). Weeks and Galunic (2003) addresses how organizations and firms are made up of individuals who carry, collectively shared, particular ideas, assumptions, values, interpretative schemata and assumptions. Policy work, then, encompasses various meanings, aspirations, and intentions of those involved and emphasizing the plurality of the policy process (cf. Geertz, 1973; Kaufman, 1960/2006; Shore et al., 2011). As addressed by Shore (2010), the task of policy anthropology is to examine practices "in work" and focus on "the conditions that create and sustain them and the kinds of relations and subjects they produce" (p. 213; cf. Geertz, 1973). Anthropological studies of policy therefore focus on how the cultural processes that occur in policy work environments serve to expose what happens inside of policy institutions. Any critical analysis of the policy process and the practices undertaken within therefore involves capturing and representing the meanings of particular situations and clarifying their conditions and unique circumstances. This requires sensitivity to the tangible and associative values of those concerned and involved, and to the circulating discourses, multiple contestations, and regimes of power enacted and confirmed within the policy field (Gibson, 2013; Hajer, 2005; Rouleau et al., 2014; Shore *et al.*, 2011).

The present study began with telephone interviews of two or three officials representing each of the units of fishery management, nature conservation, and cultural heritage management at ten Swedish CABs to survey their opinions and perspectives on the river restoration process. This step was taken to present a basis for an in-depth study at the regional level. The telephone interviews, serving as a measure to initialize the research and gaining important insight, helped me better situate the field of study and gain access. The officials were asked in these interviews to identify limitations of and opportunities for river restoration, and to discuss organizational factors that both facilitated and obstructed coordination and integration. The interviews provided general background knowledge (e.g. field-specific terminology) as well as information about bureaucratic circumstances that, by providing context, helped the implementation of later fieldwork. Pertinently, the context included insights into the tensions that arose during discussions of restorative actions by the representatives of the different units involved.

After concluding the telephone interviews, the study continued with face-to-face interviews at a CAB in southern Sweden. This authority was chosen because of a good reputation in river restoration and an interest in participating in the study. Endorsement of the project by management opened the doors but in searching for

insights nonetheless required establishing relationships and rapport with employees of the organization. The analysis of telephonic interview material resulted in a set of themes and items to explore in-depth when meeting informants in the latter study.

River restoration increasingly is becoming inclusive, and so includes collaborative, community-based as well as and cross-sectoral/intra-organizational management approaches in order to promote the integration of biological as well as social and cultural concerns in decision making (Hillman, 2009). Consequently, for reasons from theory and the results of the initial telephone interviews, river restoration was addressed as a contextualized process of interaction between individuals, authorities and social structures. Intra-organizational relations and activity were used to investigate how policy-formulated goals, bureaucratic aims, and rules established a frame for the action procedures and alternatives pursued during agency-level collaboration. This permitted the investigation of how exclusive interests and objectives associated with river restoration were construed, understood, and negotiated in practice. This relational focus is in line with Erickson's findings from a study of education in which individuals in a bounded setting who had differing expectations and beliefs would communicate in terms of mediation as well as resistance (Erickson, 1986).

Fieldwork at the CAB was carried out between 2010 and 2012 and consisted of individual and group interviews with officials from the fishery management and cultural heritage management units. Interviews lasted between one and two hours and followed an open-ended, semi-structured guide so as to allow the informants to expand on themes of particular interest and the researcher to follow up on issues raised the dialogue. The themes of the interview guide covered various aspects of river restoration, including questions about the administrative process and collaborative work, and how officials dealt with the task of integrating diverse environmental interests in remaking riparian landscapes, and the experience of factors that could facilitate or hinder the protection of both natural and cultural resources. In addition to interviews, public information meetings on river restoration projects were observed as were archaeological investigatory walks along rivers and streams, conducted by the CAB to map historical remains in the vicinity of the rivers and streams in the county. These activities together with informal discussions helped develop an understanding of the informants' intentions and the meanings of policy work interaction.

As outlined above, a general goal of ethnographic research is to become familiar with the realities of a bounded cultural setting in order to describe it and proceed with analysis. This involves speaking with people about their way of perceiving events and, as in the case here, their ideas and understandings of work routines as well as more exceptional and unusual occurrences (de Munck, 1998). These research carried out were therefore reviewed and analysed from the perspective of field-specific perceptions, that is policy life as lived and interpreted by the administrators at the CAB. The essences of informants' narratives were captured and, when similar themes appeared, these were grouped and examined against the insights gained from previous research and theory (see e.g. Saldana, 2009/2013). This step allowed the development of a case-based explanation of the collaborative processes taking place intra-organizationally, including the role of tacit processes, ideologies, and power relationships (Colebatch *et al.*, 2010; de Munck and Sobo, 1998; Fangen, 2005).

#### 5. CAB perspectives on river restoration

As outlined, the telephone interviews were conducted to explore fishery, nature conservation and cultural heritage professionals' experiences and views of reconciling different sets of environmental interests. The results indicate that the officials from the different interviewed departments and units at the ten investigated CABs prioritized matters differently depending on their profession and on how they experienced a need not only to demarcate and sustain sector-scientific and professional boundaries in internal collaboration but also regarding environmental values. As one interviewed heritage professional put it:

Someone said at a meeting that there's no need to preserve more than one watercourse with timber floating remains; then I said that it would be enough to have only one watercourse protected to safeguard the pearl mussel. The meeting climate turned immediately hostile. That was beyond comparison, they said. It seems like when you do something that is interpreted as "positive" for the environment, then it's completely positive and there are no other considerations that should or could be raised.

The analysis of the telephone interviews also made clear that praxis and routines for decision making and decision implementation on river restoration are flexible and informal, and that the cultural heritage sections (CHS) at the CABs seldom take restoration initiatives. The informants describe how the various administrative frameworks of the involved units of fishery, nature conservation, and cultural heritage, building on diversified aims, norms, and rules, govern decision making on river restoration. Instead of the fishery and nature conservation units perceiving the CHS as a party to involve on equal terms in the decision-making process, they seem – according to interviewed professionals – to construe the CHS as a body that can submit a proposed measure for consideration but not really become involved in selecting valuable rivers to be restored. They described the multiple regulations and steering documents governing and informing the activities of the various sections as constituting a problem in advancing collaboration at the agency level. Whereas the fishery and nature conservation interests in river restoration are directed by policy goals, the CHS's mandate is determined mainly by legislation directing the heritage professionals to work towards safeguarding remains and environments of prehistoric to recent industrial origin. Another aspect affecting collaboration is financial resources, which in most cases are allotted by the fishery and nature conservation units.

To deal with these various dimensions, many informants mentioned the need to develop intra-organizational collaborative approaches to fit within existing institutional and regulatory arrangements. Through such routines, it was understood that heritage colleagues could become involved in choosing rivers to restore, competing understandings of water and riparian environments could be reconciled, and the policy process could be directed towards establishing cross-sectoral consensus. In the next section, we turn to the regional level to explore one such initiative.

#### 6. Working across unit boundaries at the regional agency level

As a consequence of the FLS objective, the Fishery Section (FS) and the CHS of the examined southern Swedish CAB find themselves working across the boundaries of their units, largely initiated by the governmental decision to use EQOs to promote environmental health and ecological enhancement.

Swedish river restoration

#### IOE 6.1 Standardizing work relationships

Apart from informal discussions taking place in corridors and at lunch breaks, the seeking of mutually acceptable outcomes, or organizational existence, is coming into being through texts (Smith, 2001). In 2008, the FS decided to formalize collaboration across agency units through establishing a formalized collaborative routine. This was done to assist in achieving consensus on which rivers and streams, or parts of watercourses, should be restored to allow for the migration, recovery, and further spread of various species while preserving cultural artefacts and milieus. The collaborative routine describes the organization of the work for restorative measures, run by the FS and the Coordinator for Wetland Management (at the CAB), and the organization of the consultation with the CHS. The routine is employed as a standard operating procedure to accomplish organizational work (Feldman, 2000), enabling the agency to organize expertise and exercise power efficiently (Feldman and Pentland, 2003). The routine describes phases of the decision-making process in which the concerned sections should collaborate, how to organize the collaboration, and the role of the relationship between the CHS and the FS in advancing the preparations for river restoration. The activities set forth in the routine standardize local work relationships involved in describing when and how cultural heritage issues are to be handled in a river restoration activity, as well as what waterways are to be considered for restorative intervention. Emerging from the problem of reducing the difficulty of integrating concerns for the two sets of environmental interests involved in the management process, the collaboration routine forms a "ruling relationship" chart explaining the orders of relationships involved in achieving formulated goals (Smith, 2001). This interrogation of the implementation of the routine brings one closer to an understanding of how polices "work"; objectifying the policy that workers use and understanding the routines, provides insight into the deeper codes and principles ordering policy work (Shore, 2010).

In identifying what rivers and streams to work on, the FS and the CHS meet, usually once a year, to "first of all, define the priorities". As explained by a fishery professional, "the meeting is an opportunity to decide whether the stone in the river hindering fish from migrating is natural or something created by human hands". The participating heritage professionals considered such matters too narrow in that the meeting deals only with priorities and "general stuff". They would like to be presented with more details regarding the planned restoration process itself. As one heritage professional explained, "a detailed plan" regarding the technological intervention the fishery professionals regarded as necessary to re-establish the river's ecosystem is needed in order to "judge how the intervention would affect cultural heritage professionals find it difficult to participate in the prioritization or to make their voices, and their justifications for standpoints, heard. They therefore have difficulty upholding the regulation calling for the protection of the cultural environment.

#### 6.2 Clashing values

As discussed, one basic and nationally agreed-on requirement in river restoration refers to protecting both natural and cultural heritage. The differing motives and goals for managerial roles by the various agency units challenge this requirement, and contrast "the formal neatness of the instrumental model of policy" (Shore, 2010, p. 214) with the idea of policy as a process run by bounded rationality (March, 1997; Simon, 1987). The implementation of the collaborative routine, resulting at the outset

4.3

from different protective concerns mobilized by governmental action (Hillman, 2009; Howard and Papayannis, 2007; Olwig and Loewenthal, 2006), disputes this understanding of policy. In line with Shore (2010) and Shore *et al.* (2011), the policy work undertaken in the implementation of the routine and collaborative work at the unit level carries themes of different and disputed meanings that challenge policy work at the level of the CAB.

One such theme, or nexus of values, refers to the humankind – environment link and how to assess the material quality value of the water bodies' immediate as well as more extended environments. One example is the discussions between unit representatives from different academic and policy sectors at the implementation level, about what components need to be removed to improve what the fishery unit workers refer to as "the natural functioning of rivers and streams". Here the process of working across the organizational and policy boundaries of fishery, nature conservation, and cultural heritage concerns notions of "the material basis for and expression of human and environmental regeneration" (Strang, 2004, p. 367).

In the dialogue over river restoration, we also encounter a temporality theme regarding the various parties' images of the past, present, and future and how they construe the role of society in nature conservation. Turning to the FS professionals at the CAB, we find that they conceive river restoration as a technologically based practice with the intention of "removing what we consider unnatural hindrances, caused by human impact, to the ecological functions of the rivers" and thus a measure to "come as close to the original function of the waterways as possible". The CHS responds by justifying how river restoration constitutes an activity "that may hinder our ability to reconnect with history". When the FS bureaucrats describe their job as "returning the landscape to as it was thousands of years ago" and restoring a "natural and original landscape", the CHS bureaucrats refer the "importance of safeguarding people's right to history and humans as enriching the landscape". When the FS bureaucrats argue that "a watermill isn't part of the original and very ancient landscape but the fish are", they base their reasoning on the understanding that the suggested restoration is about, as one of them explained, "coming as close as possible to the original function of the water resource".

This illustrates how the river restoration policy is embedded in a wider system of thought with mythical, symbolic and political connotations (Shore and Wright, 1997). From the outset, restoration has been understood by the FS as an activity located in deep history and ecological enhancement as an activity aiming to recreate the "natural state" of the environment before human presence and influence. The present environment, accordingly, is unbalanced, dysfunctional, and disturbed in contrast to that of an imagined and idealized past. For the CHS, the past – basically anything and everything until yesterday – is human history and any remains potentially constitute cultural artefacts and remnants. Their role, they say, is to protect peoples' right to their history. They justify their reasoning in the negotiation process by referring to the regulatorily sanctioned motives for preserving ancient monuments: "Any damage to a built or constructed artefact that has been classified as an "ancient monument" can lead to imprisonment; this is what we have to take into consideration in dealing with restorative actions". In response, the FS believes that disagreement and integration failure is partly due to the CHS unwillingness "to cooperate with us". One of them mentioned how "the dialogue

has shown that they are not very interested in talking with us", and that the CHS must "realize the importance of cooperating instead of stubbornly focusing on single issues".

#### 6.3 Lack of knowledge

Another dimension of the working-across process refers to what officials at both units describe as a lack of knowledge, making it difficult to negotiate and agree on priorities. According to both CHS and FS professionals, the process is obstructed by the lack of knowledge about the potential presence of ancient remains and other valuable heritage artefacts in the riverine landscape. According to the FS professionals, they need the expertise of the CHS since, as one of them explained, "I'm not an archaeologist, I feel uncertain and might not see the remains when I'm in the field". The CHS explains that it is "lagging behind because we don't know everything we need to know in order to take our part in the discussion", which may partly be explained by the fact that only ecological quality dimensions are being assessed and reported in the WISS database. Therefore, there is no information on the social and cultural characteristics of adjacent local environments for the FS to consider when planning river restoration. This knowledge, as argued by all the parties, is required in order to proceed with ecological restoration but is necessary in order to minimize and prevent conflicts due to insufficient knowledge on the part of any one of the involved interests.

The CHS decided that it had to systematically reconstitute its position in the process and find ways to measure the value of, for example, mill foundations, dam walls, floating channels, remains of saw mills, and old bridges. In fact, the county contains at least 20,000 ancient remains ranging in origin from the Neolithic Age to the Middle Ages, and many more remains are unknown or only rumoured. Therefore, CHS has developed a cultural heritage assessment model to advance its position in the decisionmaking process. The investigation was undertaken by studying historic maps, investigating the riverine landscape in person, and age-defining discovered and rediscovered remains. By documenting and systematizing the remains and cultural environments found according to the regulatorily prescribed values (ranging from architectonical value and social-historical value to rarity, authenticity, quality, and pedagogical value), the CHS felt that it could participate in the negotiation on more equal terms. The CHS explained that building knowledge about the cultural environment and individual remains made it easier to argue against, or simply to refrain from expressing an opinion regarding, a river under discussion for restoration, when the riverine area did not represent any particular and important historical or cultural value.

Under such circumstances, negotiation and adjudication become significant elements in creating consistent and agreed-on decisions (Pressman and Wildawsky, 1984). This leaves decision making in administrative settings as a cooperative activity imbued with conceptual, methodological, and practical (arbitrary) challenges when an integrated concern for both the social and biophysical dimensions of priority making and decision work are to be addressed (Catsadorakis, 2007; Hillman, 2009; Johnson *et al.*, 2003; Khater *et al.*, 2012).

#### 7. Conclusions

The restoration of rivers materializes government-inspired measures and gives rise to a series of interfaces between various professionals through which they work across

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organizational and policy boundaries. This nested character of the preparations for river restoration has been highlighted through an ethnographic approach that includes document analysis, interviews and participant observations.

Recalling how river restoration should consider the social and cultural meanings of the rivers (Dedering *et al.*, 2006; Riksantikvarieämbetet, 2007) and result in "a river and an associated landscape, in which barriers and the accompanying isolation no longer put constraints on the free movement and dispersion of typical species" (Pedroli *et al.*, 2002, p. 7), we encounter concerned agency actors immersed in a situation of facilitating and legitimizing authority and political decisions. As a matter of "organizing the multiple", the river restoration policy provides an order imposed by power and the operational activity of construction (Foucault, 1977). Following Shore (2010), this justifies the power of the holders of authority and their actions. Nevertheless, even if recognized in political steering documents and policy as integrated biophysical and socio-cultural complexes, the concerned administrative sections will rally over reasons and motivations for either improving the natural functions of water resources or preserving remains that bear witness to past human activity.

One such implication refers to timescale. When studying and considering policy work as lived and interpreted, the dimension of time evolves as a potentially critical variable that can destabilize policy work and the implementation of policy goals (Stoffle *et al.*, 2013). Arguments for specific actions may display time horizons that differ according to divergent understandings of science, epistemological premises, values and value priorities. If the goals of policy are to achieved, such divergent conceptions need to be discussed, occasionally disputed and balanced collectively in the intraorganizational working process.

From desktop to practical application, policy concepts become imbued with specific and concrete content and the different sectors' goals and values become obvious and pronounced. Despite consensus on the level of national policy as well as compromises and agreement on the measures to be implemented to realize the FLS objective, the results of this study reveal how compromise and agreement may be difficult to achieve in practice since each concerned administrative unit has its own sets of criteria concerning what constitutes valid or valuable knowledge of aspects relating to river restoration (cf. Hillman, 2009; Karlsson, 2010).

The exploration of the administrative and organizing process preceding the carrying out of restorative action highlights how rivers involve and mobilize multiple understandings of the human-environment link *vis-à-vis* state-initiated engagements with water. Discussion of what to remove or not to remove from rivers and streams reveals a pluralistically informed renegotiation process in which government-inspired measures aiming to enhance ecological integrity and viability are to be put into effect. This study illustrates how the policy process is informed politically and regulatorily but is also guided by sector-specific norms, values, and differently construed ideas of temporality and heritage and vividly expressed by individual policy workers. Seemingly, the Weberian ideal of bureaucracy in which social relationships are depersonalized has failed (Weber, 1978).

We have seen how restoration activity exposes contrasting ideas of the past, present, and future among the two administrative parties involved in negotiation at the regional level. These ideas and images are concomitant with how water bodies are tied to local history, collective memory, and knowledge, and how people, through using water resources, establish meaning-building relationships with one another (Bohlin,

2007; Donahue and Johnston, 1998; Kaplan, 2011; Limbert, 2001; Schama, 1995; Sjölander-Lindqvist, 2005; Strang, 2004). The preparations for the ecological restoration of waterways, building on the coordination of different sets of protective concerns and mobilized in response to the interactions taking place in achieving policy goals are, as phrased by Strang, "the result of specific social, spatial, economic and political arrangements, cosmological and religious beliefs, knowledges and material culture, as well as ecological constraints and opportunities" (Strang, 2004, p. 5). These arrangements, or different frameworks of meaning and rationales of action, are mobilized and continually performed and contested in everyday policy work. In the prioritization and decision-making processes, the conditions of the rivers and streams, aquatic species, and cultural environments of the water bodies all appear as dimensions driving the realization of ecological and social sustainability. As a process intended to reconstruct the riverine landscape – one with great material and social complexity – according to specific policy visions and values of those with decision-making power as well as other concerned parties, restoration activity is embedded in a complex framework of competing conceptual models and structural arrangements that arises from the realities of the social and political environment (Strang, 2009).

The FS and the CHS realized that they had to find ways to integrate their environmental concerns. The collaborative routine established to provide standardized and stabilized organizational performance (Pentland and Feldman, 2005) inspired new and altered interaction within the agency studied. As such, the new routine gave rise to redefined organizational behaviour (Noordegraaf, 2010) in terms of the relationships between units; that is, how and when the different units should coordinate their interests in achieving the goals formulated in the FLS objective. This resulted ultimately in the CHS's decision to invest in a model with which to systemize the assessment of water environments. The results of this study illustrate how lack of knowledge affects collaboration, how the policy process is informed by sector-specific rules and norms for organizational conduct, and how the professions in their discussions and interaction concerning the issue of river restoration uphold, demarcate, and negotiate what knowledge and interests should take centre stage in the decision-making process. This paper reveals that policy as well as policy work can never be neutral as it is politically agreed upon. Policies have "social lives of their own" (Appadurai, 1986). This is why it is important to explore bureaucratic phenomena as socially and culturally embedded when analysing policy processes and collaborative work that occurs within and between organizations. The interactions taking place in the implementation of policy emanate from not always compatible complexes of ideas, and hence there is a need for the exploration of the interacting, multiple conditions and dynamics surrounding the implementation of political decisions.

#### Note

1. Complemented in 2005 with a 16th EQO on biodiversity.

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