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Participatory Checking and the Temporality of Landscapes: Increasing Trust and Relevance in Qualitative Research

Camilla Årlin, Lowe Börjeson, and Wilhelm Östberg

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Abstract and Keywords

Developmental narratives are commonly constructed through statements on directions and drivers of ongoing change. In the process, however, heterogeneous realities and historical trajectories become manicured and truncated due to temporal short-sightedness, misinformation, and the creation of clear-cut categorizations. Based on historical, geographical, and anthropological research on landscape change in East Africa from the nineteenth century to the present, this chapter examines how different types of historical data sources (maps, photographs, remote sensing data, written and oral accounts, as well as the landscape itself) can be used to both interrogate and improve the rigour of narratives that frame concerns for development and conservation. We describe methods of interaction with members of the researched communities over these various data bodies, and summarize this process as 'participatory checking'. While the focus of this chapter is on landscape change the participatory research methods described are equally relevant to other topics and disciplines.

Keywords: Landscape change, participatory checking, member checking, participatory research methods, historical data, Tanzania

Introduction

Debates and narratives of development inherently relate to the past, be it the last season or last millennia, against which change is documented, assumed, or anticipated. Hence, the past is being used and does in fundamental ways structure development narratives (see introductory chapter in this volume). In studies of local resource use strategies and land-use change, articulations of the past vary from clearly defined specific time periods or moments, to vague and unhistorical statements about 'traditional' practices or situations. This chapter will demonstrate the utility of a couple of methods that we summarize as 'participatory checking', especially where research is designed to have a positive impact on the communities that play host to research projects. Our case studies are taken from landscape change research but are equally relevant to other topics and disciplines.

Used consciously, with attention to specific circumstances, narratives and representations of the past can become powerful artefacts, which give voice to local agency (e.g. Fairhead and Leach, 1996). Establishing 'rigour' and 'trustworthiness' in scientific accounts of the past should thus be a primary concern, not least for research that aims to be policy relevant. 'Rigour' refers to conventional criteria for evaluating quantitative research and is achieved when a study is considered valid, reliable, and objective. In qualitative research 'trustworthiness' takes on a similar significance. It refers to research findings that are 'believable' and 'worth taking account of' (Baxter and Eyles, 1997: 506; Lincoln and Guba, 1985: 290). Trustworthiness implies 'socially sanctioned credibility' and does not necessarily build on 'claims to truth based on corresponding reference to an independent reality' (Demeritt and Dyer, 2002: 238), but rather on 'the appearance of being fair and impersonal' (Porter, 1995: 8).

An obvious point of departure for a discussion on methodologies for any kind of landscape change research is of course

the landscape itself. The physical landscape (and its representations) offers a tangible and concrete manifestation of the complexities of temporal and spatial relations that historical studies are faced with. Tim Ingold argues that:

[m]eaning is there to be discovered in the landscape, if only we know how to attend to it. Every feature, then, is a potential clue, a key to meaning rather than a vehicle for carrying it.

(Ingold, 2000: 208)

Generations have dwelled in the landscape, performing their tasks, and 'left there something of themselves' (Ingold, 2000: 189). Discussing how landscape forms emerge in the process, Ingold writes that if 'we recognise a man's gait in the pattern of his footprints, it is not because the gait preceded the footprints and was "inscribed" in them, but because both the gait and the prints arose within the movement of the man's walking' (2000: 198–199). The landscape, as Ingold observantly points out, is a 'taskscape'. In this chapter we propose a methodological approach for how researchers may 'attend to' past taskscapes in a responsible and productive way.

To be usable, however, the past must be made communicable and debatable. It can be represented as 'historical artefacts' (e.g. books, articles, pamphlets, maps, posters, photographs, diagrams, landscape features, material objects, etc.) (cf. Latour, 2005: 71; Tsouvalis and Waterton, 2012: 116). Informants' narratives about landscape features or representations of landscapes can be solicited, interrogated, and cross-examined, and practices in landscapes observed. This can be done through walks together with local informants documenting evidence of physical, historical, ritual, economic, and social activities, in group discussions and meetings as well as in more regular interviews. Hence, it is in dialogue with people living in and using landscape resources that Ingold's insight can be operationalized.

Taking our experiences from fieldwork in rural landscapes in Tanzania as a basis, we discuss three types of artefacts that can be used to facilitate a process of 'participatory checking': (1) *research results* (summarized and popularized in pamphlets, drawings, and diagrams), (2) *alien representations of landscapes* (maps and images produced by outsiders that informants are not familiar with), and (3) *familiar landscape features* (the material landscape itself and pictorial representations of landscapes).

Methodologies for Generating 'Usable Pasts': Examples from Landscape Change Research in Africa

Taking African landscapes as an example, a number of studies have been published since the 1980s that by including a genuine historical perspective on contemporary environmental issues have enriched our capacity to understand dynamics of landscape change and its implications for conservation and development concerns (e.g. Richards, 1985; Tiffen et al., 1994; Fairhead and Leach, 1996; McCann, 1999; Maddox, 2006).

A typical trait of studies that have made an impact on development and conservation discourses since the 1990s is that they have, in combination with written and oral sources, successfully weaved historical narratives around images. This has both added rigour to landscape change studies and facilitated communication of research findings. The most basic and commonly used method is to analyse images of the same landscape from different points in time. This can be done either by comparing aerial photographs or satellite images over an area (Fairhead and Leach, 1996), or by so-called 'repeat photography' where places shown on historical landscape photos are identified and revisited to take new photographs and study changes (Tiffen et al., 1994; Rohde and Hoffman, 2010). If places depicted cannot be identified precisely, the content of historical landscape photographs, or photorealistic drawings, can still be interpreted and used in dialogue with informants if the landscape and location depicted, and the historical context of the photograph, is known (see discussion later in this chapter).

A more rarely used historical source material in an African context is historical maps. Researchers' scepticism of using historical (read: colonial) maps is understandable. Maps are indeed challenging representations to work with (Harley, 1989), but maps do contain valuable information and can, if used critically, be useful, both in dialogue with informants and as a complement to images in assessments of local and regional landscape changes. Finally, with the increasing availability of high resolution satellite imagery since the 2000s, new opportunities for participatory mapping and interviews, e.g. participatory GIS (Dunn, 2007), have emerged. A critical point here is that the clarity and detail of such images make it possible for inhabitants of the landscapes depicted to identify features and make imaginary travels in the images.

When historical maps, photographs, or other landscape representations are brought to the field and shared with local

communities an important methodological step is taken: they become points of interactions, 'clues', or artefacts that can be contested. As we argue in the next section, this is a critical step in making the past usable. The same is of course true for material features of investigated taskscape, like for instance material culture and artefacts that are generated by or in collaboration with informants, e.g. sketch-maps, time-lines, or other types of artefacts.

Participatory Checking: A Methodological Framework for Improving Trustworthiness in Participatory Research Approaches

One conventional and authoritative methodological technique of establishing rigour in qualitative research is to triangulate data: i.e. to combine different bodies of data and methods so that they add breadth and complexity to an inquiry. Triangulation does not in itself, however, imply that each body of data or method used is reliable; triangulation of biased or misconceived data offers no improvement to research quality. Cho and Trent (2006) provide an overview of the pros and cons of triangulation, and argue in favour of including 'member checking' as a tool to check preliminary results and increase validity (see also Cresswell and Miller, 2000; Baxter and Eyles, 1997; Lincoln and Guba, 1985, 2000). Together, these studies point to a rather consistent appeal for a more frequent use of member checking techniques to establish rigour in qualitative research as an important complement to triangulation.

Member checking or respondent validation, which is another term that is frequently used, refers to a research process to test data, analytic categories, and interpretations, and is undertaken together with those that provided the information in interviews and group discussions. The purpose is to increase validity, relevance, and credibility, i.e. trustworthiness. Member checking is commonly understood as the testing of preliminary results, but can also occur reflexively throughout the process of inquiry (Cho and Trent, 2006: 322), and thus has a lot in common with the 'participatory research' tradition of development studies (Chambers, 1997; Mikkelsen, 2005; Brydon-Miller et al., 2011; Tsouvalis and Waterton, 2012). In fact, the power of participatory methods lies in the way that it sets processes of member checking at the heart of research agendas—even if this has not been explicitly articulated as 'member checking' or equivalent terms in the reporting of participatory research. Triangulation remains a key technique, but additional dimensions are invited when local informants actively participate in the research process and evaluate the results. Participatory methods do not only aim at extracting information from informants but also build knowledge in a reciprocal process. New familiarity, detail, involvement, and competence appear. More voices are added.

Click to view larger

Figure 1 The participatory checking framework

Severe criticism has been directed against participatory techniques (e.g. Cooke and Kothari, 2001; Chilvers, 2009). The participatory tool-box (decision trees, mapping and ranking exercises, transect walks, Venn diagrams, work calendars, etc.) is often sloppily applied, particularly in development work, and where insufficient time is allowed for genuine reflection or dissent. It has also been noted that participation exercises tend to see communities as homogeneous and static, thereby disregarding conflicting interests and needs, and that the public nature of participation exercises will tend to confirm established patterns and knowledge at the expense of what is messy and marginal. While these and other shortcomings of participatory approaches need to be addressed, there is no reason to despair. Researchers can do better than consultants on quick missions for development agencies. Fig. 1 highlights the critical role of member

checking in relation to triangulation and participatory research methods.

In a recent review and discussion of participatory research and its scientific usefulness, Tsouvalis and Waterton (2012) argue in favour of building participation on critical social science theory. The framework of ‘participatory checking’ presented here in a similar way highlights the usefulness of participatory research that is both critically alert and theoretically grounded. Our emphasis on the usefulness of including historical artefacts in interviews as a way to perform ‘checking’, can be compared with methodological approaches based on ‘hybrid collectives’ (cf. Callon and Law, 1995), where also things and not only people participate. However, while hybrid collectives are usually based on long-term relationships between researchers and informants (Tsouvalis and Waterton, 2012: 112), participatory checking offers a methodological approach that does not require a long-term commitment by the informants, which makes it flexible and adaptable to a multitude of research contexts.

Arguments for Using Member Checking in Qualitative Research

In contrast to triangulation, or the use of multiple methods, member checking is not only a matter of finding corroboratory, contrasting, or falsifying, material, but to check to what extent researchers and informants understand each other, and how they relate to the inquiry. Member checking thus helps to reduce risks of misinterpretation during interviews and surveys. The notorious distinction between ‘us’ and ‘them’ becomes slightly less distinct as researchers and informants engage in joint endeavours and come to share some of the responsibility for a study.

A counter-argument would be that when the distinction between researchers and informants breaks down, the desired test of data no longer takes place. However, this threat is more apparent than real. The point with member checking is firstly to establish if informants find the results ‘fair’ (Lincoln and Guba, 1985: 315) even if they may not agree with all details. But equally important, we argue, is that through reporting back, comments are generated that in turn will influence the inquiry (Seale, 1999: 72). Since the emphasis is on interaction, we move away from merely ‘checking the facts’ into a field of reflexive inquiry which is transactional. Truth becomes something negotiated, gradual, and processual as the respective agendas of informants and researchers are continuously negotiated. To some extent this will happen in any interview, but usually implicitly and without being problematized. Through participatory checking those aspects of the research process that may not be consciously acknowledged rise more easily towards the surface, and can be incorporated into the analysis.

This also means acknowledging that we are dealing with representations, not ‘reality’ itself. In this view, method is a key to trustworthiness rather than a straight route to truthfulness (Demeritt and Dyer, 2002: 238). Taking a pragmatic standpoint that seeks to avoid claims to both absolute truth and relativism, ‘being fair’ is a quality of research that has epistemological dimensions, as well as ethical. Researchers gain trustworthy results if methods are respected as fair (i.e. findings are not merely seen as fruits of the investigators’ own biases, creativity, and impulses) by both informants and the scientific community.

What Techniques Are Most Commonly Used to Build Rigour and Trust in Research: Member Checking, Triangulation, or Participatory Methods?

In a review of what strategies geographers during the late 1980s and early 1990s used to establish ‘rigour’ in qualitative research, Baxter and Eyles (1997: 511) found that of 31 empirical papers only three mentioned that respondents were contacted to verify findings. As a follow-up to this survey, we have—using advanced search criteria in Google Scholar—tried to capture to what extent member checking, triangulation, and participatory approaches have been used since the late 1990s in the disciplines that this book targets (Table 1).

Table 1 Hits in Google Scholar (1997–2012) for selected keywords related to practices of member checking, participatory methods, and triangulation. Numbers are given as percentages of the total number of hits.

Subject	Total hits	Triangulation	Participatory	Participant	Member checking	Reporting back
Human geography	36,300	6.9	22	24	0.3	0.3
Human ecology	27,600	4.4	29	29	0.5	0.2
Environmental history	21,800	1.9	12	11	0.1	0.1
Political ecology	17,200	3.3	38	21	0.1	0.2
Historical ecology	7,530	1.2	6	5	0.0	0.0
Archaeology	184,000	2.1	5	9	0.1	0.2
Indigenous archaeology	769	1.3	11	12	0.0	0.1
Applied archaeology	479	0.6	13	12	0.0	0.0
Cultural anthropology	36,900	4.9	18	41	0.5	0.3
Development studies	165,000	2.2	11	10	0.1	0.1
Sociology	700,200	2.5	7	15	0.5	0.2

The results of the Google Scholar search presented in Table 1 show a very clear pattern.¹ While there is only a modest variation between disciplines, the difference between the methodological keywords is striking and confirms the conclusion by Baxter and Eyles (1997), Cho and Trent (2006), and others. Member checking techniques are for a wide range of disciplines not part of normal methodological practice at least if this is defined as a purposeful articulation of the terms member checking, respondent validation, reporting back, or verification by respondents. Triangulation is, in comparison, a much more established and common technique. The high scores for ‘participatory’ and ‘participant’ indicate that there is scope for a more concerted engagement with member checking processes in qualitative research. The interest in participatory research methods is there, but researchers do not seem to include active checking procedures in their research. Here we suggest methods that can allow for this.

Participatory checking will almost inevitably make research more relevant and trustworthy to local communities (cf. Seale, 1999: 72). This is a crucial dimension, not least in places where research is thought of as a ‘dirty word’ (Smith, 2012), i.e. historically linked to colonial exercise of power and racist ideas. As interview-based research must relate to local opinion and values of informants, using participatory checking in one form or the other is sensible. Voices that are commonly silenced can be heard. However, it also needs to be noted that the other side of increased involvement is that research results are more easily contested. While this is partly the point with the process, it also means that decisions will have to be taken on what interpretations are to be endorsed for different contexts, and indeed what is finally to be published—who has the final say. A further consequence can be increased friction in local communities as various local groupings may use the research to champion their particular causes. Researchers need to be aware that they initiate processes that can have far-reaching consequences and prepare strategies for tackling such situations (Mohan, 2008: 48f.).

The most obvious and efficient means to accomplish participatory checking is to use some kind of artefacts as shared points of reference in interviews and discussions with informants. In our examples in the next section we show how different types of artefacts, representing different aspects of both past and ongoing landscape change, can be used to facilitate participatory checking.

Participatory Checking Using Local Language Booklets

In a research programme on 'Man-land interactions in semi-arid central Tanzania', jointly run by the Institute of Resource Assessment at the University of Dar es Salaam and the School of Geography at Stockholm University (Mung'ong'o et al., 2004), we produced booklets summarizing provisional research results in Swahili. These were distributed in the areas where research was conducted. The pamphlets were discussed at village level seminars to scrutinize the findings, to formulate the next steps in the research process but also to help the researchers to move outside their own preconceived frameworks, which of course had influenced how we had sought information. Through the village seminars we hoped to generate exchanges of ideas not introduced by ourselves, and thus come closer to spontaneous local discourses (Lassiter, 2005). Here we briefly summarize experiences from one of the research areas, Goima Division in Kondoa District, Tanzania.

Apart from the initial intention to report results back to the communities, we soon also realized the value of the pamphlets as a medium for wider outreach. In particular, young people who had heard about the booklets asked for copies. Others who read them with an eager interest were schoolteachers and members of staff in the district and divisional offices. Although they would have access to the research results through our normal publications, they definitely preferred the popularized local language booklets.

[Click to view larger](#)

Figure 2 Residents of Madaha village, Kondoa District, Tanzania, reading a Swahili booklet presenting research results from their area

Villagers received the booklets almost solemnly (Fig. 2). The first page was turned slowly and carefully. People read with great concentration, some with considerable effort. Books passed between hands. It was the photographs that in the first place attracted interest. People commented as persons and places were recognized in the pictures, pointing out different details to each other.

For the elderly some of the publications brought back memories of times gone. The Swahili booklets were appreciated as documenting local oral history. Paskali Saki remarked: 'It is the children that have strength. They will read. We *know* the history, but we will pass away, while they remain.'

Checking Findings and Debating a Theory of Soil Formation

An indigenous theory of how soils form, change, and erode had been documented among the Burunge, a Cushitic-speaking people living in Goima Division (Östberg, 1995: 93–116). A series of village seminars were held to check facts and to test if people could recognize and accept a drawing showing the principal elements of their theory of soils. One of the meetings was with a group of elders in a village where we had not worked before. We wanted to learn the views of informants who had not been involved in previous discussions on the topic. The elders enthusiastically entered into a detailed debate of the different aspects of the Burunge theory of soils. They confirmed the general proposition of the model, that 'land has life' and soil has the capacity to rise towards the surface, but added that this ability (*nguvo*, strength,

power in Swahili) is like breathing. In the soil below, at about three metres' depth, there is heat, which pushes the soil upwards. The land breathes out. 'It is like the vapour you see rising from the land after rains.' This heat from below contributes to crop growth as it meets the coldness of the rains. Two things are needed for crop growth: heat from below rising upwards and the coldness of the falling rain. To the description that we had previously recorded of Burunge perceptions of how soils behave—the result of a conventional ethnographic field study—these elders added another dimension: temperature.

When participants held different views people accepted these as complementary statements rather than entering into polemics. What mattered most to us was that the concepts and reasoning inherent in the model turned out to be both intelligible and familiar. Our interpretation and representation of Burunge soil science made sense to people in the area, although many were conversant also with the standard description of soil formation and erosion.

The Pamphlets as Usable Historical Artefacts

Concluding a village seminar where we had presented diagrams on social stratification in two villages as well as a Swahili booklet describing the development of land use in recent decades, Salim Suter, a relatively affluent farmer and local trader, said that

Some of these things have not been good to hear. People in other places will read it, and this is painful to us. It is not good that they read about the poverty of people, or how the forest resource is being squandered. But what you have said is true. This cannot be denied. As far as I am concerned, I say, that you may write these things even if they hurt us. It is on us to change what is not good.

Such comments can be interpreted as evidence that the booklets had, at least initially, heightened people's awareness of current changes in their area. Not that they did not know. But the pamphlets provided a reason to talk to each other about what happened.

The discussions on changes in the area did not so much bring up new facts for us researchers as allow us to hear them from a different angle. We were not interviewing, but listening to people telling each other what they found particularly important. There was no particular reason why they should bring up these themes—except that they found them important or that they disagreed with us. The roles had changed. We did not stage the interaction between researchers and informants as unequivocally between clear-cut roles as often happens during interviews. The initiative was no longer so clearly in our hands. The relative intensity by which different groups of people reacted to different issues of their choice became important new data. We were brought at least one step closer to real life, while still having the advantage of encircling topics important to the research programme.

The mode of relating to the contents of the Swahili booklets reflected that knowledge is not only something 'out there' that researchers pick up like a precious gemstone. It is also, and more importantly, something produced, which is dependent on context, and which increases in reliability when exchanged. Knowledge turns out to be dialectical, and imperfect. The real test of our findings came when they were exchanged locally. Incidentally, this casts doubt on how agencies request knowledge that is consistent, packaged, and ready for use; to be 'applied', as people in the development industry often say. Even outright technical research, say specifications for fertilizer applications or designs of contour ridges, cannot escape that context matters and that negotiated knowledge is in many cases more relevant than authoritative instructions.

Using 'Alien' Historical Artefacts to Elicit Discussion on Local Oral History

[T]he parts of the brain that process visual information are evolutionarily older than the parts that process verbal information. Thus images evoke deeper elements of human consciousness than do words; exchanges based on words alone utilize less of the brain's capacity than do exchanges in which the brain is processing images as well as words. These may be some of the reasons the photo elicitation interview seems like not simply an interview process that elicits more information, but rather one that evokes a different kind of information.

(Harper, 2002: 13)

Historical artefacts such as archival documents, photographs, landscape drawings in rare books, and maps seldom

surface in the areas they depict. Rather, they commonly remain distanced and alien to the present-day inhabitants of those places. If such artefacts are at all used, it is often within networks of researchers. When this alien 'archival knowledge' meets 'local knowledge' it is often in a book and in the form of academic triangulation and analysis. But, as the quote from Harper suggests, images carry meanings and clues to past landscapes that may not be possible to reach through other means. This section draws on the same methodological principle as studies using photo elicitation and exemplifies how historical photographs, drawings, and maps can be used for participatory checking.

Confronting Local Oral Histories

In a study of the historical geography of the Iraqw intensive farming system in northern Tanzania a strong local belief that the Iraqw community had developed under siege from surrounding Maasai communities was challenged. Before the results of the investigation were published (Börjeson, 2004) they were summarized in a small booklet in Swahili, which included photorealistic landscape drawings and photographs of the area by early German travellers. With these pictures of the area from the late nineteenth to early twentieth centuries as starting points, the key findings of the study was presented at a meeting with local elders cum historians (people with a local reputation for being knowledgeable about the area) and other villagers. All were men.

The general view of the elders was that the Iraqw were confined to their historical heartland, *Iraqw'ar Da/aw*, during the late nineteenth and early twentieth centuries, while the core argument of the booklet was that a much larger area than the Iraqw heartland was settled and farmed by Iraqw communities at that period. When presented with the research findings, the local historians' first reaction was that this was wrong and misinformed. However, as the historical pictures clearly showed settlements and farming in areas outside the heartland, these prompted lively discussions at the meeting. When discussions had come to an end, the spokesmen of the meeting declared that it was indeed possible that areas outside the heartland were settled at this time. The reason given was the strong powers and military skill of the Iraqw leaders needed to defend the Iraqw community from hostilities and cattle raids. With this conclusion it was possible for the participants at the meeting to somehow reconcile the pictures of Iraqw settlement outside the historical heartland with their own knowledge about Iraqw settlement history. Their discussion of the landscape evidence shown in the pictures, however, still suggested that they had not fully accepted our research finding: the critical comments were too obvious. We had received local critique, but not total rejection of the findings presented. The point with participatory checking is to find out if research results are intelligible and meaningful, not to get blanket confirmation of them.

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Figure 3 Baumann's depiction of the Ufiome mountain in 1891
(Baumann, 1894)

In a second case (Årlin, 2011) there was a discrepancy between a late nineteenth-century depiction of the Ufiome mountain in present-day Babati District, north-central Tanzania (see Fig. 3), and the perception held by many of those interviewed. Bringing the image along to interviews opened up discussions of the different visions of what Ufiome had looked like 'in the past'; 'the past' now having possible multiple shapes. The historical picture shows a mountain with grassy slopes in 1891, while the common understanding among informants was that the mountain slopes had always been covered with dense forest. The 'alien' artefact thus presented the possibility that change in land cover had occurred, and it was agreed that the local historical image of a forested mountain is one that is more associated with the early to mid-twentieth century. This insight provided for a whole new avenue of discussion that followed: Why did this occur? What were the drivers behind this change? Was the historical picture the result of only viewing the mountain from one side? If so, what does this say about the German travellers' account of the Ufiome landscape? The discussion went much further than the interviews previously conducted. Land cover change became an issue of debate among the informants. Some came back to our next meeting already charged with issues they wanted to discuss. The alien historical artefacts had thus

provided the grounds to re-think things that previously did not have to be re-thought at all.

Using Historical Maps

Another example of how alien artefacts may be used for participatory checking concerns the use of historical maps in the field. These may be alien both in the sense that they are an abstract and unfamiliar way of depicting the local environment. They may also be alien in the very real sense of depicting the landscape where people live, but with different names or composition of land-use and vegetation cover than what is known to the people who live there today (Årlin, 2011). Bringing maps into the field may also provoke strong reactions, especially if local communities lack resources to critically examine such 'evidence' and where their own representations are landmark based rather than quantified and gridded. Using maps often means entering a highly politicized field, not least if the maps are produced by a colonial power or foreign nation. But, the information contained in historical maps may also, despite uncertainties and biases, be valuable as entry points for participatory checking procedures. Another methodological option is to triangulate and compare information held in historical maps with other types of 'alien' data sources such as archaeological reports, palaeoenvironmental records, and remote sensing data (Börjeson, 2009; Årlin, 2011).

In Dialogue with the Taskscape: Situated Landscape Interviews

Woven like a tapestry from the lives of its inhabitants, the land is not so much a stage for the enactment of history, or a surface on which it is inscribed, as history congealed.

(Ingold, 2000: 150)

Ingold argues that the landscape is a 'taskscape' of activities, e.g. movement and practices of work: '*... the landscape as a whole must likewise be understood as the taskscape in its embodied form: a pattern of activities "collapsed" into an array of features*' (2000: 198, emphasis in the original). The landscape is a constantly transforming entity, but there are also solid forms in the landscape that take on a more durable character, i.e. features that remain after the activities that created them have ended. From a methodological point of view the idea of a 'taskscape' implies that the landscape may not only be considered an object of study, but also as a method for inquiry about the historical, social, and lived (or immaterial) dimensions of the taskscape. Embodied knowledge, i.e. practical knowledge and experiences, come to surface in the taskscape. The material forms of a landscape are extensions of the hands and minds (meaning and memories) of its inhabitants. Involving the physical features of taskscapes in interviews is thereby a way to reach for both the material and immaterial dimensions of past activities and work procedures. By consciously including landscape features as artefacts in interview situations—be it arable fields, trees, irrigation canals, field boundaries, terraces, woodlots, houses or any discrete site or feature that locate and situate practical, symbolic, or historical significance—researchers and informants are provided with shared points of reference for participatory checking.

A number of other methods share a similar methodological principle, e.g. participatory mapping and so-called 'go-along' interviews or transect walks, whereby interviews are combined with walking together with informants in a taskscape (Carpiano, 2009; Chapin et al., 2005; Ingold and Vergunst, 2008). Different types of participatory mapping approaches will, however, imply different kinds of engagement with the taskscape. We will briefly mention three different approaches.

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Figure 4 Agricultural landscape of a ridge in Hhay Geay, Kwermusl, Iraqw'ar Da/aw. The highest point of the ridge is in the south-eastern part of the map. The location of houses follows the crest of the ridge.

Mapping by Lowe Börjeson and Deogratus Hillu in February and March 1996, and in March 1998.

Mapping is an interpretative process. In detailed participatory landscape mapping, situated interviews are combined with a detailed mapping of landscape features, to document and analyse spatial and temporal dimensions of a taskscape (Börjeson, 2004). Fig. 4 gives an example of a detailed map of a ridge in Kwermusl village, *Iraqw'ar Da/aw*, Manyara District, Tanzania. In this case the process of mapping contributed to a historical and geographical analysis of agricultural intensification and how that process was supported by incremental accumulation of 'landesque capital' (see the next subsection) (Börjeson, 2007). Second, participatory GIS, or methods using high resolution images or aerial photographs in dialogue with informants, have gained in popularity with the increased availability and accessibility of satellite images (Duncan et al., 2010; Dunn, 2007). It differs from the approach discussed earlier as it relies on a bird's eye image of the landscape instead of the landscape itself, as a shared reference point. Image-based participatory mapping methods, however, offer the possibility to situate interviews in relation to features and places in the landscape by identifying these on the image, thus economizing on time spent on walking and transportation between places of interest, even if an unavoidable limitation is that interviews are not actually performed within a taskscape. Finally, setting remotely sensed images and geometries aside, sketch-mapping (mapping without geometries and distances according to a defined scale), directly on the ground, or on paper, is a widely used strategy to unleash clues as to how the environment carries meaning, how it is conceptualized and categorized locally. Here the engagement with the taskscape is again different, as specific material landscape forms no longer provide shared reference points. Instead focus lies on narrative representations of the taskscape.

Landesque Capital: A Key to Participatory Checking in a Taskscape

In studies where the temporal dimensions of an agricultural landscape are of interest, it is important to pay attention to enduring landscape features or landesque capital. Such features offer important analytical, practical, and concrete reference points for participatory checking. As defined by Blaikie and Brookfield (1987: 9) landesque capital is 'any investment in land with an anticipated life beyond that of the present crop, or crop cycle'. It commonly refers to physical landscape elements that improve agricultural productivity (terraces, drainage and irrigation channels, stonewalls, etc.) or anthropogenic soils (cf. Brookfield, 2001; Håkansson and Widgren, 2014). A more inclusive and integrated conception of landesque capital would also include management of vegetation and biodiversity (e.g. trees and forests) or 'field systems as a whole' (Brookfield, 2001: 184; Börjeson, 2014; cf. Arroyo-Kalin, this volume). The concept of landesque capital has primarily been used in archaeological and historical studies of intensively cultivated landscapes, but issues addressed by this concept such as farmers' work processes and investments are indeed central to studies of agrarian change more broadly (Börjeson, 2014).

As enduring investments, landesque capital captures the quintessence of past taskscapes (cf. Doolittle, this volume). When using such features as anchor points in situated landscape interviews, embodied, social, and material dimensions

collapse as stories and stated facts blend with hands-on illustrations of practices, identification of physical details and anomalies, landmarks, and temporal contexts. By the same process the researcher develops her/his own familiarity with the investigated landscape. Through the research process the landscape transforms into a 'taskscape'. Not the same taskscape as held by informants, but there are shapes, shared experiences, and 'checked' understandings where informants and researchers meet. The question of how an agricultural terrace is formed provides a case in point. Not all terraces are built structures. Most are partially or predominantly formed also by slow incremental processes, e.g. downslope sediment movement combined with piecemeal repetitive work tasks performed by farmers (cf. Doolittle, 1984, 2001, and in this volume; Börjeson, 2007; Stump, 2006; Davies, 2014). Understanding such slow processes requires a close understanding of the actual physical form and its underlying labour and landscape processes. Participatory checking through situated landscape interviews will in most cases heighten the investigator's sensitivity to processes that are not readily observable and thus deepen understandings of agricultural landscape change.

Using the Past in the Present: Implications for Applied Research

Participatory checking can help to moderate two major dilemmas in field research: the 'us/them' and the 'now/then' distinctions. We have discussed how participatory checking can help to create more of a common language and understanding between researchers and informants. Similarly it also helps to create more common ground on what is implied with historical references like 'before', 'earlier', 'in the old days', etc.

We have discussed how various artefacts can be used as tools to create common discursive rooms where field researchers and informants can meet. Artefacts help researchers and informants to find common ground, avoid abstract reasoning, and thus reduce the risks of misinterpretation (in all aspects of the word). The more they produce together (maps, diagrams, seminars, and interpretations of photographs, landscape features, and satellite imagery, etc.), the greater the chances are to discover when languages differ and where uncertainties occur. The method is anything but new. In criminal investigations it is well known how useful it is to take a suspect back to the scene of the crime. The possibilities to check details, pose follow-up questions, and to stimulate memories improve greatly. Likewise, when informants interpret a photograph, for instance, they start just there, and the field researcher stands in a better position to follow the informants' thinking compared to when more abstract questions are asked, and when many external circumstances will influence how the informant receives and processes questions. Historical artefacts need not only be relics. Contemporary objects may be just as useful as starting points for historical inquiries.

If successful, participatory checking increases the chances that research can be of use to local communities and that the final write-ups will be readable and relevant to more audiences than only the researchers' immediate colleagues; it is 'a purposeful social invitation in which the participants, especially people living at the margin of society, determine the images of themselves that they wish to become public' (Cho and Trent, 2006: 336).

Checking: On Whose Terms?

The researcher is exploitative in relation to his/her field area. But so are informants in relationship to the researchers. They participate to gain contacts and fringe benefits. There is something fundamentally equal in that informants and field researchers both have personal motives for their undertakings. The more open and fair we can be about this, the easier it will be to make research useful to both sides—and the better will the quality grow.

It is generally held in social science that informants have a right to anonymity. In many countries this can be important when they risk being badgered by authorities or by influential people because of their involvement with research producing results that may not be appealing to the powers that be. This must of course be seriously considered. But our experience is that the opposite situation is also common. Researchers get substantial help from communities and individuals without duly acknowledging how crucial these inputs have been. All researchers are careful to refer to the published sources they have used but when they tap local expertise this is often anonymized as 'male elder' or 'woman in her late 50s'. Did the researchers visit a zoo? Why are the thoughts of a metropolitan colleague acknowledged with year and page while the knowledge of informants cum local experts is not recognized by name and date? A prerequisite is of course that informants are asked if they accept being quoted or cited with name, and that they can realistically judge what it may entail to appear in a research publication. Distributing popularized reports in the informants' own language, to informants, field assistants, and others with an interest in the research prior to the final reporting, will, in addition to the aspects discussed before, also give an idea of how the research findings will be presented and may help informants to

judge how they feel about appearing in such contexts.

Participatory checking can be used both to improve the quality of the research process and to contribute to social change. This chapter has discussed the first aspect primarily, but also hinted that it is often difficult to draw a line between the two. Many researchers working in Africa have found themselves talking on behalf of the area where they have worked and the people living there. They want to help out and perhaps also direct development interventions to 'their' area; to 'give voice to people otherwise not heard'. The intentions are the best, but without active involvement of those directly concerned the risk of reproducing old hierarchical, even colonial, narratives and relationships increases (Smith, 2012). Participatory checking provides at least some mitigation in this quandary (cf. Bradshaw, 2001).

Any scholar needs to scrutinize the power relations she or he participates in and ask: 'who benefits?' It is obvious that the researchers benefit since the quality of their work is enhanced. They can also get informal credit for being democratic and committed. But, they also have a responsibility to reflect on the benefits that informants receive from their contributions. Even if research results may not yield substantial benefits or improvements to the lives of those participating, it is an essential component of participatory research to act in a responsible and reciprocal way towards informants. In this chapter we have argued in favour of sharing research material with informants to stimulate critical discussions on trustworthiness, rigour, and usefulness of landscape change research. The reasons are simple: it is fair, and at the same time good research economy.

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Notes:

(¹) The searches were done in Google Scholar as this allowed us to search full texts and a broad range of texts, and not just abstracts. A total of 15 different keywords were searched, but not all have been included in the table since the result of these searches yielded insignificant proportions or were simply redundant to the keywords included in the table. The searches were performed on 7–8 May 2012 using the formula 'discipline' and 'keyword' in the advanced search settings.

Camilla Årlin

Camilla Årlin is a researcher at the Department of Human Geography, Stockholm University. She has written *Becoming Wilderness - A topological study of Tarangire, Northern Tanzania*. Her main research interests include animal geography, landscape research, and natural resource management in both Sweden and East Africa.

Lowe Börjeson

Lowe Börjeson is a Lecturer at the Department of Human Geography, Stockholm University. He has written *A History under Siege. Intensive Agriculture in the Mbulu Highlands, Tanzania, 19th Century to the Present* (Almqvist & Wiksell International, 2004). His

research is concerned with historical and current processes of landscape and agricultural change in different localities in Africa. He is engaged in a number of interdisciplinary research projects and has published articles on agricultural landscape change at both local and regional scales.

Wilhelm Östberg

Wilhelm Östberg is an Associate Professor in Social Anthropology and affiliated researcher at the Department of Human Geography, Stockholm University. He is a former co-editor in chief of *Ethnos*, *Journal of Anthropology*. His books include *The Kondoa Transformation. Coming to Grips with Soil Erosion in Central Tanzania* (Scandinavian Institute of African Studies, 1986) and *Land is Coming Up. The Burunge of Central Tanzania and Their Environments* (Stockholm University, 1995). He has published articles on natural resource management in East Africa and on traditional African art.