Social Interaction

Video-Based Studies of Human Sociality

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Code-Switching, Embodiment and Object Status in Heritage Environments:

Demonstrating a Neolithic Quern During a Guided Tour

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Antje Wilton

Freie Universität Berlin

Abstract

The paper presents an analysis of a demonstration of a Neolithic quern in which code-switching and embodied actions are employed to interactionally construct the status of the object and the reference to both past and present realities. The data show how participants of a guided tour engage with these realities by treating the quern as accessory, exhibit and prop to connect experiences in the present with the realities of life in the Neolithic past. The demonstration as part of the guided tour does not merely provide a simulation of the past, but also an approximation of it through verbal and bodily means.

Keywords: object status, heritage environment, pastness, code-switching, embodiment

1. Introduction

How do people engage with the past in their spatial and material environment through their interactions? The excerpt reported on in this paper is part of a larger data set of a project exploring how people socially interact in and with an environment that is characterized by *pastness*, that is, with architectural structures and objects that have been created and used by a society that is no longer existent or that have been remodeled in the present according to archaeological evidence. People use such environments and their material infrastructure to evoke the past in engaging with them (Holtorf, 2013). The project draws on three theoretical traditions and fields of investigation which share an interest in the engagement with space and its materiality as a socially, institutionally and educationally relevant dimension. These fields are social interaction research, archaeology and museum studies.

The data excerpt shows a short section of a guided tour in a Neolithic house model under construction. The excerpt features two related aspects that characterize this particular part of the guided tour as a demonstration: first, the excerpt shows how the status of object of the demonstration, a Neolithic quern, changes during the interaction from an object to view and discuss to an animated object in use, being treated by participants in different ways according to the type of ongoing activity (Pitsch, 2012). Second, the embodied demonstration of the quern by the guide is structured by code-switches from near-standard German to local Swabian dialect. In the following, I will discuss how these aspects emerge, relate and function in the interaction between participants and the heritage environment. Finally, I will propose a framework based on Clark's (2016) and Gibbons' (2003) concepts of different levels of realities to integrate linguistic and embodied strategies of referencing the past in interaction.

2. Theoretical Background: Archaeology, Architecture and Interactional Space

In the study reported here, a historical or *heritage environment* is defined as a physical setting of any size that is situated within the context of human habitation and thus includes architecture built for purposes of social activity and an assemblage of objects that represent past human activity (Braden, 2019: xv), including original, modified and recreated structures. Recreated (historicized) historical environments are defined as environments that are modern creations based on research data from archaeology, ethnology and related disciplines as well as on (artistic) imagination for the purpose of institutional interpretation (Braden, 2019: xv). The material properties of such environments are able to evoke the past, both in a general sense through visual features such as patina or decay (Holtorf, 2013; Riegl, 1982), and in a more specific sense through indexing a particular point, period or event in the past. As such, these environments are said to possess *pastness*, that is "the quality of being of the past" (Holtorf, 2013:

432) which is "the result of a particular perception or experience" (Holtorf ,2013: 431).

Such perceptions of pastness might be accompanied by a recognition of *unfamiliarity* with (parts of) the object or environment and their customary uses. The focus of multimodal space-based interaction studies so far has been on contemporary architecturally modified spaces (Hausendorf et al., 2016). Such spaces are already manifestations of culturally transmitted and sedimented interactional orientations, that is, the design of the spaces reflects cultural practices of designing, appropriating, and using space in the accomplishment of social interactional aims. Users of such spaces are more or less familiar with those orientations that a space offers (Hausendorf & Schmitt, 2016: 28). For many architectural structures of the more distant or even prehistoric past, such as monuments in the landscape and historical buildings and objects, this familiarity can be largely absent. The society that designed and used these environments is no longer observable and no longer available for the transmission of the knowledge of how to behave in a particular architectural space (Schutz, 1967: 211). Thus, any past function of an environment—or the originally intended placement and use of an object within that space—and the types of social interactions that were realized in that space might only be partially perspicuous to a modern user whose social topographical knowledge of how to interact in particular architectural spaces (Hausendorf & Schmitt, 2016) is shaped by modern space usage.

The problem of the modern lens leads to the question of how users of such sites arrive at interpretations of how a particular space was used in the past, as manifested in reconstructed heritage environments. Reconstructions are based on archaeological data and, as such, constitute an essential visual mode for presenting and explaining data in archaeology. As the archaeologist Stefanie Moser writes: "Reconstructions have an important role in archaeological discourse in the sense that they incorporate the construction of inferences about past human behaviour" (1993: 76). In archaeological reconstructions, those inferences are shaped by social and cultural assumptions about the uses of space and objects in a past period. The further back in time we go, the more fragmentary is the evidence: "[w]hile we can always get to know our consociates and our contemporaries better, this is not true in the same sense of our knowledge of our predecessors. Their experiences are over and done with, and we can get to know them better only in the sense of picking up more information about them" (Schutz, 1967: 211). Therefore, imagination and artistic creativity are highly relevant in the visual modelling of sites and objects, as "every attempt to engage with the past and to transform this distant, indefinite entity into narrative, requires both knowledge and imagination" (Savani & Thompson, 2019: 221). As such, reconstructions constitute an interesting intermediary between original artefacts that were created by our predecessors and objects created by people in the present: reconstructions are modelled on a past object but in most cases are created by contemporaries of the people engaging with those objects in the

present (Goodwin, 2018: 250). The modern making of an object modelled on a past design thereby adds a layer of perception and interpretation that influences the way people in the present approach, interpret and engage with such objects.

2.1 Institutional setting: displaying and explaining buildings, sites and artefacts

In a typical museum context, the design of the space provides clues as to what is meant to be prominent and therefore is a venue to approach and appropriate. Kesselheim's (2016) analysis of interaction in a museum shows how rooms in a museum are designed primarily for visual experiences through the use of materials such as glass, the positioning and accessibility of objects and the use of light. Similar to texts providing cues to their readability, architecture constitutes an ensemble of usability cues which impact on social interaction that is situated within that architectural space (Hausendorf & Kesselheim, 2016).

Architecturally, there are typical ways of presenting an object for distant observation: its position within a showcase, behind a cordoned-off area that indicates non-accessibility, or by positioning the object in a location that under normal circumstances is inaccessible, such as the ceiling of a room. All these positions physically withdraw the object from the observer's sensual exploration and enforce a primarily visual approach to the object.

Creating a distance between the object and the observer can be intentional, for instance, to stress or create its "strangeness". Such experiences of displacement disturb the observer's perspective and stimulate interest in, and reflection on, the nature and possibly the use of an object (Nittel, 2000: 221). Therefore, they can be seen as one way of provoking an educational experience (Nettke, 2014: 127). This is particularly relevant in a historical environment where showing discrepancies and familiarities with objects and environments stimulates visitors' sense-making on the basis of usability cues that are (as yet) unfamiliar.

Typically, museum contexts create a distance between observer and object through architectural and spatial means, such as glass showcases and barriers of different kinds that protect displays. Such arrangements clearly focus on a visual exploration of the objects (Kesselheim, 2012: 190). The observer is not given the opportunity to instantiate the usability cues that can be identified for an object—the object remains uninstantiated and can only be appropriated through visual examination, verbal explication, or demonstration. An embodied experience of the object is only possible in ways that allow the observer to position themself in particular ways towards an object for the purpose of seeing it. As visibility is not an inherent property of an object, its arrangement as an object to be (only) viewed instantiates social interactional practices of viewing or looking that involve the position of the object, the active positioning of the body, talk and gesture (Heath & vom Lehn, 2004; vom Lehn et al., 2001). Thus, visitors in a museum or at a historical site engage in a repertoire of looking practices that draw on the spatial affordances and social relationships relevant in that particular

context. In guided tours, the institutional distribution of access to spaces and objects becomes enacted in situations in which the guide is allowed to handle and demonstrate objects or access areas that remain out of reach for the visitors (Jorro et al., 2017: 278).

The guided tour, a form of institutional interaction employed in museums and at visitor attractions, is an established and well-known communicative genre with typical features of interactional participation (Costa & Müller-Jaquier, 2010) characterized by a division of interactional roles which include a person guiding and a group of people who are guided. This division is supported by an asymmetric distribution of institutional power, authority and knowledge which enables the guide to take up a dominant position vis-à-vis the group. This dominance is not only evident in the asymmetric epistemic status (Heritage, 2013), that is, in the fact that the guide knows—or is supposed to know—more than the group about the objects of interest (Mondada, 2013), but also in the way the interaction is situated in the particular environment. In addition to being authorized to handle and use objects and to access otherwise restricted areas, the guide decides where to stop, when to move on, and how the group is expected to position themselves towards a focal point (Broth & Mondada, 2013; Mondada 2017). This dominant institutional position puts the guide in the role of a mediator between the present activity of the guided tour and the past as its topical focus.

Video-based studies of guided tours in museum education, conversation analysis and social interaction research have revealed the distinctive interactional features of the genre (Nettke, 2014), the interactional accomplishment of the sequential organization of a guided tour (De Stefani, 2010; Kesselheim, 2010; Mondada, 2017) and the interactional negotiation of participant roles and authority (De Stefani & Mondada, 2017). A guided tour is an obvious example of spatially embodied interaction in which a particular relationship between the environment and the interaction is instantiated. Guided tours are a complex multiactivity (Mondada, 2017: 221) with specific requirements for the situational anchoring (Hausendorf, 2013) of interaction. Participants in guided tours are not only sensitive to their spatial environment when coordinating their interaction, but the spatial and material environment is also an integral part of the activity by providing focal points for mutual attention, reflection and appropriation. Participants use deictic and iconic gestures to accompany talk about an object in a space as invitations for and realizations of shared attention and interpretation (Kesselheim, 2010; Ravetto 2010). Thus, they use linguistic as well as visual resources in an embodied way to reference space and its properties in interaction. The ways in which such focal points are integrated and dealt with in the sequential interaction of a guided tour affects the degree to which usability cues in the environment can be read, interpreted and instantiated by the participants.

A guided tour in a heritage environment, therefore, is one of those forms of interaction in which a modern appropriation as an understanding of past uses of spaces and objects is enacted. It contains all three aspects of situational

anchoring: *co-orientation*, *co-ordination* and *co-operation* (Hausendorf, 2013), while the heritage environment offers incentives to actively engage with usability cues that are potentially unfamiliar. The guide may, to varying degrees, offer interpretations of the uses of artefacts and spaces, and these interpretations will be enacted in the sense that they are produced in a social interactional as well as a spatial architectural context.

3. Methodology and Data

The study presented here is a qualitative study with a selected group of people and uses video-based interaction analysis as an observational approach documenting the process of people moving through and interacting in a heritage environment (Wegner, 2018; Nettke, 2014). The architectural environment consists of a Neolithic house model under construction on the grounds of a World Heritage Site which is in the process of being turned into an archaeological park. Participants' consent for filming was obtained in written form prior to the recording. The architecture of the house was documented by a series of photographs that were taken immediately before the guided tour took place. The tour itself was filmed using a Sony Alpha 7 II camera with external microphone, with the person filming keeping a distance to the group so that, ideally, most of the group was visible at all times. The sections were then transcribed using the GAT2 transcription system (Selting et al., 2011) complemented by the additional conventions for the transcription of multimodal activity as developed by Mondada (2016; 2018). For the purpose of this study, a transcription of coarse granularity was chosen that records relevant gesture and gaze but not their detailed trajectories. The final database consists of three subsets: a) a set of photographs, b) the video recordings and c) the transcripts.

4. Analysis

4.1 The setting: A Neolithic house model

In order to investigate the interactional potential of the space that will constitute the environment of the guided tour, a preliminary analysis of the environment is based on photographs taken prior to the guided tour. The aim is to describe features that suggest interactional implications for particular uses of that space in the context of a guided tour, such as likely spaces for assembly, focal points for viewing and spaces and objects for handling and using.

Figure 1. *Front of house*

Figure 2. *Main room*

Figure 3. *Main room with table and quernstone to the left*

The images show the house model in an advanced state of being built, with some of the walls not yet daubed and the floor still untreated. Size, materiality and details of construction are the result of choices based on archaeological data available on the remains of Neolithic houses found at the location and in the wider area. The internal layout comprises two rooms, the larger of which is located at the back. Replicas of Neolithic objects are placed on a trestle table set against the unfinished wall as well as spread around the room, suggesting an attempt to create coherent arrangements that illustrate plausible domestic activities. The space is devoid of any interpretive infrastructure or "museale Attribute" (Pitsch, 2012: 241), such as panels and labels that might contain information on the status

and potential use of the objects. One of the objects placed on the floor of the larger room is a quernstone with a runner stone, a container for grain next to it and a fur rug spread in front of it (Figure 3). This specific arrangement suggests several interpretations based on its affordances:

- creating the impression of an authentic Neolithic scene in which the protagonist has only just or temporarily returned to resume their task,
- signaling the possibility of using the object in situ, not just viewing it.

Thus, the arrangement of the quern is ambiguous in terms of its affordances and the object's status within the interaction: it could be meant as an accessory to give credence to the house as depicting an authentic Neolithic scene, it could serve as an exhibit to be viewed by the visitors, or it could be used as a tool or prop, either in a demonstration by the guide or in a hands-on activity by the visitors. The following extract shows how the quern is interactionally made to be each of these things in turn (Pitsch, 2012; Nevile et al., 2014).

4.2 Demonstrating a Neolithic quern

Figure 4 shows the participants in the guided tour as they assemble in front of the house and provides the ID codes used to refer to them in the transcript.

Figure 4. *Participants and guide with their codes used in the transcript*

In the extract discussed here, the group has moved into the larger of the two rooms and positioned themselves in a circle, with the guide standing in front of

the trestle table. The extract covers the sequence of the guided tour in which the guide explains and demonstrates the use of the quern.

>>Video clip only available in the online version of the paper<<

In the following, I will introduce each section of the sequence and summarize the main observations for each.

In the first section (lines 01–06), the guide turns to the quern as a new focus of attention and gives background information on the archaeological finds, which include a number of quernstones.

Extract 1. *Lines 01-06*

```
(01) GUI:    +‡(0.5) mer ham+ ne getrEIdemühle hier drin,
             we have a quern in here

             +RH points at quernstone+
             ‡looks at quernstone---------------------->
(02) GUI:    +(1.0) was man hier au etliche(s) gefunden &hat,+
             of which they found a lot here, too

             +walks towards quernstone---------------------+
             ---------------------------------------------->
      pa5                                          &walks away->
(03)         %+(es waren)+  +um die ‡ACHzig+‡ sowas die man hier
             about eighty here

             +LH points up+ +turns to group+
             ------------------->‡looks up‡‡looks down------->
      pa5    from quernstone to new position at table----------------&
(04)         in der siedlung-&‡
             in the settlement

             --------------->‡
      pa5    --------------->&
(05)         +‡(--) zum teil nur in fragMENten+ gefunden #hat;‡
             partly only found in fragments

             +rotates both hands sev times---+
             ‡looks up at sev in turn-----------------------‡
      fig                                          #fig 1
```


figure 1

```
(06)         +‡net so VOLLständig,+
             not as complete

             +moves both hands down+
             ‡looks down---------->
```

As the guide introduces the quern as a new focus of attention, he accompanies his deictic expression (*hier drin*, line 01) with a pointing gesture and starts to walk towards the object. This requires PA5, who has been standing right above the object, to move away to allow the guide access to the quern (lines 02–03).

While the guide moves to position himself behind the arrangement, he elaborates on the archaeological record in the Neolithic village and the state of the quernstones found there.

In the second section (lines 07–10), the guide prepares for the demonstration of the quern by kneeling down but interrupts his explanation with personal comments about the difficulty of the kneeling movement:

Extract 2. *Lines 7–10*

```
(07)        +normalerweise ein-+
            usually a

            +downward movement towards kneeling+
            ------------------->

(08)        +<<acc> a::h jetzt muss i schon wieder (NOIgle)-+#
            ((in dialect) now I have to kneel down again

            +kneels down, LH for support on table---+
            -------------------------------------->
   fig                                                   #fig 2
```

figure 2

```
(09)        +[han i] heut morge au scho MIEssa;>+
            had to do that this morning already)

            +completes kneeling with a small sway+
            ----------------------------------->

   PA2:     [<<pp> hehe>]
   gui      ------------>

(10) PA3:   <<pp>hmhm,>
   gui      ---------->
```

In line 07, the guide starts a kneeling movement to lower himself into the position from which the object can be used according to its original function of grinding cereal. Accompanying this bodily action is a self-interruption followed by a switch from the previously used near-standard variety of Swabian German to the full dialect (line 08).

In Section 3 (lines 11–23)), the guide commences the demonstration of the quern with accompanying explanations, which are marked by a switch back into the near-standard variety:

Extract 3. *Lines 11–23*

```
(11) GUI:    +ein GROßer stein als+ +Unterlieger,+
             a big stone as the base

             +removes runner from base+ +RH moves flat above base+
             ----------------------------------->
(12)         [der] +stAbil+ LIEGT,
             that lies firmly

                   +pointing movement with both hands towards base+
             ------------------>
     PA3:    [<<pp>hmhm,>]
(13)         +und dann ein kleinerer stein als+ (.)+LÄU#fer ‡da drauf;+‡
             and a smaller stone as a runner on top

             +RH picks up runner+              +RH puts runner on base+
             ------------------------------->‡            ‡looks up--‡
     fig                                             #fig 3
```

figure 3

```
(14)         +(1.0)+
     gui     +RH picks up grains+
     gui     ‡looks down->
(15) GUI:    +das getrEIde kommt da dazWIschen,+
             the grain goes in between here

             +RH puts grain on base------------+
             --------------------------------->
(16)         +(0.25)

             +both hands move runner on base back and forth->
     gui     ----->
(17) GUI:    und dann kommt DIEse bewegung;
             and then comes this movement

             ---------------------------->
             ---------------------------->
(18)         ((rhythmic scraping sound for 5.0))+

     gui     -------------------------------->+
     gui     -------------------------------->
(19) GUI:    +und das ganze net+‡ ‡bloß aus +de ARme raus,+
             and not only from the arms

             +straightens up----+          +slaps side of thighs+
             ----------------->‡ ‡looks up--------------->
(20)         sondern auch aus den □+SCHENkeln raus.=+‡
             but also from the thighs

                                 +touches sides of thighs with both hands+
             ------------------------------------->
     pa6                         □takes photo----->
(21) PA3:    =hmhm,‡
     gui     ----->‡

     pa6     ----->
(22)         +‡(1.0)
     gui     +picks up runner with both hands and continues movement->
     gui     ‡looks down------------------------------------------->
     pa6     ------>
(23) GUI:    dass man (wirklich) mit dem GANzen körper□ vor und zurück geht.
             that you really go back and forth with the whole body

             ------------------------------------------------------------>
             ------------------------------------------------------------>
     pa6     ---------------------------------------->□
```

The guide demonstrates the use of the quern in a step-by-step procedure, with the steps clearly marked by slow and deliberate movements indicating the plane of the base (line 11), the runner stone and its position on the base (line 13), the addition of the grains (line 15) and finally the rhythmic grinding movement (lines 16–19, 22). Aligned with the movements are explanations in an equally deliberate manner, as reflected in the intonational stress pattern of the corresponding utterances (lines 11–17).

In the final section (lines 24–32), the guide and group members re-engage with each other verbally again, discussing the strenuousness of the grinding activity and its bodily effects. The discussion is initiated by a comment by PA4:

Extract 4. *Lines 24–32*

```
(24) PA4:   brauchsch kei @FITnessstu+‡ +‡dio.
            (in dialect) you don't need a gym

     pa4                    @puts hand on hips--------------------------------->
     gui  ----------------------->+   +straightens up & puts hands on hips->
     gui  ----------------------->‡   ‡looks up--------------------------->
(25) GUI:   bitte?
            pardon?

            ------>
            ------>
     pa4    ------>
(26) PA4:   braucht mer kein #✦FITnessstudio.=✦
            (in dialect) one doesn't need a gym

            -------------------------------->
     gui    -------------------------------->
     gui    -------------------------------->
     pa2                    ✦looks at pa4-->✦
     fig                    #fig 4
```

figure 4

```
(27) PA2:   =hehehehe
            ✦looks at gui->>
(28) GUI:   +‡NOI,+ ‡
            ((in dialect) no

            +shakes head, puts hands down+
            ‡looks down‡
(29)        ‡aber ma siehts naher an de +KNUI,+
            but you can see it later on your knees)

                                        +moves both hands inwards+
            ‡looks at pa4
(30) PA4:   +‡[an de @KNUI@ ja;=]+
            on your knees yes

                    @nods@
     SEV:     [((laughter for 1,5 sek))]
     gui    +RH picks up container+
     gui    ‡looks down---------->
(31) PA3:   =deshalb des schöne FELL;
            therefore the nice fur

     gui    ------------------------>
(32) GUI:   des kann man dann FESTstellen (danAch);
            you can see that afterwards

     gui    ------------------------>>
```

PA4 comments with a remark about the strenuousness of the activity (lines 24 and 26). He uses the local Swabian dialect for his comment, thereby connecting it to the guide's previous remark on the kneeling movement. Like the guide, he foregrounds the bodily effects of the activity as strenuous and exhausting by comparing it to a modern gym. The guide's response to PA4's comment

continues the exchange in the local Swabian dialect, once again focusing on the bodily effects of the activity on his own body, such as sore knees (line 29), which is acknowledged by PA4 (line 30) with a confirmatory repetition of the guide's comment. The sequence ends with common laughter among the group (line 30) and a comment by PA3 in near-standard German, recognizing the function of the fur in front of the quern as a useful protection against sore knees. The guide's final remark (line 32) is slightly vague, but likely refers to checking the state of one's knees after kneeling.

4.3 Analysis: the relationship between verbal and embodied actions

Taking a closer look at the relationship between verbal and embodied actions, the following observations can be made:

- The quern changes its object status in the course of the tour according to the sequential realization of different actions by the guide. The changes in object status are an interactive accomplishment which enables both the embodied as well as the reflective engagement with the past as a secondary reality.

- The demonstration of the quern is framed by code-switches that foreground personal embodied experience. As this personal experience becomes shared, participants show engagement with the implications of the demonstrated activity for past communities/users.

The sequential organization of the demonstration aligns verbal and embodied actions that relate to the material object used in the activity of grinding cereal with a quern, as well as to the personal embodied experience of the guide. Related to the sequential structure of the interaction is the status of the object of the demonstration: its status changes from accessory to exhibit to prop (Pitsch, 2012); as an accessory, it provides a plausible background to the guided tour contributing to an atmosphere of past domestic activity. It is oriented to by participants only in that it constitutes a physical feature of the room that can be perceived, but also ignored. This is evident by PA5's initial position (see Fig 5 taken during an earlier part of the guided tour) almost within or above the arrangement of the quern: it demonstrates her interpretation of the object as an accessory, without any anticipation yet visible of it becoming a focus of attention later. Her position does not seem to be a problem for the guide, who does not indicate, for instance, by asking her to move, that the quern will become a focus of attention later on.

Figure 5. *PA5 standing on the sheepskin with her right foot touching the quernstone*

From line 02 onwards, the quern becomes an exhibit, as foregrounded in the guided tour. It now serves as a visual focus and a focus of attention of the whole group, requiring participants to rearrange themselves. This is typical of guided tours in environments in which it is not immediately clear which of the environment's features will serve as focal points and in what order (Mondada, 2017). The guide's verbal explanations about the find context establish the object as a typical household item of the past community, which justifies its inclusion in the furnishings of the house model as well as its newly established role as an exhibit and focal point. Furthermore, the guide's bodily conduct, particularly his position behind the quern, displays his authority as a guide, that is, as someone authorized to touch, move, and use the quern in a way that instantiates the affordances of the object (Gibson, 1977).

After the transitional phase of the kneeling movement (lines 07–10), the quern is turned into a prop in the demonstration. In Clark's terminology, this would be a *genuine prop* (2016: 335), that is, an item that is not a replica or whose functionality is not only gesturally depicted, but which is a physical object operated as intended by its design and its affordances. As a genuine prop, the quern is presented by the guide as a fully operational tool, not just a dummy, as would be the case with a plastic or papier mâché model. Similarly, an original prehistoric quern would not serve as a genuine prop, as original finds are usually excluded from use for reasons of conservation and protection. It is the actual operation of the quern, its distant observational description, and the verbalization of the personal embodied experience which invites references to the demonstrated activity as a past activity: the frequent and regular use of the item for grinding grain would contribute to a state of physical exhaustion.

Physical effort as an accompanying feature of using the quern is foregrounded by participants through the use of the local Swabian dialect. The guide uses code-switches to comment on the efforts of demonstrating the quern. After the establishment of the quern as the new focal point, he prepares for the demonstration by taking up a position behind the quern while relating information about the state and number of quernstones excavated at the settlement. Demonstrating the use of the quern necessitates a kneeling movement which proves to be a challenge for the guide: he interrupts his talk with a slight groan as a non-lexical vocalization (Keevallik & Ogden, 2020) followed by a switch to the local dialect in order to comment on his bodily efforts.

The guide's near-standard speech already displays a noticeable Swabian accent and the use of dialectal lexis, such as the definite article *de/s* (StGer *den/das,* line 19). Due to the lack of the schwa sound in Swabian, near-standard pronunciations of vowels that are realized as schwa in Standard German are articulated with deliberation as in *schenkeln* /ʃɛnkɛln/ (line 20). These characteristics are audible in the guide's presentation speech mode as well as in the speech of some of the participants (PA3 in line 26). In the utterances in question, additional characteristics mark a shift from a Swabian-tinted near-standard speech to full dialect: use of dialectal lexis such as *noigle* (*knien*, to kneel), *han* (*haben*, have), *miessa* (*müssen*, must), *noi* (*nein*, no) and *knui* (*Knie*, knees), vowel omission as in *wiedr* (*wieder*, again), final consonant omission as in *I* (*ich*, I), *au* (*auch*, too), *scho* (*schon*, also), *ma* (*man*, one), *de* (*des*, the).

Similarly, PA4 uses Swabian dialectal speech in his comment on the physical effort of the grinding activity (line 24). Typical characteristics are final /ʃ/ in *brauchsch* (you need) and final consonant omission in *kei* (no), while the repetition and reformulation of his original utterance in line 21 can be characterized as a shift along a standard-dialect continuum (Auer 1986, Kaiser 2006) towards the standard.

Code-shifts as well as code-switches have been shown to have similar functions concerning the organization of conversation (Garafanga, 2009), for example, setting off parts of the conversation from preceding and following talk, signaling roles and group membership (Kaiser, 2006) or to generate specific meanings (Auer, 1986), all of which are applicable to the demonstration presented here. As code-switches indicate a motivated "divergence from the language of the prior turn or turn constructional unit" (Auer, 1988: 137), the divergence from the near-standard speech of the guided tour mode separates the embodied action of kneeling from the reflective talk on quernstones. It brings the attention back to the here-and-now of the speaker, who verbalizes his own bodily experience in dialectal speech, probably perceived as a more 'natural' or holistic way of recounting an experience of one's own corporality. This is also evident in the use of the first-person singular pronoun in his comment (*i* in lines 08 and 09). Furthermore, the switch could signal increased informality and social proximity to

the group compared to the guided tour mode, marking the unexpectedly strenuous kneeling action as an aside to the main activity of the demonstration.

The return to the demonstration activity in line 11 is once again marked by a switch towards near-standard speech and, additionally, a change of agency: during the demonstration proper, the explanations given by the guide of the grinding process leave out human actors altogether (lines 11–20). This deagentivization changes the role of the guide's body in the demonstration activity: his body and the actions form a particular connection with the quern—they become a unity which obscures the agent in the present and allows an embodied indexing of *past* bodies carrying out this activity in the same or at least a similar way. It is as if the guide, while performing the actions, reports on them from a distant observer's position, almost like a kind of subtitling, while his embodied activity unites his body with the object and the prehistoric practice of grinding cereals. This impression is visually and audibly intensified in the pause in line 18, in which the only sound is the rhythmic scraping noise of the runner against the quernstone in concert with the backwards and forwards movement of the guide's body. In this demonstration, the guide acts out his institutional position and authority by combining the transmission of knowledge with an instantiation of the usability cues of the exhibit. Participants are neither invited nor asked by the guide to operate the quern themselves, effectively excluding them from having their own embodied experiences with the object. This places particular emphasis on the bodily conduct and personal bodily experience of the guide, with the group remaining passive observers of the scene.

Introducing the final part of the demonstration, a further use of dialectal speech focuses the group's attention once more on personal bodily experience: in PA4's comment on the idea that the strenuousness of the activity makes a gym unnecessary for exercise (line 24), the personal pronoun ending (*brauchsch*) is relinquished in favor of the more unambiguously general pronoun *ma* (one) in the repetition of the repair sequence in line 26. This general reference is taken up by the guide in his reply (*no, but you can later see it on your knees*, lines 28–29), putting his personal experience of sore knees into a more general context that can, along with himself and other contemporary users of the quern, also include past users of the object and assume a similar bodily experience for them. PA3's comment on the sheepskin placed in front of the quern shows a recognition of the functionality of the whole arrangement, while again avoiding an explicit reference to potential past and present actors.

It becomes evident that within the whole demonstration, code choices align with the changes in bodily activity, contributing to the sequential organization of the interaction and the referencing of agency.

5. Discussion: Indexing Past and Present Realities

The above analysis shows that participants index and orient to at least two different realities in their interactions. Drawing on Gibbons' (2003) distinction between primary and secondary realities in the legal context, a framework is proposed for the way in which participants' verbal and bodily conduct reflect an engagement with the past:

- The primary reality of the guided tour as the participants' here-and-now. This primary reality of the group, in analogy to Gibbons' (2003: 129pp.) primary reality of the courtroom, is structured by the interactional and communicative demands and conventions of the genre of the guided tour, which has its established place in the institutional setting and communicative budget (Bergmann & Luckmann, 1995) of an archaeological open-air museum. In the talk, the primary reality of the guided tour is indicated by use of the present tense as well as by spatial, temporal and personal deictic expressions and accompanying movements such as pointing gestures. Within this primary reality, embodied personal experiences in the present are marked by participants' use of the dialectal form of Swabian, setting the construction of the personal experience of operating the quern aside from the main activity of the demonstration as part of the tour.

- The secondary reality of the past. In Gibbons' courtroom settings, this past is that of the events reported on in police interrogations and court hearings (2003: 147). For the purposes of the present discussion, the past must be further divided into a) the more recent past of the excavation and b) the distant Neolithic past of the period of settlement the site is modelled on. The recent past of the excavation is indicated by the use of the past tense in the references that recount and evaluate aspects of the excavation. These explanations prepare the ground for the quern to be regarded as a model of the original finds, thus confirming the quality of pastness that is already indicated through the object's status as an accessory in a Neolithic domestic scene.

Gibbons' two realities are omnipresent in a heritage environment, where visitors are constantly confronted with reconstructions and original structures in connection with modern interpretive infrastructure in the here-and-now of their museum or site visit. Throughout the guided tour as an interpretive interactional format, participants employ various means to connect these realities. A prominent activity through which this is achieved is the demonstration of the quern. Rather than being narrated as an event in the past, the original use of the quern is demonstrated by the guide in an embodied action. Interestingly, this reality of the distant Neolithic Period, although quite clearly in the past, is not identified by the use of the past tense. Instead, it is primarily the demonstration itself by which the

distant past is evoked, involving a shift in agency on the part of the guide and resulting in speculative comments by the participants of the guided group. The demonstration is thematically and sequentially integrated into the guided tour as an educational event situated in the primary reality. As such, it constitutes a *proximal scene* (Clark, 2016: 327), that is, a physical depiction in the here-and-now, with a genuine prop as the focus of the demonstration. It is the *distal* scene that is depicted in the ongoing interaction: "The proximal scene is in the here-and-now, and the distal scene in a there-and-then—in a world that is displaced in place, time, or reality" (Clark, 2016: 327). In order to comment on this displaced world, the guide uses linguistic means to obscure his own agency: omission of the first-person pronoun, continuous use of the near-standard variety of Swabian and comparatively long pauses which foreground the embodied action of grinding.

In this particular demonstration, participants use objects, their bodies and language in distinct ways of alignment: in the demonstration proper, the guide's body forms an alliance with the object while his talk creates an observer's distance. In contrast, in the preparatory and the reflective phases framing the demonstration, the talk is closely connected to the body as a singular entity with a concrete experience, while the object is relatively distant. Both ways of alignment of object, body, and talk offer specific connections between the primary and the secondary reality: a connection through the embodied use of a genuinely usable object, on the one hand, and a connection through the reflection on personal experience on the other. Because of the fragmented nature of archaeological evidence, past objects are not necessarily sedimented "solutions of our predecessors" (Goodwin, 2018: 247) with an unbroken tradition of knowledge accumulation and transfer. Instead, modern users have to employ strategies in their joint engagement with past materiality that allow for the negotiation of authenticity, intended use, and personal experience in understanding the purpose of the object in question. Such strategies, as the data show, involve verbal, embodied and interactional means to make a connection between the present and the past. In that sense, participants do indeed engage in actions that "frequently incorporate, and accumulatively operate on, resources and solutions created by actors no longer present, but that structure the current landscape for action" (Goodwin, 2018: 246). It is evident that in this guided tour, the asymmetry inherent in the style of guiding equips the guide with the authority to decide when and how the object comes into focus and how he and the group are to engage with it. In this case, the use of the object is restricted to himself, as the group is not invited to try the quern themselves. Thus, the guide's role as mediator between the two realities is amplified by the group's relatively passive role as observers and commentators.

6. Conclusion

Embodied actions and objects used in the activity are sequentially integrated into the guided tour format and aligned with the verbal commentary on the spatial features, their rationale and their application. As a prop, the quern becomes central to the demonstration, connecting the primary reality of the guided tour and the secondary reality of the depicted past. The realities are verbally, contextually, spatially and temporally indexed: the reality of the museum experience, including the rationale of the reconstruction in the here and now, and the reality of the past as the excavation of the settlement as well as its original prehistoric period of occupation. The object status is activated according to the past reality that is addressed primarily in the interaction, and the participants' interactions reveal references to and engagement with these realities, their spatial and material properties and their interactional potential. The demonstration as part of the guided tour therefore does not merely provide a simulation of the past, but also an approximation of and engagement with it through verbal and bodily means.

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