This contribution reports on an interdisciplinary study using multimodal space-based interaction analysis (Hausendorf, Schmitt & Kesselheim 2016) to investigate co-orientation, co-ordination and co-operation during interactional activities that structure the material space. It analyses naturally occuring interactions to describe and interpret how participants use verbal, gestural, bodily and spacial resources to make sense of an environment that they understand as being of the past, i.e. that is characterised by *pastness* (Holtorf 2013). In the case reported here, participants are engaged in the building of a Mesolithic style hut, i.e. an activity in archaeotechnology involving experts and laypeople. The project's main data source are audiovisual recordings of the building activities, some of which have been recorded from three perspectives: external observer's perspective (static camera), internal observer's perspective (mobile camera) and participant's perspectives (headcam). The data yields instances of instruction at the interface of expert-nonexpert interaction that focus on the establishment of boundaries in three-dimensional space.

The joint creation of buildings in interaction requires a shared understanding of the shape and position of the final product. In interaction, these mental images or situational visualisations of entities that are not yet existent at the moment of speaking are made available by the speaker through *imagination-oriented deixis* (Bühler 1934/2011, Stukenbrock 2014) using verbal, gestural and embodied means. This mental image is shared and sustained by participants in the ongoing co-operative interaction until the boundaries are physically established and the structure is in place. Without a sketch or model available to them, the team employs multimodal instructional activities to organize and distribute the relevant tasks in a temporal and spatial order. Global instructions on each major step in the process is complemented by local directives and corrective feedback for local actions to provide the temporal framework for an incremental sequential process that culminates in the finished product. The data not only shed light on the interactional organisation of building activities in the present, but also, in the sense of Goodwin (2018), on how co-operative action with predecessors manifests itself in the recovery and implementation of past knowledge through joint constructional action.

References

Bühler, Karl (1934/2011). Theory of language. The representational function of language. Translated by Donald Fraser Goodwin in collaboration with Achim Eschbach. Amsterdam: John Benjamins.

Goodwin, Charles (2018). Co-operative action. Cambridge: Cambridge University Press.

Hausendorf, Heiko, Schmitt, Reinhold & Kesselheim, Wolfgang (eds.) (2016). Interaktionsarchitektur, Sozialtopographie, Interaktionsraum. Tübingen: Narr.

Holtorf, Cornelius (2013). On pastness: A reconsideration of materiality in archaeological object authenticity. Anthropological Quarterly, 86(2), 427–444.

Stukenbrock, Anja. (2014). Pointing to an 'empty' space: Deixis am Phantasma in face-to-face interaction. Journal of Pragmatics 74, 70-93.