Interweaving Resources: From Economic Hegemony towards a New Understanding of Resources
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LANDSCAPING collective and intertwined practices and perceptions that shape landscapes in a culturally specific way by appropriation of space.

Smelting remains and waste like decayed furnaces and slag heaps stabilize spatial practices by their perceived affordances and embodied know-how.

The perceived accessibility of valleys with smelting sites as interconnected spaces of economic potential is severely restricted.

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Landscaping in Iron Age Siegerland

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Introduction

The Siegerland in Western Germany is a thoroughly investigated research area for mining and iron production during the Iron Age (6th to 1st cent. BC). Researchers focused on economical perspectives due to the high numbers of production sites (Garner et al. 2020). This traditional research scope often distorts interpretations of settlement patterns, everyday life, and perceptions of landscapes through dualistic thinking. This study focuses on the interrelationships of humans and things, which are (re-)constituted by the ways of walking by, digging through, looking at or thinking about them (Ingold 1993). In this way, it is possible to question spatial behavior and perception of space.

Methodology

Proximity and distance play an important role (Higuchi 1983; Wheatley/Gillings 2000), as they are decisive in determining which things are incorporated into practices (**Fig. 1**). Furthermore, investigating sensual perception is crucial in understanding people's way of shaping spaces while performing practices such as smelting (**Fig. 2**). Experiments are well suited for this purpose (Demant et al. 2019; O'Neill / O'Sullivan 2020). In addition, different scales of accessibility induced by know-how or status, etc. influence specific landscaping practices (e.g., 'practices of bordering').

Results

Smelting sites have diffuse borders. Their "growing/shrinking" is a matter of performative momentum, knowledge, and skill, etc., which is reproduced in cultural memory. Spatial practices were stabilized over time by smelting residues, not only in the recognition of past and future economic potential, but also in the avoidance of these unified areas by non-smelters. Valleys with several smelting sites were constituted as an interconnected space. Although the result of landscaping of smelters and non-smelters seems identical, the chances of appropriation are fundamentally different based on embodied know-how.

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Case Study: smelting sites

Even in cases of advanced forest clearing, the furnace sites appear as solitary spaces. Details and shapes of people and their daily work are only distinguishable in close and medium range, which resonates with short times of traveling. During 'active' smelting, smoke and noise increased the feeling of isolation.

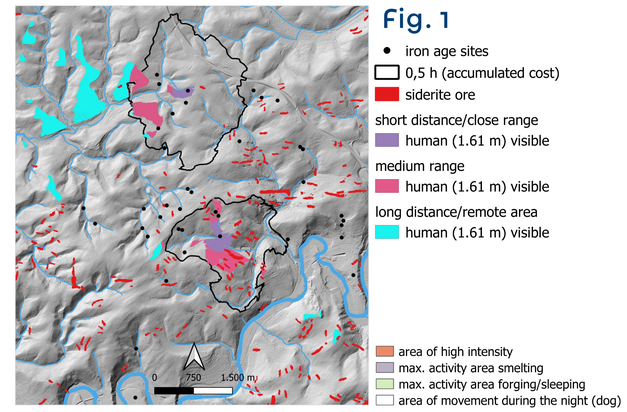
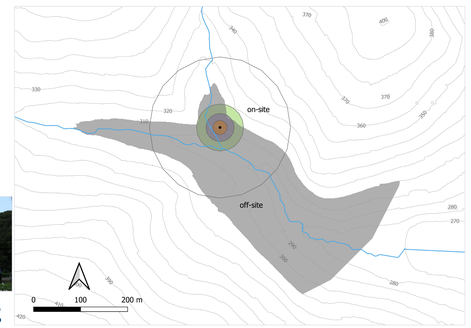


Fig. 1

Fig. 2



Large sites with multiple furnaces and slag heaps, like in the valley of Minnerbach (**Fig. 3**) and presumably Gerhardsseifen, show repeated visits, the reuse of old furnaces, and their regular arrangement along the streams (Menic 2016). Over time, old furnaces were literally incorporated into new practices, and this condensed ensemble was placed in relation to smelting sites yet to come. But these places lack permanent non-metallurgical activities.

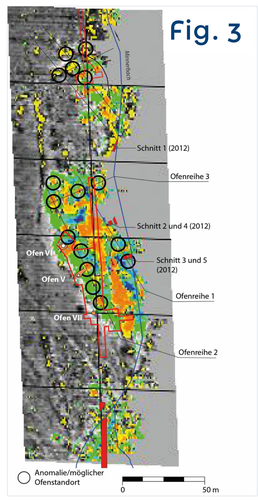


Fig. 3

Fig. 1: Higuchi-Viewshed and cost. Trüllesseifen (top) and Gerhardsseifen (bottom). DTM1; without vegetation; eye-height: 1,49 m; radius of sight: 3440 m; ox-cart-function Herzog 2013, critical slope 12°, anisotropic; EPSG: 25832; Fig. C. M. Stähler.

Fig. 2: Areas of perception and activity at Gerhardsseifen based on eyewitness accounts by Manuel Zeiler. DTM1; EPSG: 25832; Fig. C. M. Stähler; Fotos: M. Zeiler.

Fig. 3: Minnerbachtal, DBM/S. Menic; J. Garner.