# APPRENTICESHIP TO GLACIOLOGY: AN ATTEMPT AT THICKENING DESCRIPTION FOR THINNING ICE

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Glaciers are often portrayed as icons of global warming. Historically, they have been viewed as "menace, scientific laboratories, sublime scenery, recreation sites, places to explore and conquer, and symbols of wilderness" (Carey 2007, 497). These narratives and their power to define nature are still at work in today's "endangered glacier" narrative. Disentangling its distorted representation could help the fight against global warming to more effectively and equitably locate and address the driving forces in responses to climate change (500–501). Stepping back from what they have become symbols of, what can we unlearn and learn from being with a glacier, and what kind of "thick description" (Geertz 1973) can we compose from a transdisciplinary exchange with a glacier?

We, a group of artists, scientists, and a dog, spent a week of fieldwork on the Suldenferner glacier in South Tyrol in August 2023. We shared reports and materials from our investigation through a symposium, an exhibition, and a zine in January 2024.

The following photo-essay tries to re-evaluate critical aspects of the transdisciplinary fieldwork we carried out. The selected images refrain from representing the landscape as a perceived totality and imply modes of "dwelling" (Ingold 2000) and "hanging around" (Vanhala, Johansson, and Butler 2022) in the land.



Figure 1. Introduction to the glacier site.

We became apprentices to one of the group, a professional glaciologist, who had previously studied the debris-covered glacier. Our overall methodological approach made use of "dilettantism," taking an interest in the knowledge embodied in the researcher's fieldwork routines and involving ourselves in their practice, but deliberately not following all the steps (Heidemann 2012).



Figure 2. Dismantling of a time-lapse camera that had been recording visual changes of to the glacier since 2014 (left) and taking measurements of the glacier's surface conditions with a portable weather station, specifically to find out how the surface albedo—its reflectance of solar radiation—varies across the glacier (right).





The group's short-term training as dilettante glaciologists followed scientific projects that have monitored several properties of this glacier with the aim of understanding the processes of meltwater production, sedimentation, and glacier change. Our involvement was therefore based on a longer-term relationship that had formed between the researcher and the glacier site through repeated visits, entailing mutual interference in their beings. Some of this knowledge was passed on by the glaciologist-artist during a daily morning briefing, including historical peculiarities and guidance on weather conditions.

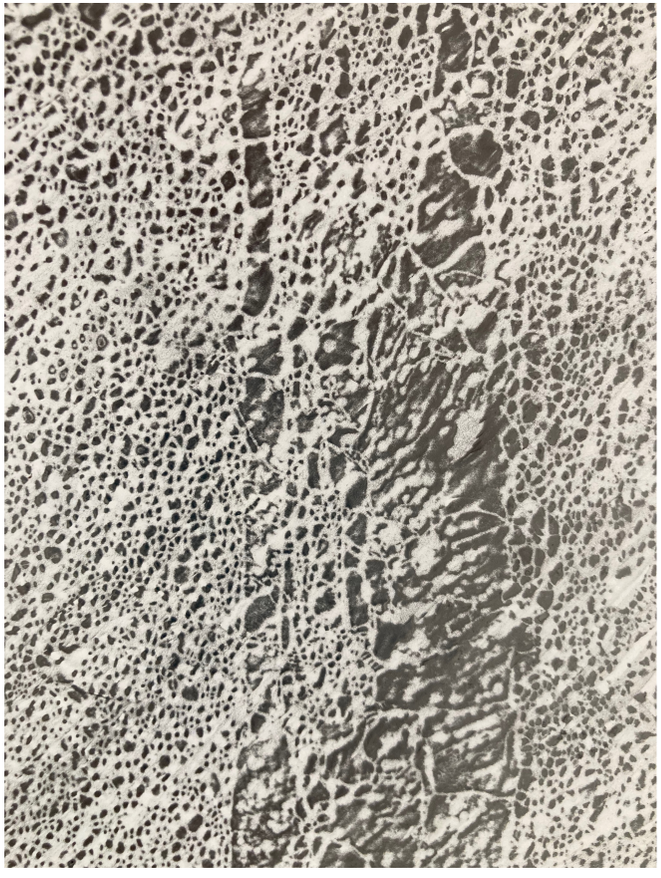
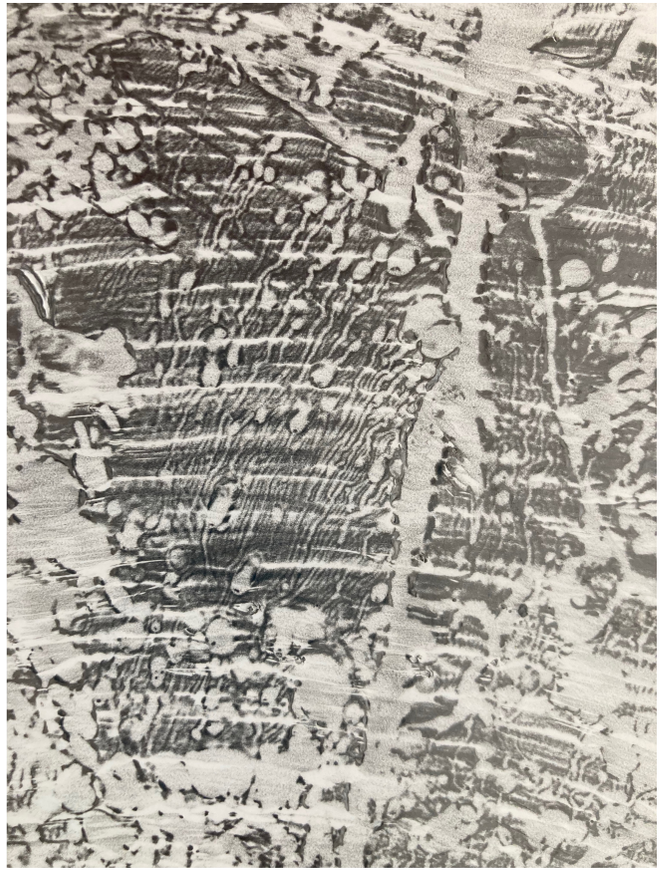


Figure 3. Graphite rubbings of glacier ice showing crystal boundaries, cracks and fault lines in the material and surface texture of the melting crystals.





The boundaries between scientific and artistic purposes began to blur with techniques such as crystallographic ice rubbing, which was adopted in the artistic practice of one group member for its representational quality of manifesting intricate patterns, but which can also be interpreted glaciologically to reveal glacier formation and deformation history (Seligman 1950). As the disciplinary roles in our group were mixed, who was expert or non-expert shifted with changing contexts, and ideas became interwoven throughout the group.



We soon began to explore through our individual artistic-scientific techniques, which involved looking closely and attentively, walking the paths between the hut and the glacier, and noticing and closing in on details.

Figure 4. Collecting mud from basal ice for pigment production on the hike back.

Approaches were driven by comprehending the landscape, such as collecting mineral pigments, making maps, drawing, and writing impressions. Photography and drone videos attempted to capture wider angles and a bird's eye view. Printmaking activities such as surface rubbings and cyano-types inscribed textural elements.

Visiting a “disturbance-based” ecological site (Tsing 2015), we tried to accept the hypocrisy of our presence there, unable to protect the glacier, but rather reiterating the reasons for its destruction with our western lifestyle with every step leaving microplastic from our shoes. We sought to unlearn the recourse to “purity politics” and the false belief that there is an uncompromised primordial state to which we can return (Shotwell 2016).




Figure 5. Field journal entries of glacier impressions and sampling. The notes describe sampling for microplastic in a stream identified as potential groundwater, expecting it to be free of microplastics, a sudden hail shower, and finding pine needles on the glacier well above the treeline, puzzling the artist-vegetation ecologist.

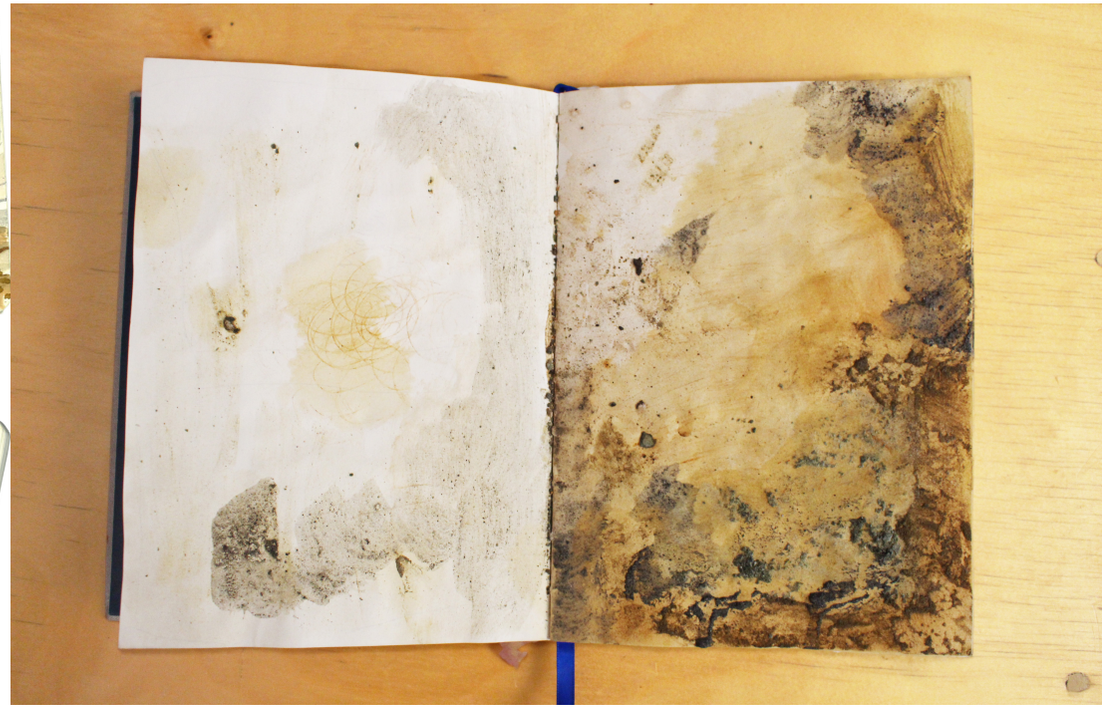


Figure 6. Tests in a field journal with collected pigments after the trip.



Figure 7. Studies of rock tables at the boundary of the debris-covered and the exposed ice.



Our transdisciplinary study of the glacial landform as “participant observers” drew from “environmental ethnography” (Lezak 2023) and shifted the focus from the human protagonist to all “forms of existence” (Povinelli 2016, 5). In addition to dilettantism, this overall methodological approach involved allowing openness to the unexpected (Strathern 1999, 9), understanding that we co-produce the field (Ingold 2014, 387), being attentive (van Dooren, Kirksey, and Münster 2016), and seeing the process as one that doesn’t necessarily give rise to a specific output, but primarily transforms us and thereby educates us (Ingold 2014, 388).

LIST OF ROCKS >this is not a glacier< 2024



**one, 2023** Sabrina Rosina
A classic toad-stone. Found near meltwater streams. Hibernates.



**two, 2023** Sabrina Rosina
This piece broke in the most unexpected way. With softness.



**three, 2023** Sabrina Rosina
Residue of a rock-sandwich. With a tasty mould of gneiss and limestone.



**four, 2023** Sabrina Rosina
Here we can witness seismic activities graved into rocky matter. A stone to learn performance art from.



**five, 2023** Brishty Alam
A stowaway. I took it for us to play at the glacier but there it was when I got home.



**six, 2023** Lindsey Nicholson
The most representative rock I could find. One of the crowd.

Figure 8. List of rocks compiled for the exhibition *This Is Not a Glacier.*

An ethical dilemma resides in the documentation: at the very moment of "encountering the world" in the field, one is concerned with retrospective analysis and the possibility of reporting to others (Ingold 2014, 386), and a question arises whether we perpetuate colonial agendas by taking samples from the glacier. Nevertheless, our practices created an entry point for embodied engagement with the site, rather than pursuing an extractivist agenda.



Moulds and imprints collect a trace, an outline, a negative space, echoing the way the glacier itself forms the land. An event of touch, expressing that this has not been a remote survey, but that the land and its forms of existence have touched us and left a mark, similar to the Arctic ice that “impinges on the imagination” (Hastrup 2013, 51). Our description of the glacial landform is an assemblage of such impressions and co-produced understandings.

Figure 9. Alginate mould on rock, which didn’t work for casting due to the cold temperature.



Figure 10. Investigating an ice hole and becoming a part of it.

Rounding up the pitfalls of the transdisciplinary fieldwork:

*— What narrative have we imposed on the glacier?* Intending to enrich the iconography of the glacier, we were nevertheless pulled in by aspects of existing narratives. That is why instead of a substantial representation ex situ, we want to preserve the small pieces, traces, and imprints.

*— Is the reason for using the "pseudoethnographic role" to claim "ethnographic authority" (Foster 1996, 306)?* Rather, we want to emphasise the value of amateur study, which nevertheless requires “rigour” and “precision” in the care and attentiveness it practices (Ingold 2021, 11-14). In our experience, the questions raised by the dilettante role have broadened the perspective of the expert role and its disciplinary conventions, which focus attention on certain phenomena and demand that others be neglected, leading to a greater openness to different connections, processes, and features at the glacier site.

*— Is a one-sided view created through what attracts attention the most?* In less crowded spaces, single elements stand out more than interconnections (Lezak 2023, 294–95). This wasn’t questioned in the field, but the different training of the group’s eyes may have had an advantage.

*— Resisting being result-driven, does this artistic research have nothing to pass on to others?* Transdisciplinary dilettante glaciological participant observation, if repeated regularly, could be a mindful and engaged way of describing how mountains change with climate. Although there is a tradition of artists doing fieldwork and an existing methodological refinement of the transdisciplinary approach as “incubation” (Guggenheim, Kräftner, and Kröll 2018), our initiative seems novel for glacier research in Central Europe.

*— Is this reason enough to possibly contribute to the destruction of the site?*





Figure 11. Play with reassembling the rock puzzle at the hut in the evening: the stone, that has been broken apart by the action of ice, exudes a tactile physicality in the process of being reconstituted in human hands. Was this a game our ancestors also played?

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Figure 2. Dismantling of a time-lapse camera and taking measurements of the glacier's surface conditions with a portable weather station. (Sulden cable car mountain station & Suldenferner, 4 & 5 August 2023. Photographs by Márton Zalka & Brishty Alam.)

Figure 3. Graphite rubbings of glacier ice showing crystal boundaries, cracks and fault lines in the material and surface texture of the melting crystals. (Suldenferner, 7 August 2023. Rubbings by Lindsey Nicholson, graphite on stone paper, each 10 x 20 cm.)

Figure 4. Collecting mud from basal ice for pigment production on the hike back. (Suldenferner, 8 August 2023. Pigment collection by Chloë Lalonde. Photograph by Márton Zalka.)

Figure 5. Field journal entries of glacier impressions and sampling. (Suldenferner, 6–8 August 2023. Field notes, drawings and mushroom prints by Sabrina Rosina.)

Figure 6. Tests in a field journal with collected pigments after the trip. (Montreal, November 2023. Drawing by Chloë Lalonde.)
Studies of rock tables at the boundary of the debris-covered and the exposed ice. (Suldenferner, 5 August 2023. Drawings in field journal by Brishty Alam.)

Figure 7. Studies of rock tables at the boundary of the debris-covered and the exposed ice. (Suldenferner, 5 August 2023. Drawings in field journal by Brishty Alam.)

Figure 8. List of rocks compiled for the exhibition *This Is Not a Glacier.* (Exhibition & Symposium. Angewandte Interdisciplinary Lab, Vienna. 26 January–2 February 2024. Listings on five pages compiled by Sophie Olivia Taleja Schmidt.)

Figure 9. Alginate mould on rock, which didn't work for casting due to the cold temperature. (Suldenferner, 6 August 2023. Mould making and photography by Sophie Olivia Taleja Schmidt.)

Figure 10. Investigating an ice hole and becoming a part of it. (Suldenferner, 7 August 2023. Photograph by Márton Zalka.)

Figure 11. Play with reassembling the rock puzzle at the hut in the evening. (Hintergrathütte, 6 August 2023. Photograph by Márton Zalka.)

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