



Irene Kopelman  
On Glaciers and Avalanches

Exposition  
15.10.2017 - 14.01.2018

CRAC Alsace  
entrée libre

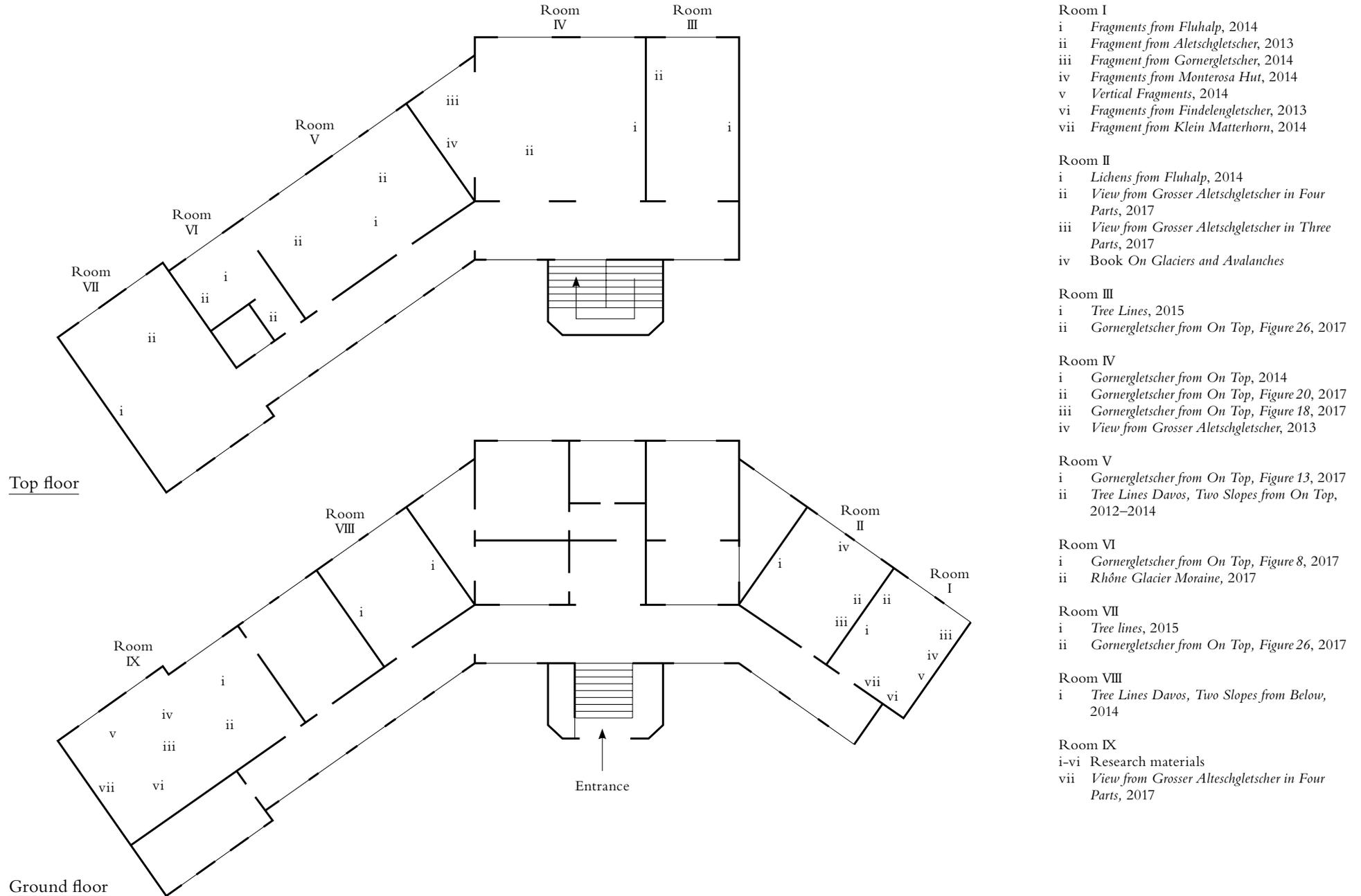


Banzet  
03 89 40 50 18

*On Glaciers and Avalanches*

CRAC Alsace (Altkirch, France)  
Octobre 2017 – January 2018

On Glaciers and Avalanches  
at CRAC Alsace



- Room I
- i Fragments from Fluhalp, 2014
  - ii Fragment from Aletschgletscher, 2013
  - iii Fragment from Gornergletscher, 2014
  - iv Fragments from Monterosa Hut, 2014
  - v Vertical Fragments, 2014
  - vi Fragments from Findelengletscher, 2013
  - vii Fragment from Klein Matterhorn, 2014

- Room II
- i Lichens from Fluhalp, 2014
  - ii View from Grosser Aletschgletscher in Four Parts, 2017
  - iii View from Grosser Aletschgletscher in Three Parts, 2017
  - iv Book On Glaciers and Avalanches

- Room III
- i Tree Lines, 2015
  - ii Gornergletscher from On Top, Figure 26, 2017

- Room IV
- i Gornergletscher from On Top, 2014
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  - iv View from Grosser Aletschgletscher, 2013

- Room V
- i Gornergletscher from On Top, Figure 13, 2017
  - ii Tree Lines Davos, Two Slopes from On Top, 2012–2014

- Room VI
- i Gornergletscher from On Top, Figure 8, 2017
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- Room VII
- i Tree lines, 2015
  - ii Gornergletscher from On Top, Figure 26, 2017

- Room VIII
- i Tree Lines Davos, Two Slopes from Below, 2014

- Room IX
- i-vi Research materials
  - vii View from Grosser Aletschgletscher in Four Parts, 2017

*On Glaciers and Avalanches* brings together a series of works that derive from glacier expeditions carried out between 2012 and 2014, and others made by the artist over the summer to complete the research, with the collaboration of Institut Kunst in Basel. Various series of drawings, watercolours, and paintings unfold on the walls of CRAC Alsace. A new series of porcelain sculptures are placed on the floor in different parts of the museum, as well as a number of objects and documents from the scientific expeditions.

The building of CRAC Alsace used to be a school, a place that was initially conceived as a space for learning, where the world could be discovered. It contains numerous small rooms of various sizes that are perfect for the distribution of these images from the Swiss mountains nearby, emphasising the fragmented character of the drawings and the production process of the pieces. As its title indicates, the focus of the project falls upon glaciers and the slopes of the mountains whose trees indicate the movement of the avalanches. The number of drawings in each series is defined by the days in each expedition, which may have been longer or shorter, with better or worse weather, with better or worse visibility. This determines the volume of work and also carries into the installation, spreading out in space not chronologically, but with a spatial and conceptual organization. Four paintings from the *Tree Lines* (III-i, VII-i) series are placed on either side of the exhibition perimeter, embracing the exhibition. They are views of two opposing mountainsides where Kopelman captured the effect of avalanches in two types of trees that inhabit the area at that altitude.

Four days to paint one slope, four days to paint the other. One drawing per day. This idea of facing mountainsides also appears in *Tree Lines Davos, Two Slopes From On Top* (V-ii) and *Tree Lines Davos, Two Slopes From Below* (VIII-i), made with watercolour and colour pencils respectively. They capture the tree masses that define the temperature of the territory and the action of the avalanches as seen from above and from below. In the second one in particular, the attempt at differentiating the two species of trees is perceptible in the two tones of green. *Lichens from Fluhalp* (II-i) is another series of eight drawings made by the artist when the meteorological conditions prevented her from painting the glaciers. She then decided to concentrate on natural patterns of a different scale such as those made by lichens on rocks, which are oddly similar to those of the glacier. These organisms, which cover large surfaces of territory but usually go unnoticed until one pays attention, may be used to measure air pollution. The purer the air, the more they extend, especially in rocky areas where other species cannot live, absorbing enormous quantities of nitrogen and carbon dioxide from the atmosphere and attaching themselves to the ground.

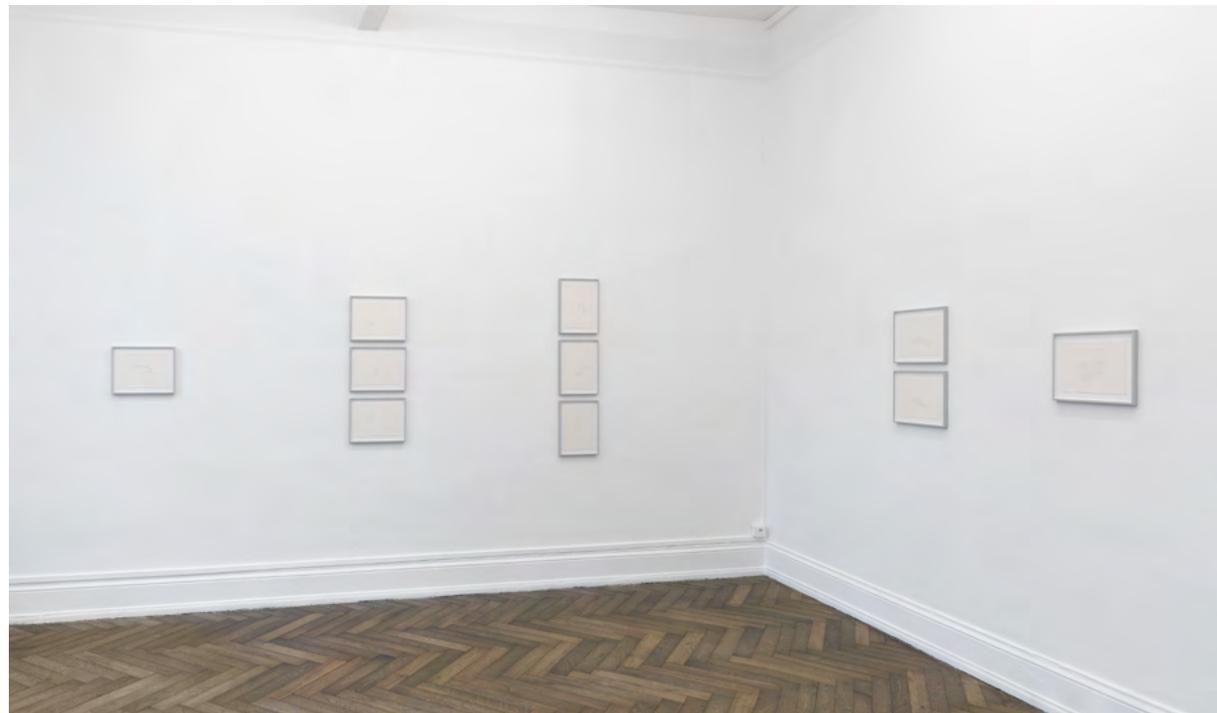
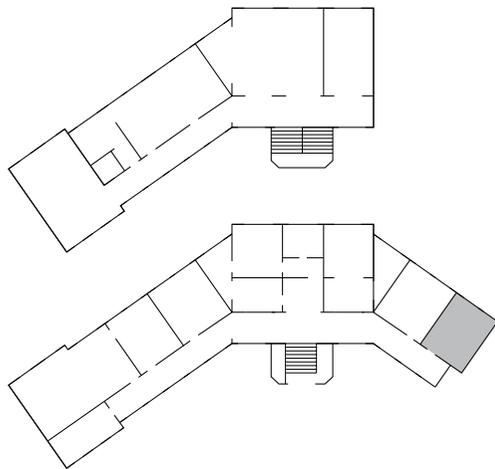
And then, of course, there is the glacier. Together with the series of four drawings *View of Grosser Aletschgletscher* (IV-iv), where tones of white, brown, and black present different views of the glacier, various series of fragments from different glaciers unfold in the space, distributing and situating alpine geographical points in the rooms. In the central space on the top floor, *Gornegletscher From On Top* (IV-i), an installation of 28 drawings, shows the whole glacier through various drawn fragments and

the gaps between them. For ten days, the artist drew the areas of the glacier with the most shapes and textures, leaving gaps with no drawing where the surface of the ice was smooth, thus establishing an arbitrary methodology that allowed her to apprehend the landscape and narrow it down. This piece was then used to create a new ceramic sculpture series. Superimposing the shape of the glacier onto the floor plan of CRAC, we selected some of the drawings that, now materialised as volumes, have been spread throughout the rooms, resting on the points of coincidence on the ground.

excerpt from "Walking with Images"  
by Juan Canela

## Room I

- i *Fragments from Fluhalp*, 2014  
pencil on paper  
2 drawings, 37.5 × 28.5 cm each (framed)
- ii *Fragment from Aletschgletscher*, 2013  
pencil on paper  
5 drawings, 37.5 × 28.5 cm each (framed)
- iii *Fragment from Gornergletscher*, 2014  
pencil on paper  
1 drawing, 37.5 × 28.5 cm (framed)
- iv *Fragments from Monterosa Hut*, 2014  
pencil on paper  
3 drawings, 37.5 × 28.5 cm each (framed)
- v *Vertical Fragments*, 2014  
pencil on paper  
3 drawings, 28.5 × 37.5 cm each (framed)
- vi *Fragments from Findelengletscher*, 2013  
pencil on paper  
2 drawings, 37.5 × 28.5 cm each (framed)
- vii *Fragment from Klein Matterhorn*, 2014  
pencil on paper  
1 drawing, 37.5 × 28.5 cm (framed)

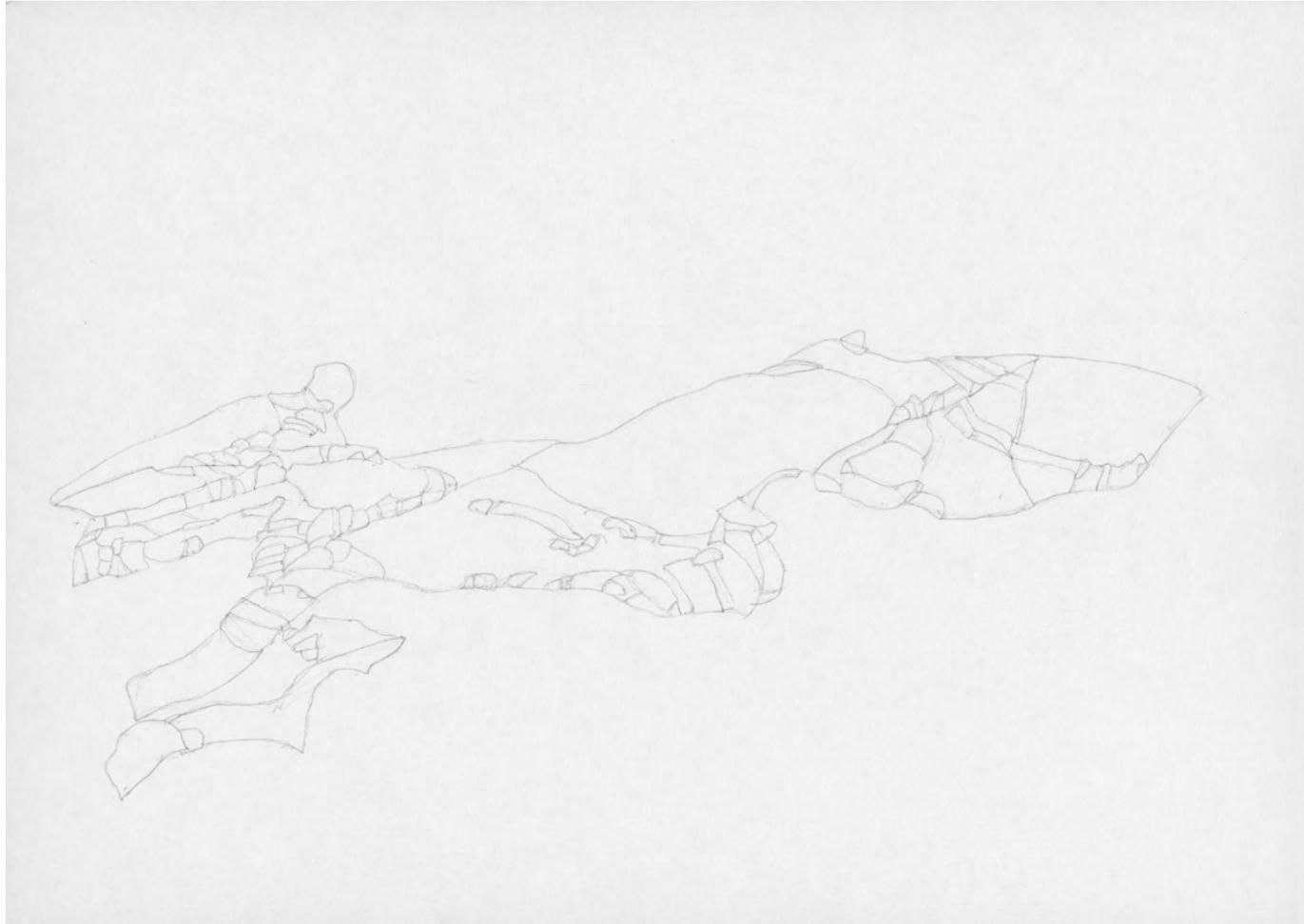


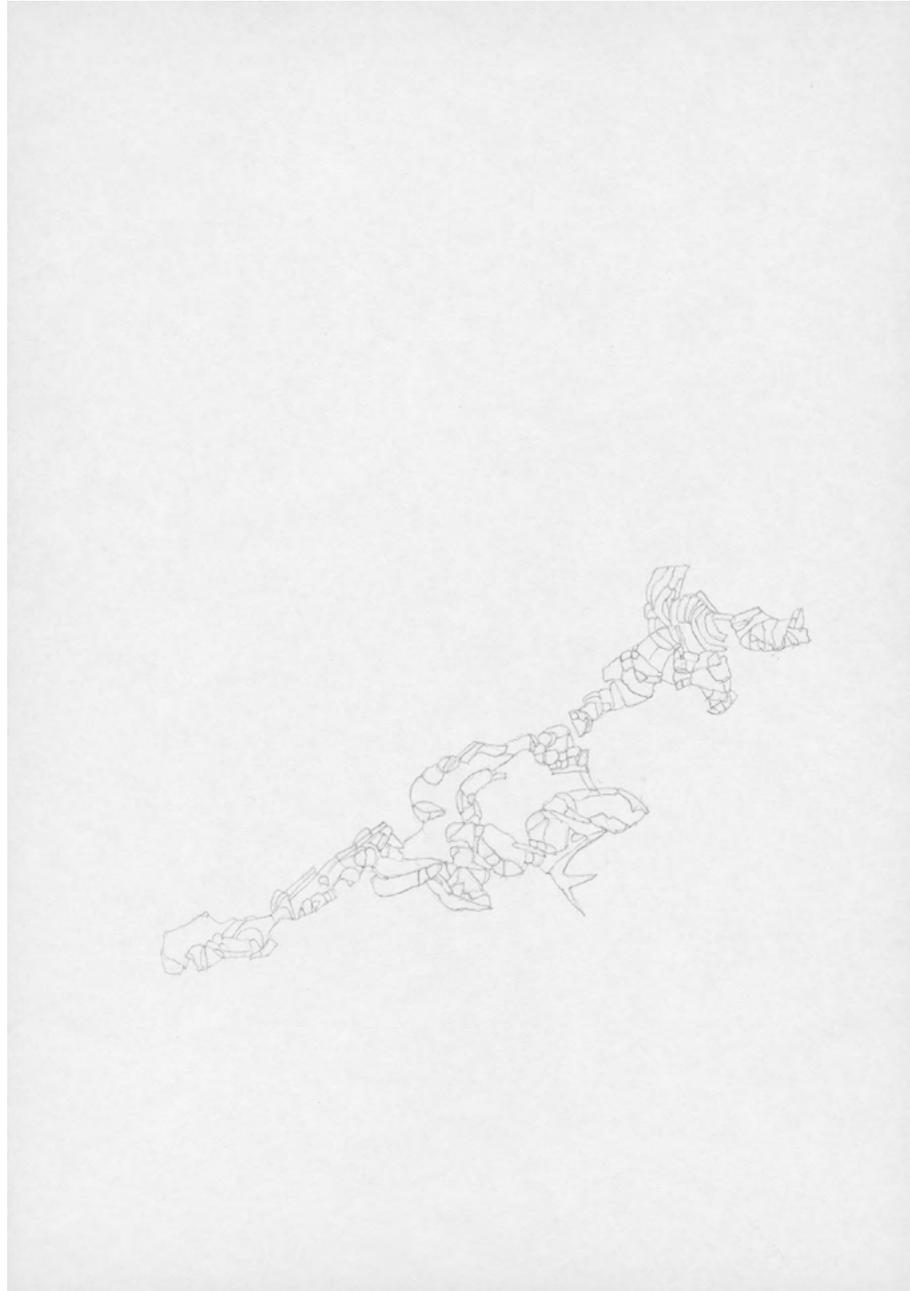
I-vii

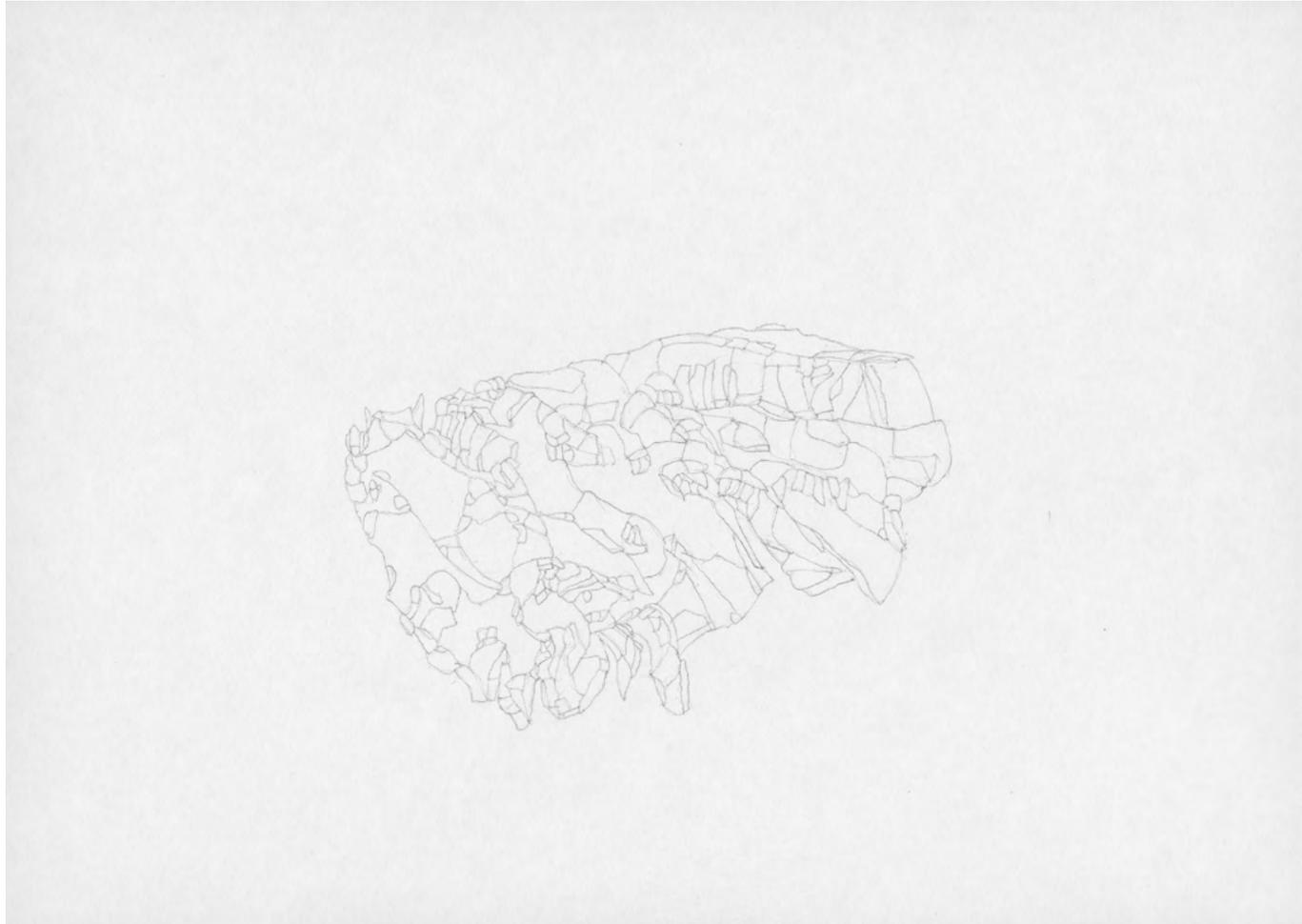


I-v

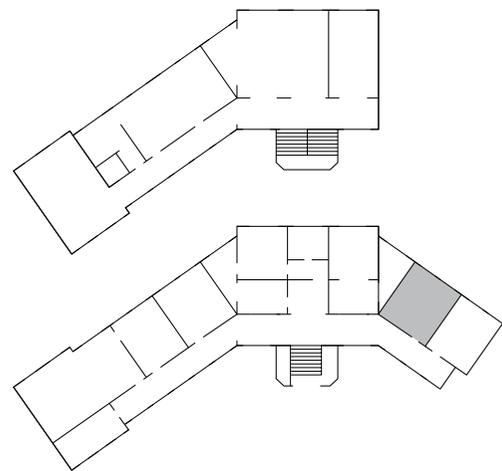








Room II



*Lichens from Fluhalp*, 2014  
coloured pencil on paper  
8 drawings, 30 × 40 cm each  
184 × 71.5 cm (framed)





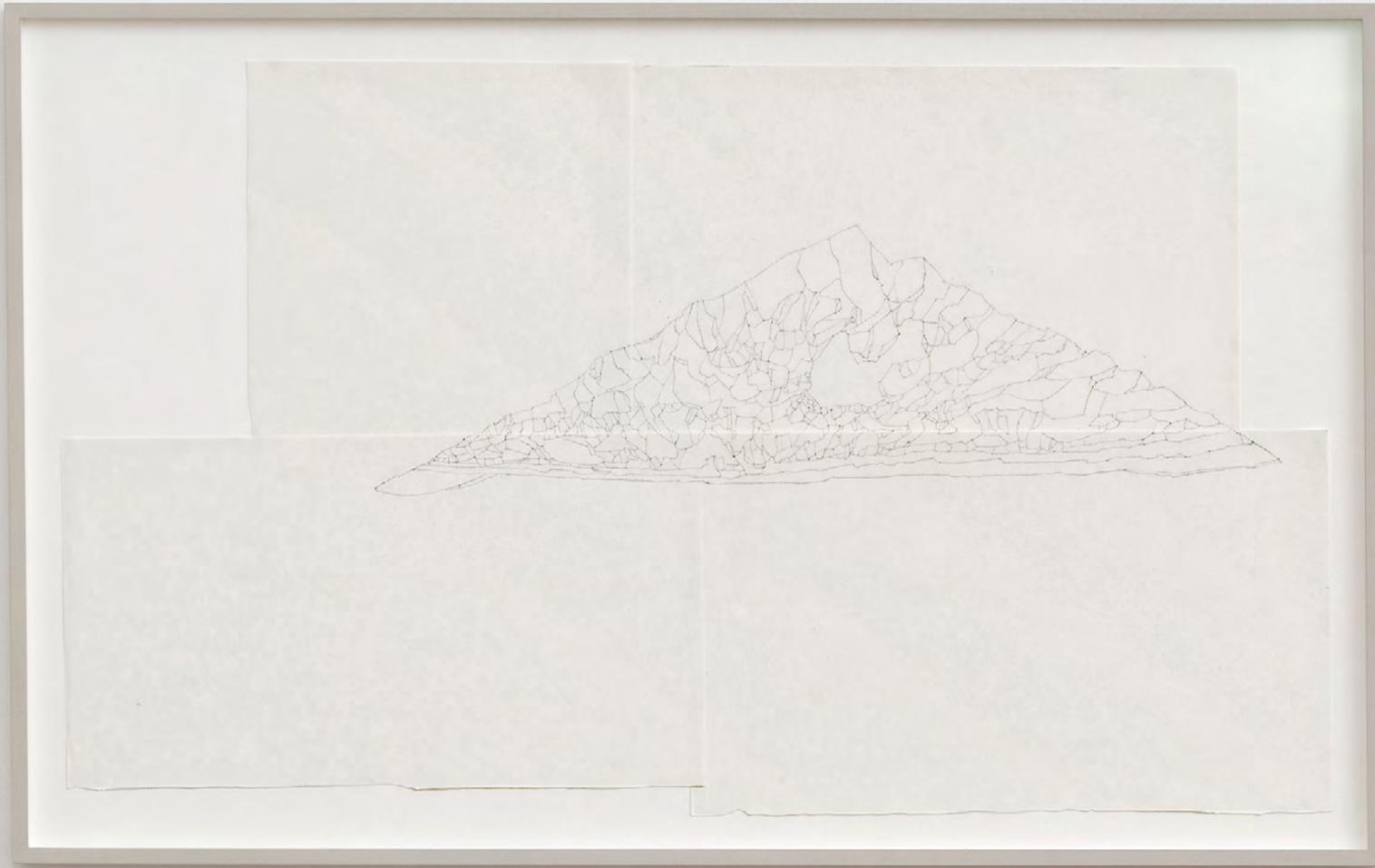


II-ii

*View from Grosser Aletschgletscher in Four Parts, 2017*

pencil on paper

92 × 57 cm (framed)



II-iii

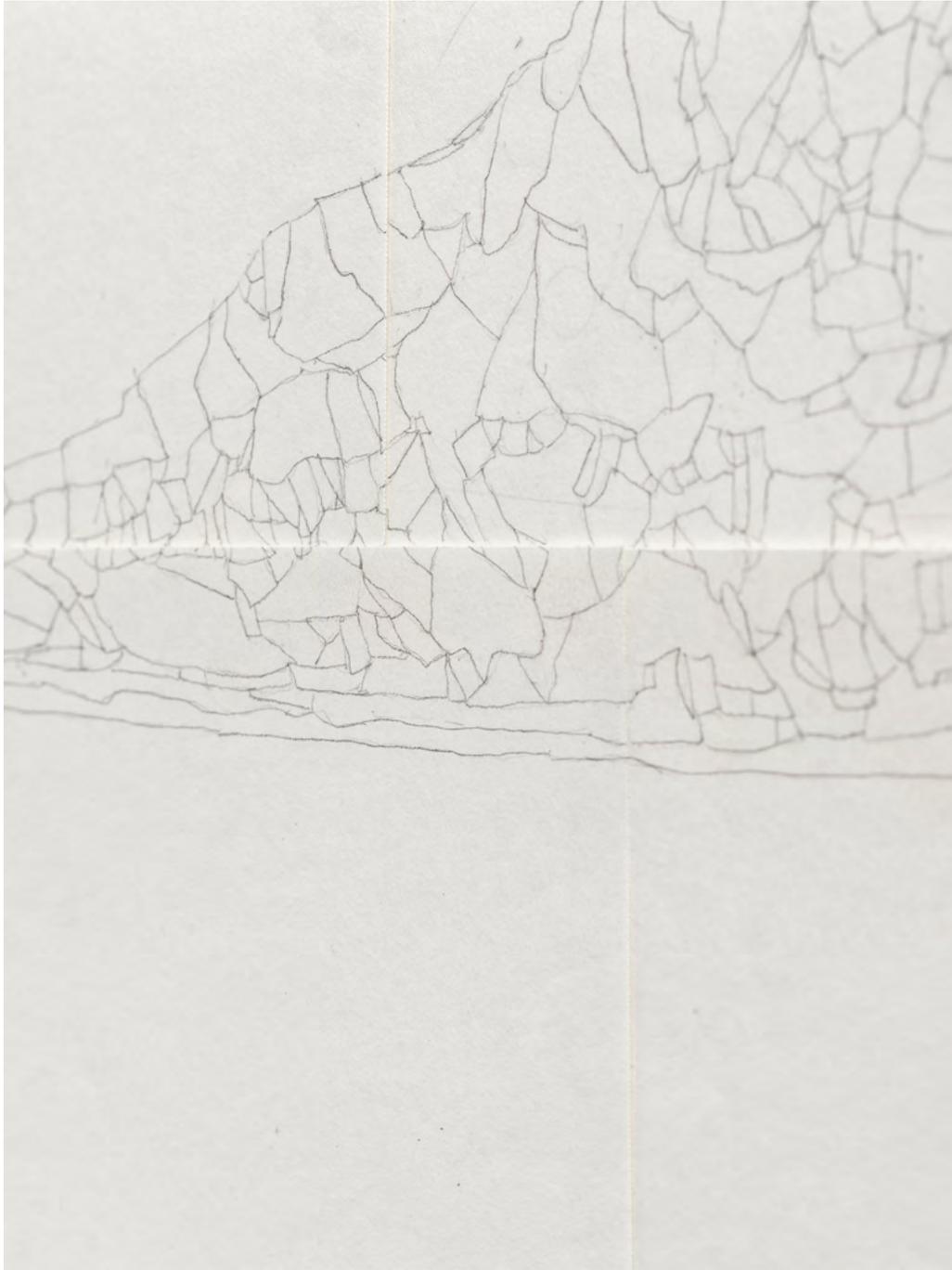
*View from Grosser Aletschgletscher in Three Parts, 2017*

pencil on paper

66.5 × 71 cm (framed)



II-ii



II-iii



II-iv

Book

*On Glaciers and Avalanches*

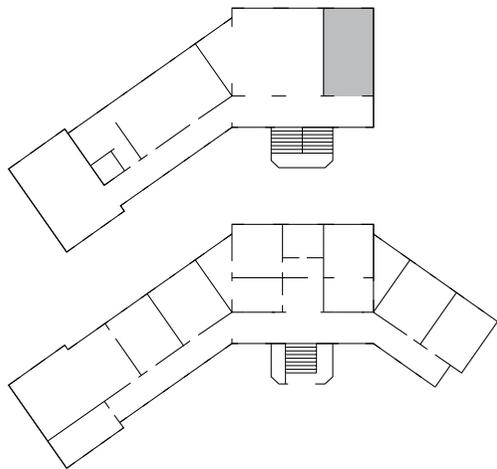
*Notes on Representation – Vol.8, 2017*

21 × 28 cm, 96 pages

Roma Publications



Room III



III-i

*Tree Lines*, 2015

acrylic on canvas

4 paintings, 250 × 190 × 3.5cm each



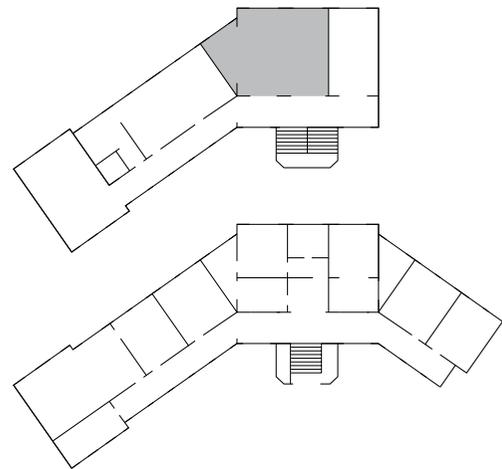


III-ii

*Gornergletscher from On Top, Figure 26, 2017*  
porcelain, 80 × 50 × 1 cm



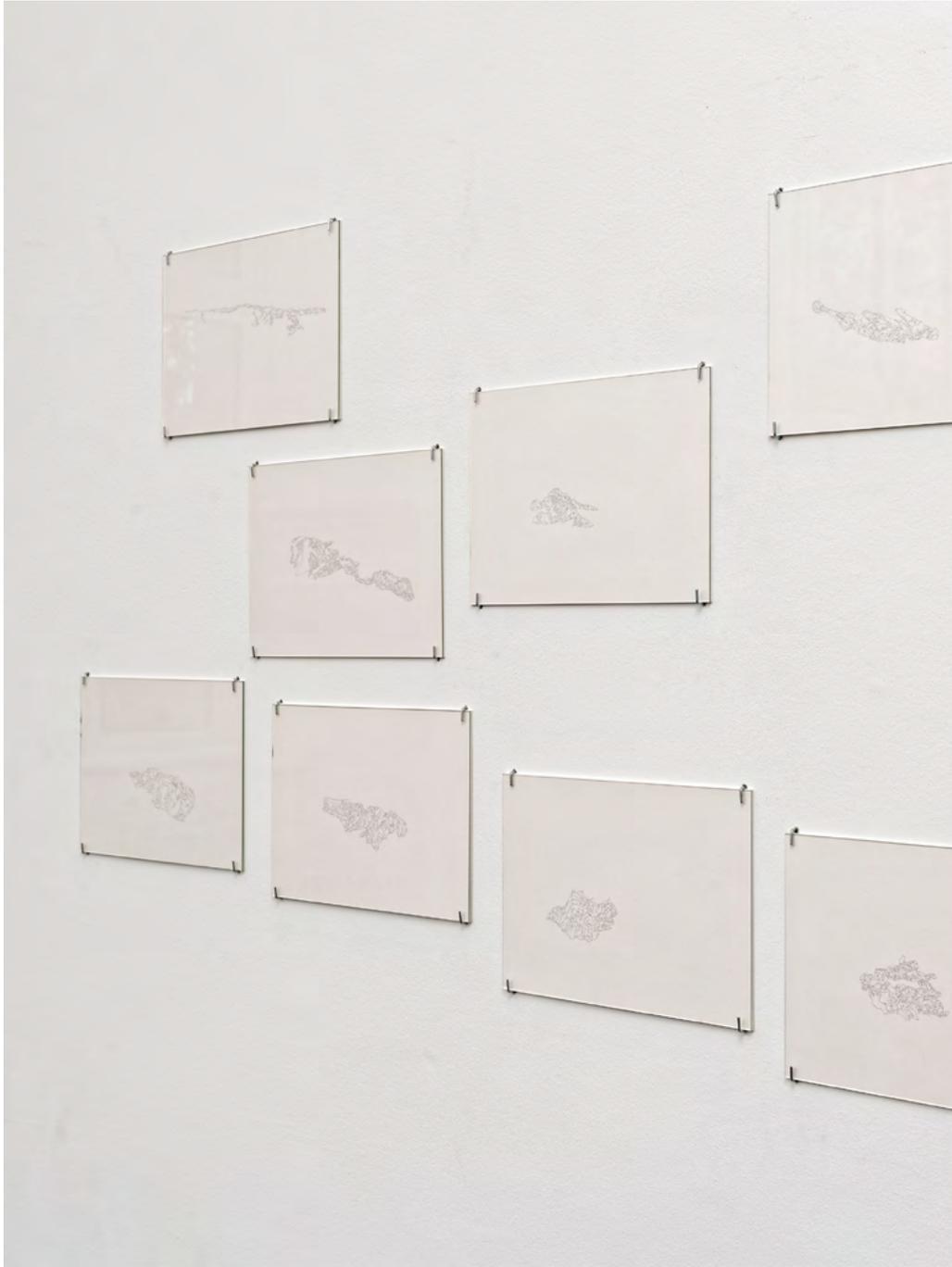
Room IV

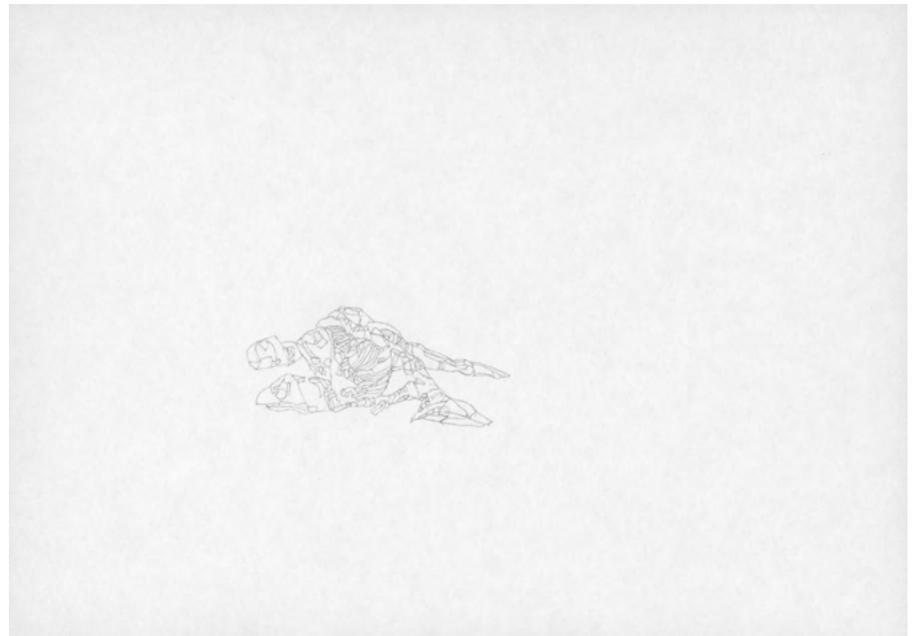
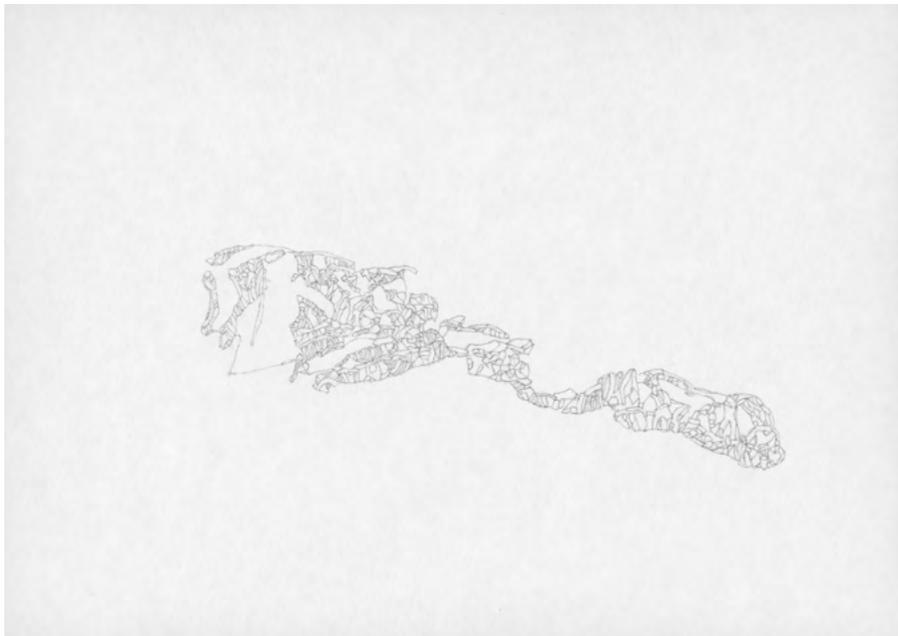
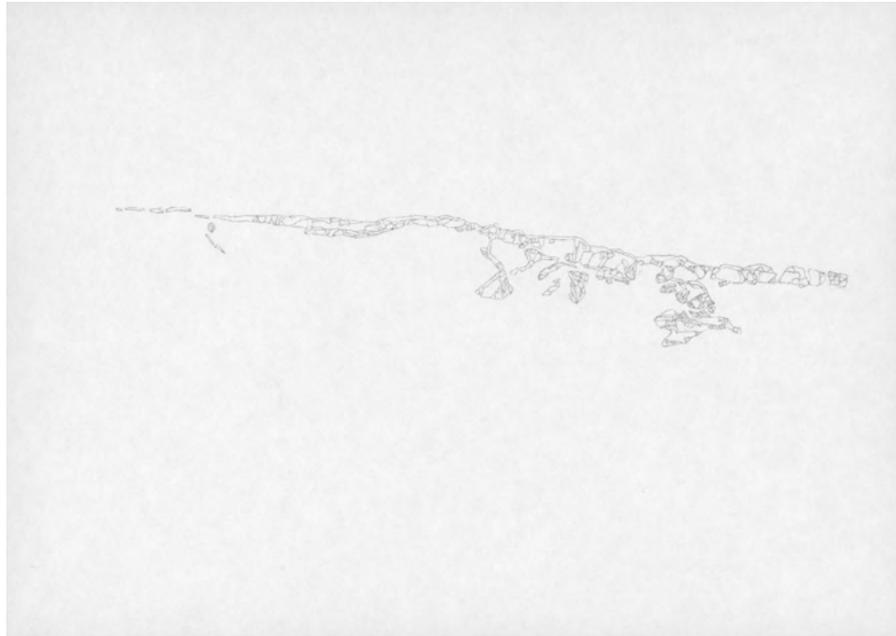


IV-i

*Gornergletscher from On Top*, 2014  
pencil on paper  
28 drawings, 21 × 29 cm each  
115 × 456.5 cm (assembled)









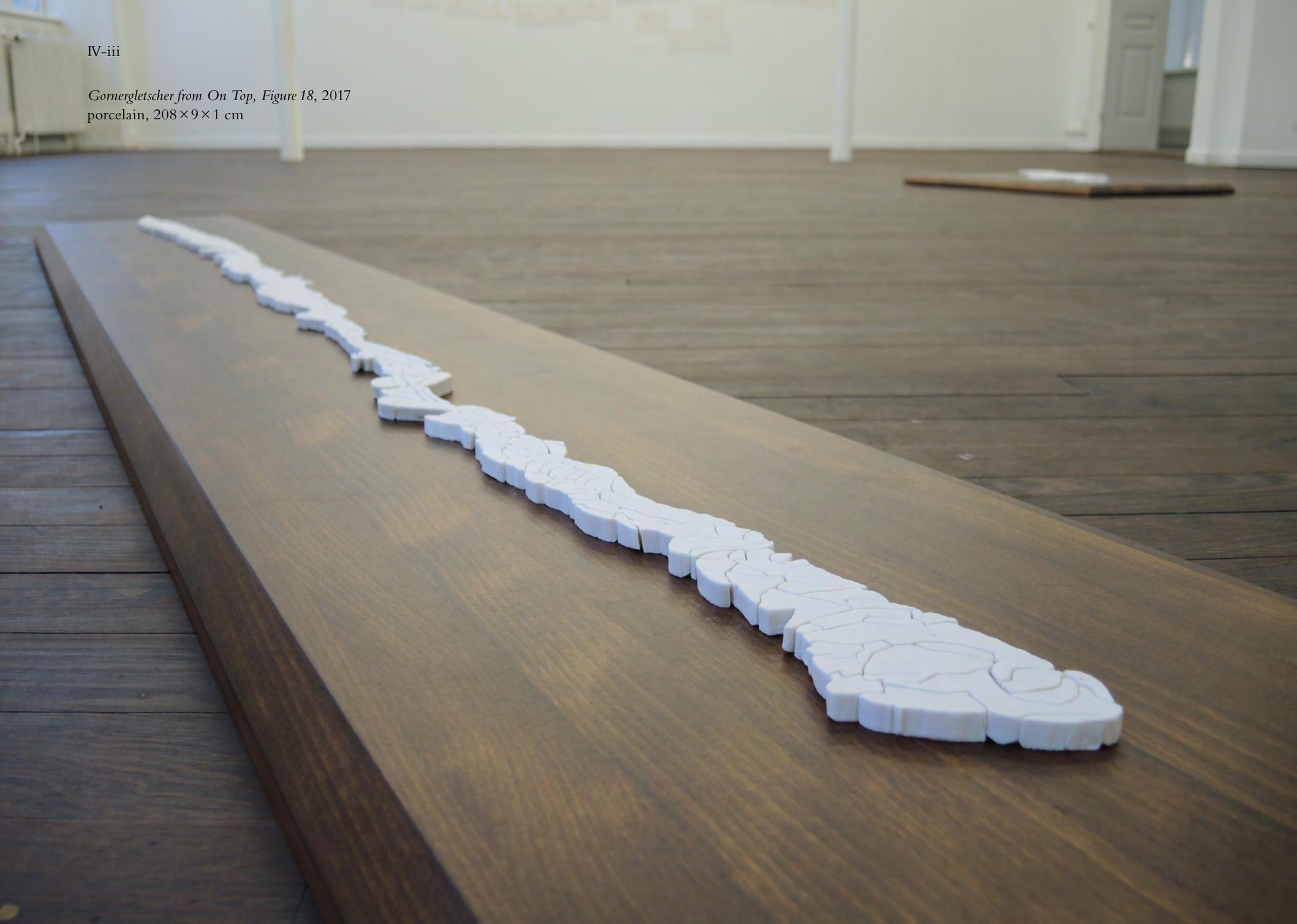
IV-ii

*Gornergletscher from On Top, Figure 20, 2017*  
porcelain, 74×56×1 cm



IV-iii

*Gornergletscher from On Top, Figure 18, 2017*  
porcelain, 208×9×1 cm



IV-ii

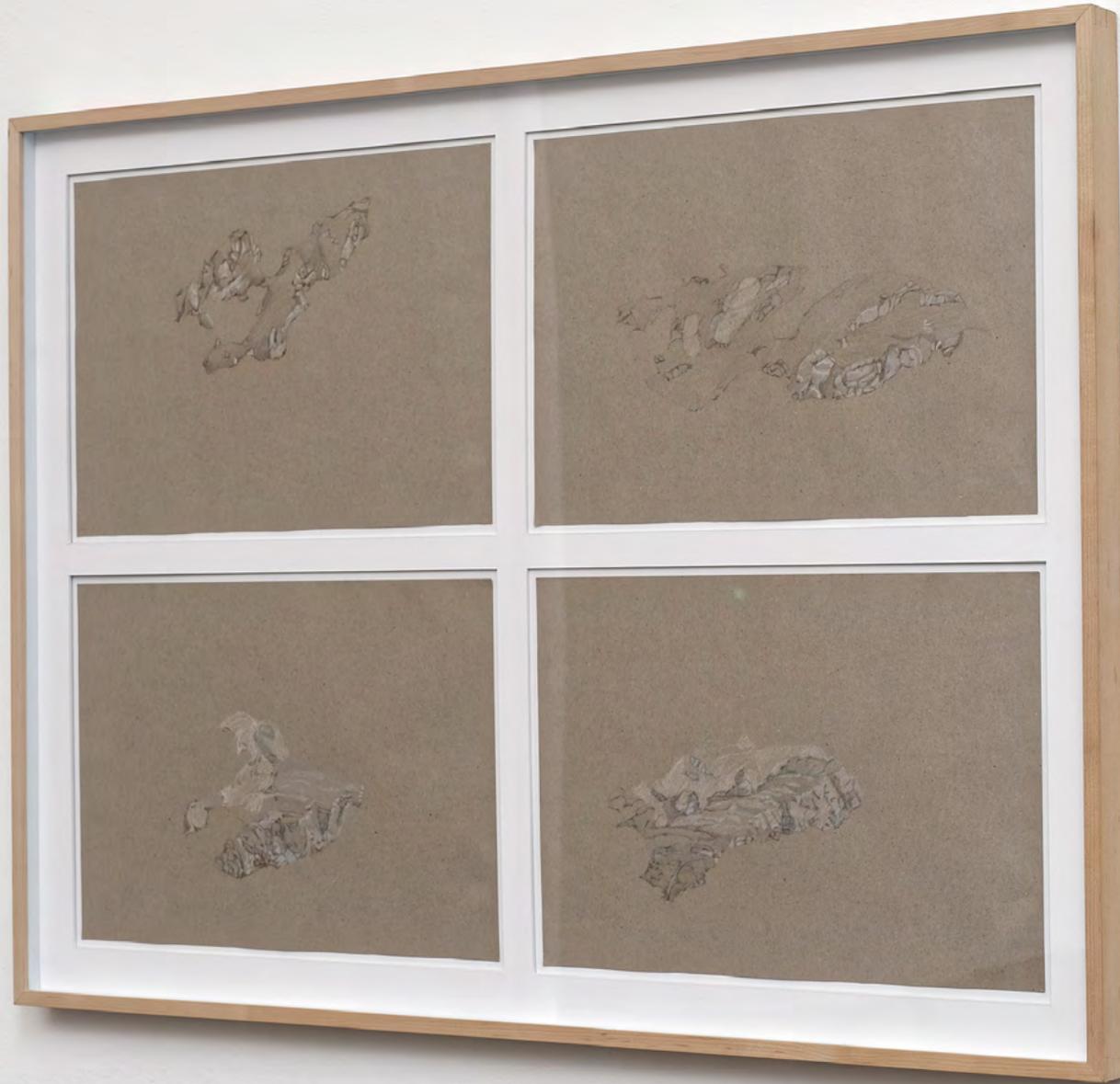


IV-iii



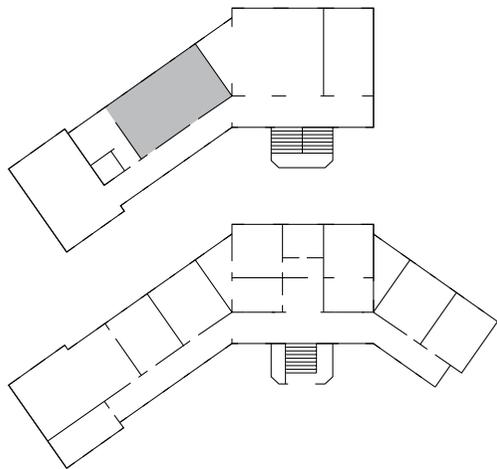
IV-iv

*View from Grosser Aletschgletscher*, 2013  
coloured pencil on paper  
4 drawings, 30 × 42 cm each  
74.5 × 98.5 cm (framed)





Room V



V-i

*Gornergletscher from On Top, Figure 13, 2017*  
porcelain, 91 × 48 × 1 cm



V-ii

*Tree Lines Davos, Two Slopes from On Top*, 2012–2014

watercolour on paper

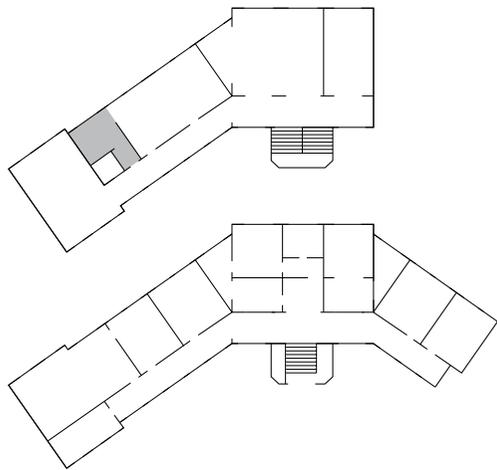
8 drawings, 40 × 30 cm each

2 frames, 145 × 200 cm each





Room VI



VI-i

*Gornergletscher from On Top, Figure 8, 2017*  
porcelain, 110×26×1 cm



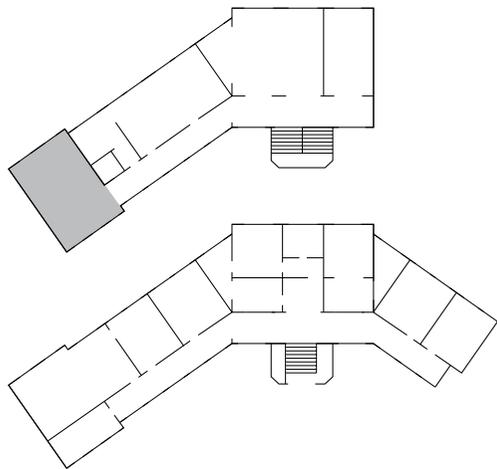
VI-ii

*Rhône Glacier Moraine*, 2017  
coloured pencil on paper  
3 drawings, 35 × 47 cm each (framed)





Room VII



VII-1

*Tree Lines*, 2015  
acrylic on canvas  
4 paintings, 250 × 190 × 3.5 cm each





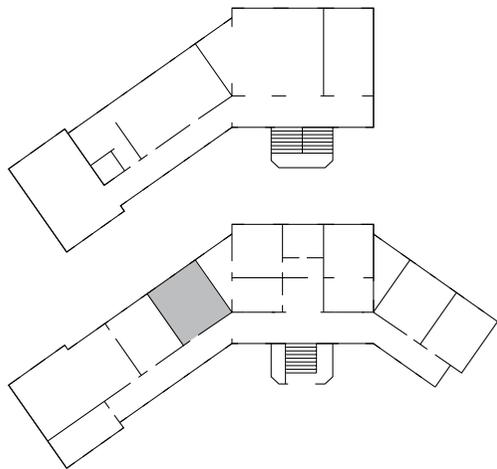


VII-ii

*Gornergletscher from On Top, Figure 2, 2017*  
porcelain, 167 × 60 × 1 cm



Room VIII



VIII-i

*Tree Lines Davos, Two Slopes from Below, 2014*

coloured pencil on paper

10 drawings, 30 × 30 cm each

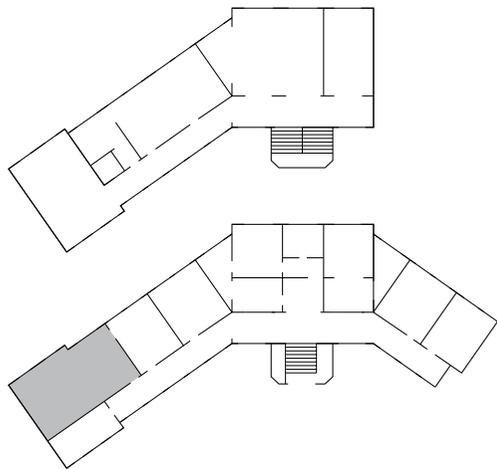
2 frames, 178.5 × 42.5 cm each





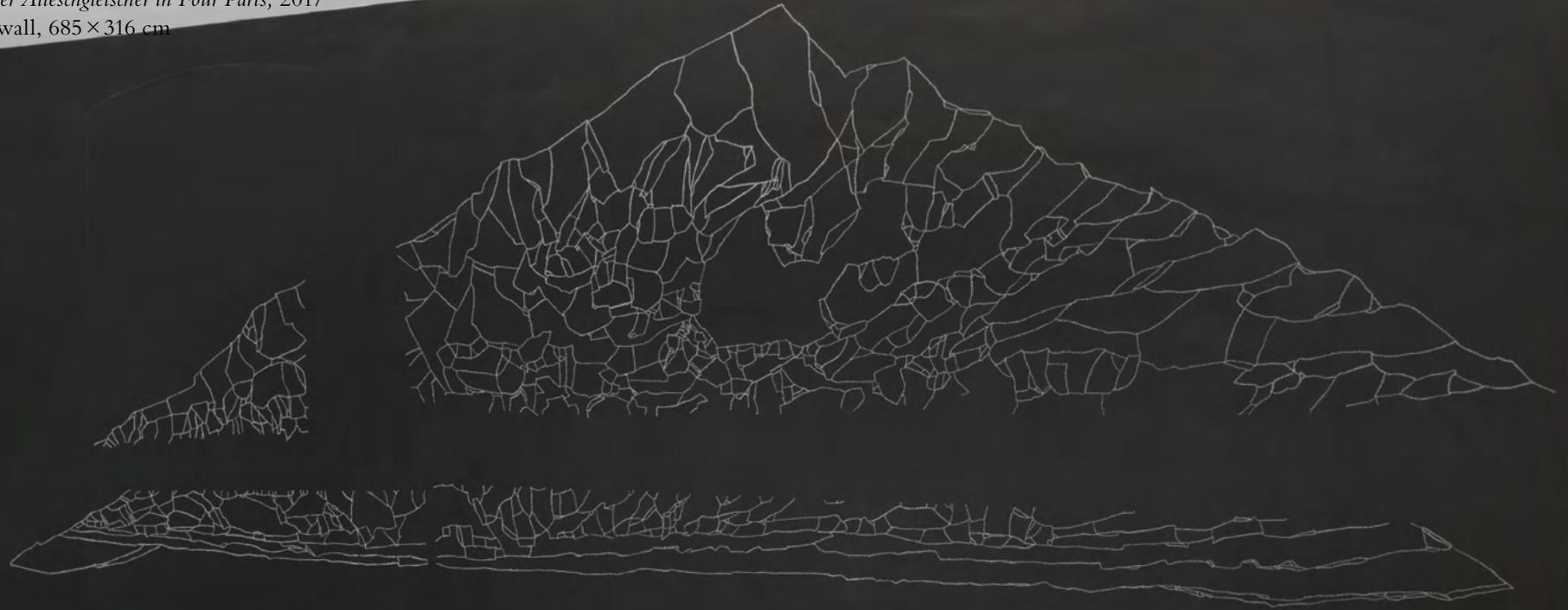


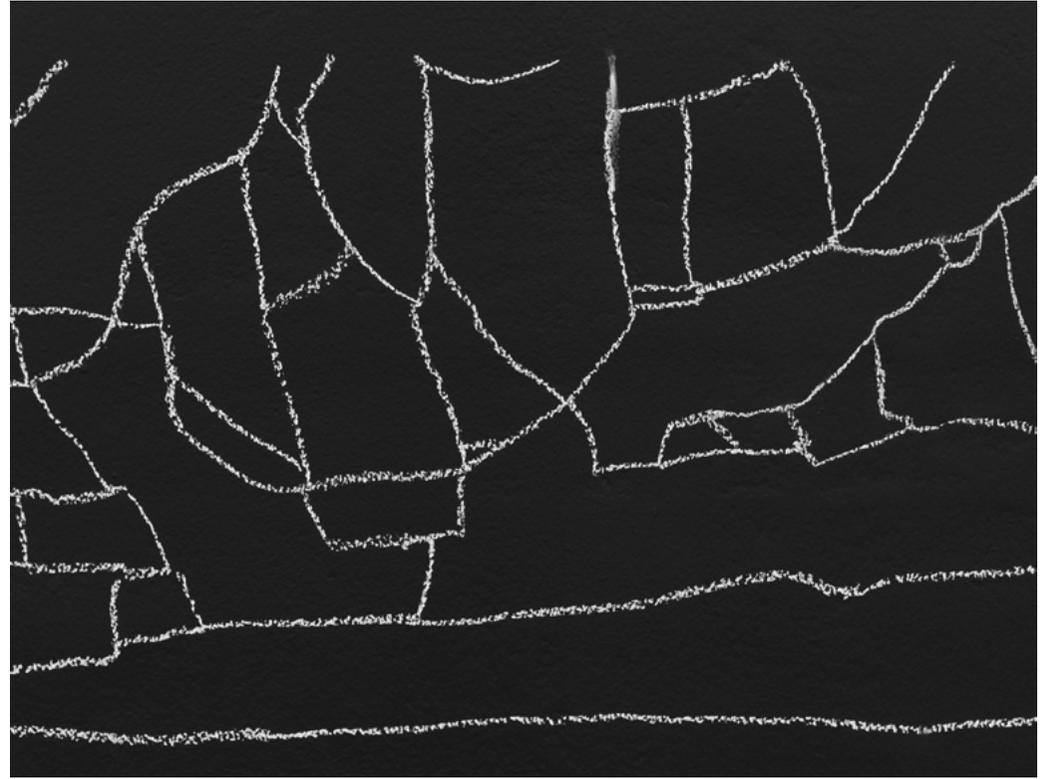
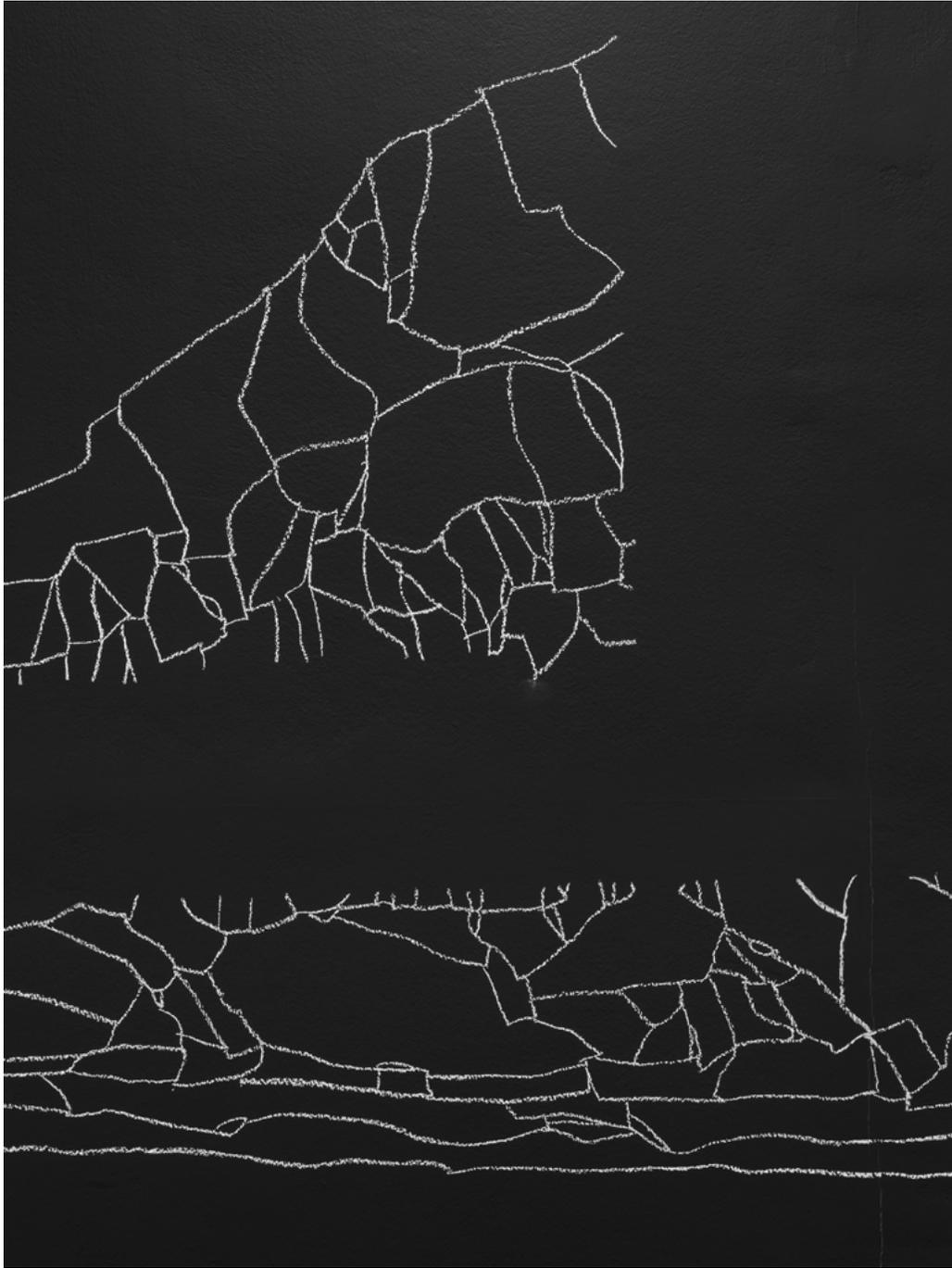
Room IX

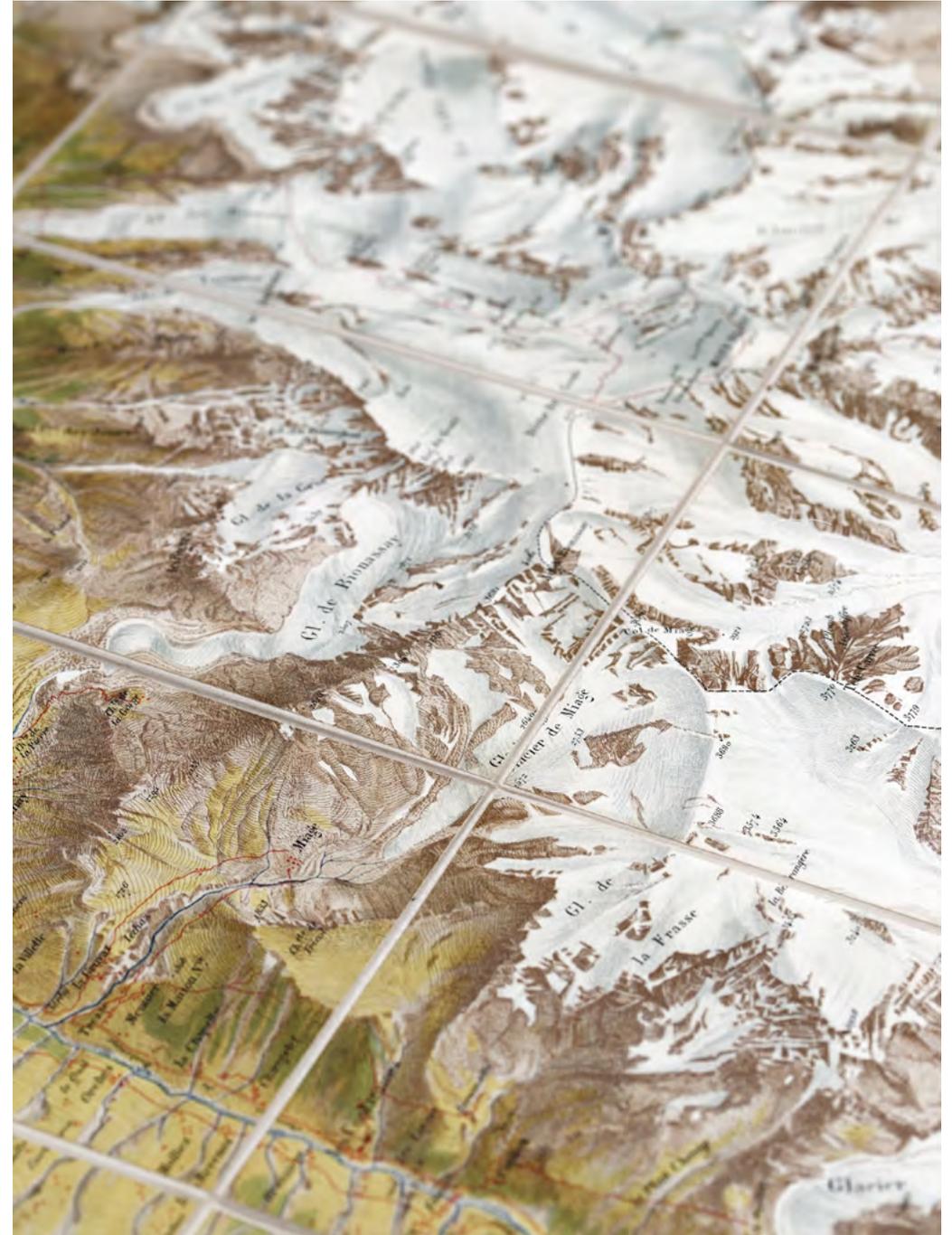


IX-vii

*View from Grosser Alteschgletscher in Four Parts, 2017*  
chalk, painted wall, 685 × 316 cm



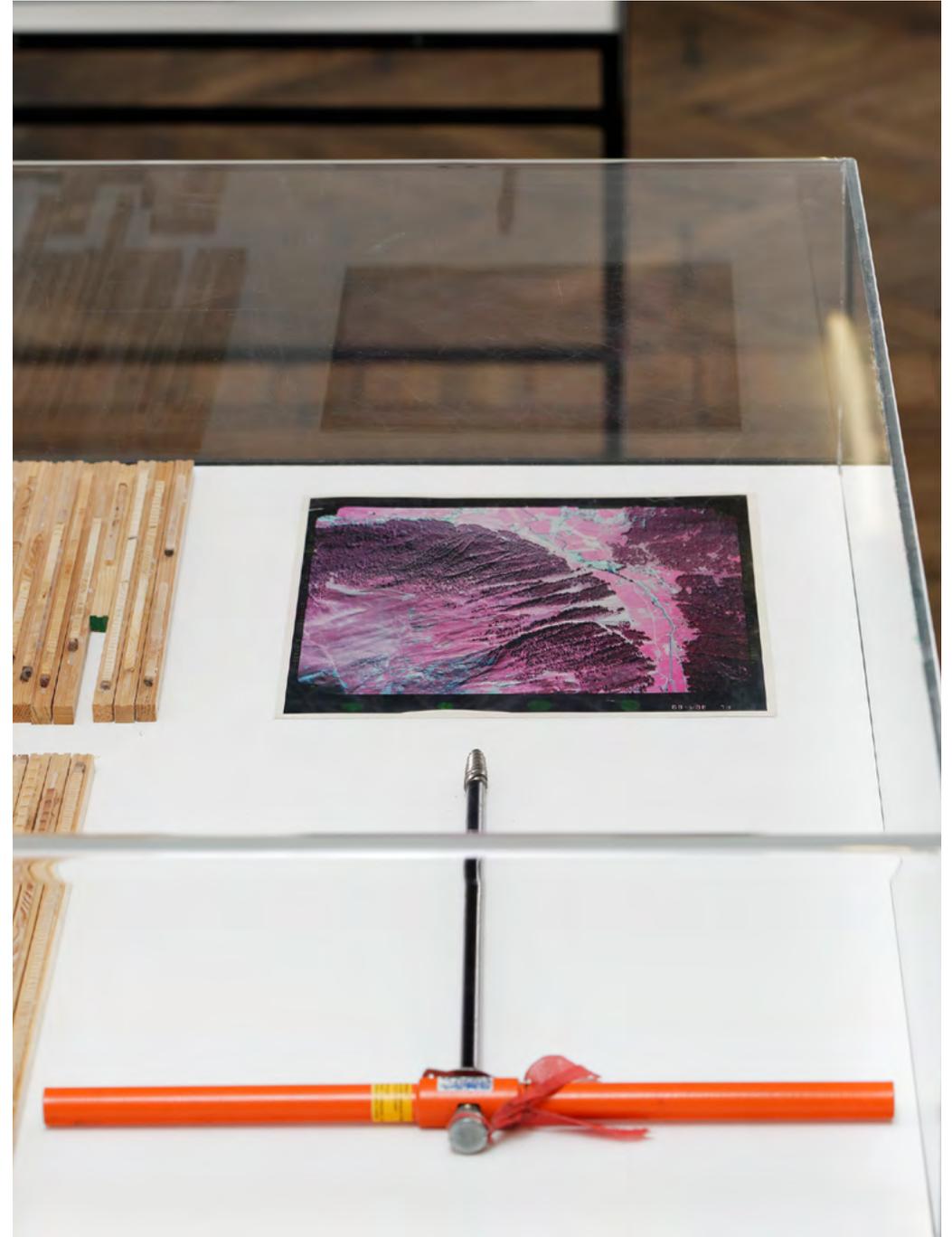




Eugène Viollet-Le-Duc, *Le Massif du Mont-Blanc*, 1876  
map drawn at 1/40000ème, 104×124 cm, ed. Baudry, Paris



- Horace-Bénédict de Saussure, *Voyages dans les Alpes*, 1779–1796  
- Henri Hogard, *Recherches sur les glaciers et sur les formations erratiques des Alpes de la Suisse*, 1858



Scientific Material: increment borer (1), infra-red photo (2), tree core samples (3), tree cross sections (4).  
Trees *Larix decidua* and *Picea abies*, Davos.

Exhibition booklet

Irene Kopelman – *On Glaciers and Avalanches*  
17×24 cm, 16 pages



A year-long residency at the Foundation Laurenz House in Basel, Switzerland, from October 2012–October 2013, resulted in an interconnected project concentrating on glaciers and avalanches.

Glaciers had already been an essential part of the project “50 Meters distance or more” which departed from my trip to the Antarctic territory in 2010.

After my return from the expedition I got in touch with Prof. Dr. J. (Hans) Oerlemans from the Institute for Marine and Atmospheric Research Utrecht (IMAU) in an attempt to understand the complexity of glaciers. At the beginning of my residency in Switzerland I joined Hans Oerlemans for a hike at the Morteratschgletscher, where I started to understand the physicality of glacier changes. This first experience was followed by visits to archives, museums, and dialogues with different institutions related to glacier and snow studies.

One of these institutions is the World Glacier Monitoring Service (WGMS). For more than a century, the WGMS and its predecessor organizations have been collecting standardized data on changes in mass, volume, area and length of glaciers (glacier fluctuations), as well as statistical information on the distribution of perennial surface ice in spatial dimension (glacier inventories).

With the invaluable help of Michael Zemp (Director WGMS, PD Dr. sc. nat.), Dr. Samuel Nussbaumer and Dr. Isabelle Gartner-Roer, and through my participation in the Summer School on Mass Balance Measurements and Analysis 2013,\* I was introduced to different

levels of understanding glacier studies, such as the reading/visualization of the landscape and the political implications embedded in the perception of it. One of the most striking details I came across in glacier research, is the use of art-historical sources as a tool for reconstructing past glacier behaviour. Systematic and precise data about glacier fluctuation is reflected in the works of artists such as Samuel Birmann (1793–1847) who extensively documented the Unterer Grindelwaldgletscher and the Mer de Glace, even before the study of glaciers became relevant in modern scientific studies.

Long-term glacier observations help to give insight in processes of climatic change and provide fundamental information with respect to the possible effects of atmospheric changes (e.g. warming). There is an accelerating loss of mountain glaciers in most parts of the world. According to Prof. Wilfried Haeberli, the long-term research that has been carried out in the Alps confirms that the disappearance of many mountain glaciers is likely to be a matter of a few decades.

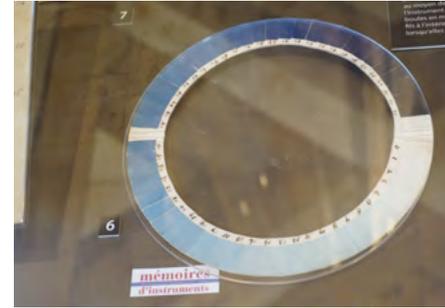
\* From 2–7 September 2013, the WGMS organized a Summer School on Mass Balance Measurements and Analysis. The course was restricted to about a dozen participants from the Andes and Asia who are involved with ongoing mass balance programmes in their region. The participants were trained in both field and office work by an international team of experts in glacier monitoring and capacity building. This summer school was carried out within the framework of the project “Capacity Building and Twinning for Climate Observing Systems” (CATCOS) which is led by MeteoSwiss and funded by the Swiss Agency for Development and Cooperation (SDC). For more information, see: [www.wgms.ch/mb\\_summerschool.html](http://www.wgms.ch/mb_summerschool.html)



Research

Musée d'Histoire des Sciences, Geneva

Last image:  
Muséum d'Histoire Naturelle de la Ville de Genève



Kunstmuseum Basel



Landscape

From left to right:

Grosser Aletschgletscher

Findelengletscher and Klein Matterhorn

Rhonegletscher



From left to right:

Findelengletscher and former tributary Adlergletscher

Grenzgletscher, Schwarzeg-, Breithorn-, and Theodulgletscher

Grenzgletscher and Gornergletscher



During spring and summer (2013), when the snow had melted, I could start walking and drawing in the mountain landscape. On a few occasions I joined the WGMS activities, at other times I went by myself, thus giving time to not only learn about this landscape but also to contemplate it and to get a sense of it. From within these immense, monochrome landscapes it was not always easy to define what to draw. The ice-sheet surface has different textures that give the impression of various forces operating within such a massive material. I settled for drawing small zones with a different texture than the surrounding areas.

Another institute I collaborated with was the Swiss Federal Institute for Snow and Avalanche Research, SLF, Research Unit Community Ecology, Mountain Ecosystems (part of the WSL).

The Swiss Federal Institute for Snow and Landscape Research, WSL, comprises a number of research departments (and predecessor organizations) in an effort to study the Swiss mountain landscape. The Central Institute for Forest Research was founded in 1885 and was primarily concerned with forest management, forest protection, and the protective function of the forest against flooding. The Avalanche Research Commission was founded in 1931, and resulted in the first snow laboratory, built on the Weissfluhjoch (Davos) in 1936. From its onset, the Snow Laboratory in Davos has been concerned with the study of avalanches, hydrology and snow research. Today its core subject is still snow, not only as a hazard but now also as an endangered resource.

One of the most important ecosystem boundaries is the upper alpine tree line—the zone between subalpine forests and alpine

meadows. Scientific interest in tree lines is increasing, as changes in tree line position have important implications for mountain ecosystems. Its animal and plant species, though accustomed to harsh environmental conditions such as long-lasting snow cover, short growing seasons and disturbances such as avalanches, may react sensitively to climate changes, land use and disturbance regimes.

As part of this project, and with the vital help of Dr. Peter Bebi, Dr. Alejandro Casteller and Lisa Erdle of the SLF research unit, I joined in the field work (focusing on mountain ecosystems above and below the tree line) and the research (connecting links between ecosystem research of the WSL and avalanche topics of the SLF in Davos). Peter, Alejandro, and Lisa introduced me to a very specific “reading” of the landscape. Walking with them through the mountains was an eye opener to the way one can read the history of a place, sometimes just by observing. The correlation between the forest forms (its outlines) and the avalanches is strikingly visual. During the fieldwork I was introduced to the scientific systems of data collection, and the further processing of it afterwards.

I realized two trips to the mountains in Davos, during which I sat and drew from opposite slopes of the mountains. I could then draw what I had in front of me: the shape of the forest, and the way in which the avalanches, the light and the wind have defined the morphology of the forest.

All the pieces were made in the field, besides the series of paintings which was produced in Casa Wabi, a residency program situated near the town of Puerto Escondido along the Pacific coast of the State of Oaxaca, Mexico.

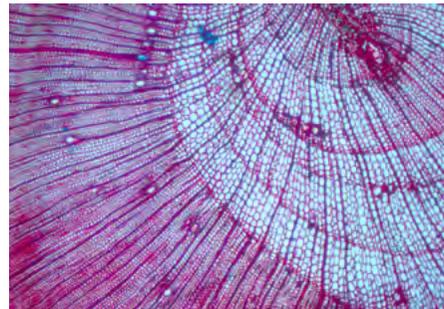


Research

Tree ring cores on wooden core mounts



First image:  
Cross-section was taken from a *Pseudotsuga menziesii* tree in a torrent located at Brazo Huemul of Nahuel Huapi lake, Neuquén province



Landscape

South-facing slope of Dischmavalley



North-facing slope (Stillberg)



Related exhibition

## ***On Glaciers and Avalanches***

Galeria Labor (Mexico City, Mexico)  
November 2015 – January 2016



Related exhibition

## *On Glaciers and Avalanches*

ETH Zurich (Switzerland)  
April – June 2018



Related exhibition

## ***On Glaciers and Avalanches***

ETH Zurich (Switzerland)  
April – June 2018

*Poster project, 2018*

ColorWave prints on 80g/m<sup>2</sup> uncoated paper  
841 × 1189 mm (A0) each  
Edition of 3 + A/P



Irene Kopelman  
*On Glaciers and Avalanches*

Curated by:  
Juan Canela (exhibition CRAC Alsace)  
Linda Schädler (exhibition ETH Zurich)

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Elli Humbert (exhibition CRAC Alsace)  
Ramiro Chávez (exhibition Galeria Labor)  
Livio Baumgartner (exhibition ETH Zurich)

Research assistant:  
Cathy de Haan

Production Porcelain Piece:  
Le Maupas A.R. (Artist Residency for  
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Oerlemans from the Institute for Marine and  
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PD Dr. Michael Zemp, Dr. Samuel Nussbaumer  
and Dr. Isabelle Gartner-Roer from the World  
Glacier Monitoring Service (WGMS);  
Dr. Peter Bebi, Dr. Alejandro Casteller and  
Lisa Erdle from Swiss Federal Institute for Snow  
and Avalanche Research (SLF); Boris Hirmas  
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Pauline Dillon, Camille Hadey, Eglantine  
Gilardoni and John Mirabel.

For the exhibition at Galeria Labor I'd like to  
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Yolanda Silva Cordero, Mauricio Cadena,  
Mariana Güell and Erick Omar Francisco  
Morales.

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