MEASURING RAPID STILLNESS

alexis porten | spring 2016 | arch 489

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one must have a mind of winter
to regard the frost and the boughs
of the pine-trees crusted with snow;

and have been cold a long time
to behold the junipers shagged with ice,
the spruces rough in the distant glitter

of the january sun; and not to think
of any misery in the sound of the wind,
in the sound of a few leaves,

which is the sound of the land
full of the same wind
that is blowing in the same bare place

for the listener, who listens in the snow,
and, nothing himself, beholds
nothing that is not there and the nothing that is.

the snow man | wallace stevens || 1954

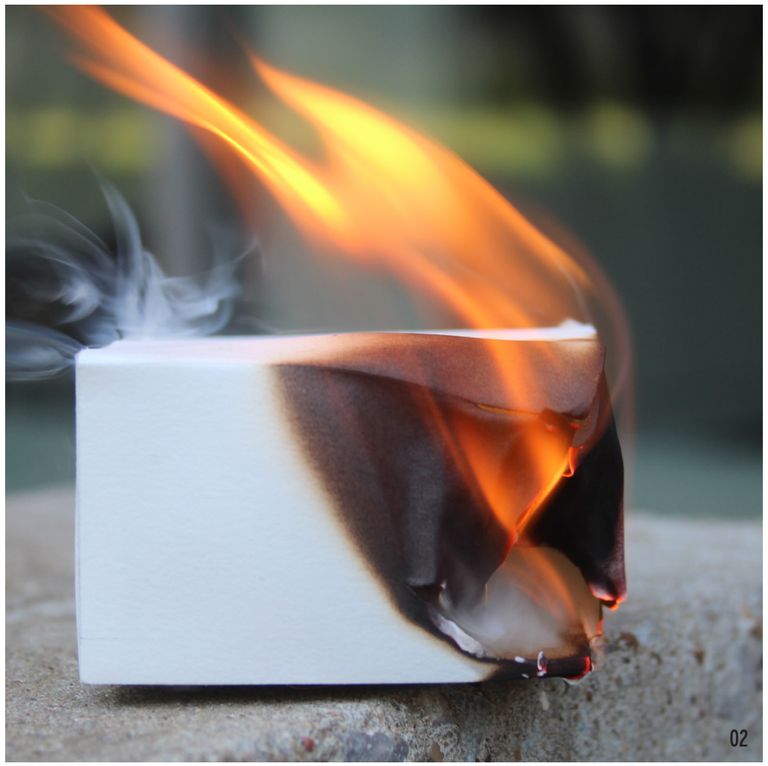
IMAGE: Allen, S., McQuade, M., & Princeton University. (2011). Landform building: Architecture's new terrain. Baden, Switzerland: Lars Müller Publishers. Page 73

STATEMENT OF INTENT

In my final semester of my fifth year of design school I plan to take my travels abroad in Switzerland and my knowledge of architecture to explore the idea of borders, inaccessible distances between people and the environment and how design can make these concepts tangible. My project will be directed by multiple faculty in the College of Architecture and Design and I will work towards my final presentation on April 25, 2016. At this presentation and review, I will have developed drawings, site plans, renderings, collage and photographic as well as physical evidence of my investigation into the realm of invisibility. Throughout this process, I am also keeping up with a blog that I will be posting on daily and can be found at <alexisporten.tumblr.com>. This will help to keep the written portion of my thesis, which is highly important to me, organized and archived. I will be studying the physical conditions of the forest and the glacier as two landscape elements that are retreating and advancing, blurring the lines of edge condition and borders. The result of this process will bring me closer to comprehending a culture far different than my own and, in turn, I hope to find beauty in the study of antithesis in proving my ideas on the residual breakage that exists when trying to fully understand one another.

WRITING

This project exists both in the built environment as well as through written analysis. The following pages are taken directly from my blog. Each entry is dated and the sequential analysis uncovered through my own thought process is clear. I found the writing portion of my thesis to be just as integral to the project as the formal design.



rapid stillness | 02 november 2015

how do we avoid the wastefulness of space?

by building something that will react. something that will move if it needs to move, that will gather its surroundings and distribute its spirit. that will adjust to the changes in culture. we must react to the stolen land and make it worthwhile and allow it to teach us something. and when it fails, when it becomes obsolete, find a lesson there, too. because in lessons is relevance and timelessness. in lessons are folklores and fox weddings. occupy the negative space in a way that brings meaning to the positive space, allow the space between the pointed moments, the rapid stillness of our changing environment, to inform the moments of cultural and historical importance. allow the building that waits for the avalanche to exist in the spirit of waking. so that when it falls, or is disassembled, or is caught in the rain or the forest fire, it reacts because it was made to react.

the making of the constructed object correlates to the cosmographic inevitability of time.

architecture as a residual piece of the landscape.culture, i look towards that which cannot be permanently contained. i wander to the forest and i wander now to the glacier. in these landscapes, all of my ideas on edge and the fluid seam are tangible to me. i can collect the physical evidence to infinity, i can design that which will collect and release like the glacier. this settles my mind.

in disappearing, we leave evidence. we erect monuments in the place of memory, as if we will forgot that which towers over us.

the glacier vs. the forest | 05 november 2015

at first, the alps were not the alps at all, but a mass of shifting tectonic plates covered in forested land, growing and shaping the landscape in boundless waves of growth.

enter the civilization: the people, in an effort to inhabit this land, these people start to clear cut and create an artificial timberline. the area above this line, they call the “alps”, or summertime meadow. this automatically suspends the notion of temporarility onto the mountain range. in the summer, this land is a pasture and in the winter it is a place to fear the avalanche, the impending snowfall and it is something to look at in awe. i call this the annual re-branding of the place.

in truth, our landscape is constantly re-branded as the culture that claims it continues to define and redefine the relationship we should have with nature.

our presence here is but the smallest and most fleeting moment. not small in impact. when we project ourselves and our needs onto the place in a way that is not sustainable. [not the mountain herder seeking refuge in the summertime fodder of the upper alps] we should be using the land in a way that factors in salvation. —we factor in the places we must save from ourselves—



invisible lines | 08 november 2015

we find comfort in the line between two things. comfort in categorizing and separating, suspending lines. the map holds dominion over the landscape, an inscription of invisible lines that exist to breach, to break. lines that find their permanence in their cultural significance. these portioned off divisions are easier to comprehend than wide open wilderness. the beauty of the wild is that the wild does not understand the invisible line. in trying to capture and segment, we can only idealize the landscape. the landscape will never succumb to the lines we draw.

this is why our constructed forms must sweep past national jurisdictions and land ownership. we have maps that divide and categorize, we construct architecture to cross these invisible lines.

frozen tidal waves | 09 november 2015

the landscape does not move in straight lines. it carves, bends, and folds.

waves crash against the shore in the rhythm of the lunar calendar.

glaciers coast across the land in a ritualistic way, because water is humanity and harnessing it is essential to life, we try to measure the coastal shifts of frozen water. [rapid stillness]

requiring the journey to view the landscape. [accessible distance]

the break from the field to the forest to the glacier to the stone to the view from the top of the mountain, the view that deprives us of the true measure of distance. [inaccessible distance]

we cross natural borders as quickly as we cross those determined by land ownership and enterprise. natural borders change more rapidly than we would like to admit. because admitting that borders can change means that we cannot control the dividing line, the line of the glacier is as fleeting as the retreating wave at high tide.

glaciers move in still tidal waves.



02

folklore | 17 november 2015

when a glacier breaks up in the high alps, the reverb is loud enough to tremble the earth and the people that live in the lowlands. the people fear the dragon that made this sound.

this is folkloric.

the transhumant farmer disappears and with this tradition, so does the invisible path. those temporal pathways [routes carved through the alpine meadow] made in the landscape are no longer understood because the accessible distance between the mark maker and the marking is beyond comprehension.

this is folkloric.

the glacier melts down further and further each year until there is no longer any frozen water to transition between phases. the residual impressions of the stone are without their mark-maker. the glacier becomes a legend, a lesson to be feared. a foxes wedding shower.

this is folkloric.

the mask is removed from the mountain, the veil is the replacement, the retribution, the startling piece of bright white cloth that hurts to look at in the summer sun.the path is no longer traveled, a bisection of the timberline becomes fragmented under the weight of cultural shifts and changes in agriculture. the rail is the replacement.[the veil and the rail will be the measuring device, they will be the visible marigraph of rapid stillness. because the distance between two borders defines its antithesis]

measurements | 22 november 2015

why do we insist on measuring the physical if not to record every variable we can in case they start to disappear? we measure the world around us in hopes of understanding and quantifying, in quenching the human desire to organize, categorize and divide. the way measuring tools are used reach across the broadest spectrum of scientific and cultural significance. to the point that the two, the real and the invisibility of culture, become transparent to each other and interdependent.

what if we measure the absence of something? what if we measure the disappearance at a rate that will allow us to end up with a residual mark of what once was in hopes that the living will believe the folklore, so that they will believe in the existence of glaciers, bare mountains and dragon flights.

"You shall not dwell in tombs made by the dead for the living...
For that which is boundless in you abides in the mansion of the sky, whose door is the morning mist, and whose windows are the songs and the silences of night."

Kahlil Gibran | The Prophet


02

striations | 23 november 2015

glaciers and forests show their age in visible striations. these layers of time and environment are only hidden by the most recent addition to the collection, the time line. we cannot document and measure the landscape in a way that is more collective than that of the tree's summer growth rings or the small pockets of ancient air caught inside a sheet of glacial ice.

when a leaf, a twig, a flower leaves its origin point, its placement in this time line becomes blurred. this moment of detachment from stability is the most noteworthy moment, this is when a broken blossom becomes lost and finds ice. glaciers capture these lost fragments of an ordered system and smooth their edges just as the glacial shifts across stone carve deep impressions. in tandem, the forest creates and matures the natural delicacies and the glacier consumes them. the glacier takes the carbon from the tree and holds onto it, so that when the human mind attempts to document time, all recognition of this tree can exist without the leaf.

centrality | 23 november 2015

in search of the center of the forest.

is the derivative of the forest edge the pith of the tree or the darkest undergrowth, where the light is hardest to find through compounded layers of growth? is the derivative of the forest the roots that grow underground and the faith that we have in these structural intricacies? i plan to spend time collecting and cataloging the layers of the forest at the human scale, because that is the measuring device that i can use most readily.

in scientific diagrams, forests are measured vertically from the underbrush to the highest canopy. on a walk in the forest, we transect these alleged boundaries and make a path. from this path, there are moments to collect and steal from the forest in ways that will define it. that will yield a definition of a place that is so far unknown. unknown only because the term “known” denotes a certain amount of data, facts and evidence. i will find the evidence.



lines |9 january 2016

Awoke from a dream of lines and how they hold me.

We rely on the line to take us places. And yet, the vessel will become obsolete if removed from the carved and plotted path that is occupies. From the baths of zumthor that trace the movement of water with light to the demarcation along the side of the road that marks edges in anticipation of the illegibility of snow to the response to my question of how to reach the glacier. (She looked at me and plainly stated “you follow the water”). The vessel is in anticipation of the water. It is the man made river, the thermal bath, the Avalanche shelves dotting the hillside, the skis and snow shoes. It is as inherent as the water itself. If the vessel is not awaiting water, it is awaiting movement. (I am still as the people of this place move around me.) They are able to move free of the train or the cable car or even the ski which marks the line retroactively, however, in speed is the route that I can trace. In the rapid movement along a predetermined path, I find evidence of an appreciation for repetition. For exact movement and the visual aspects of it all. These are the lines that they are not afraid of, these are the cultural comforts of their Swiss system.

and edges | 9 january 2016

I stare in one direction out of the window and this place unfolds itself around me. Everywhere, I find edges or the deprivation of the edge. The edges of the future building in the case of the poles with angled projections, indicating future space. The dual road markers that hold the edges of the road even under extensive snowfall. And with these very precise edges, there are the forgotten posts. The fence that does not enclose with valuable purpose. The posts in the middle of the forest which merely seem to divide a whole into smaller wholes. These are borders. Whether remembered or forgotten. Here they sit, all meaning lost. And on that awkwardness, that imprecision, I fixate. Because in a place where every action is carefully dictated, the uncontrollable becomes even more fascinating.



02

borders revisited | 14 february 2016

i keep this word in my mind constantly. because it is a word that is quickly defined as a line separating two things. two places, geographical, political.

this is a word that i have been holding on to since the very beginning and my understanding of this word is as fleeting and fluid as the border itself.

my architectural intervention, my earthwork, chooses to act as the antithesis of a border. because it is temporary, both in existence and purpose. the ideas of border and separation and edges lead me to topography, to the marked landscape of avalanche shelves and snow drift measurements. i'm not sure why this is. i just know that in my reaction to the unnatural, to the legally imposed separation between people and geographies and culture, i look towards that which cannot be permanently contained. i wander to the forest and i wander now to the glacier. in these landscapes, all of my ideas on edge and the fluid seam are tangible to me. i can collect the physical evidence to infinity, i can design that which will collect and release like the glacier. this settles my mind.

in disappearing, we leave evidence. we erect monuments in the place of memory, as if we will forgot that which towers over us.

movement and silence | 25 february 2016

in a culture, or a moment in time, when rapid movement is coveted and sound the resulting friction, the landscape stands still as it always has. the mountain produces the still silence that is lacking in the ever-rushing, ever-charged machine. why is this important? because without this, without the thermal baths, we would not be able to understand how loud our lives have become. this static canvas which permits power, energy and water to run through it is actually moving. it is moving slower than the rate of a phone call, slower than the rate of a google search engine. and yet, there is more information in these layers of ice | rings of a tree than a virtual cloud.

and if that is not a lie, if that is within the realm of reality, than i will teach you how to sit in silence and make these histories legible.

we must be retaught the definition of indefinite.

the definition of silence.



02

program revisited | 12 march 2016

field of harvest: at first, the pre-existing layers of glacial ice are harvested in a pattern that is attuned to an inverted orchard. in an ordered system that brings rigidity to the disappearing landscape.

transitory archive: in four parts, each archive is large enough to hold the ice cores harvested in a cycle and each previous cycle. these melt and recede naturally, leaving behind a structural column formation that is the interim orchard, the edge demarcation that waits in anticipation of the forest. way-finding points that define the temporary archive as a border.

alpine conservatory: the bank. the constructed form that sits above the treeline, nested into the cold mountain. the ice cores will eventually be redistributed into the “stein” [stone]. redistributed into the static object. that which escapes tidal waves. the collection that holds borders. [that which cannot grow without the small scale excavations, without the seams]

SITE ANALYSIS

Traveling to the Swiss Alps in the winter of 2015 was a catalyst for my site research and the development of my design thinking. I gathered physical evidence of the edge condition of both the forest and the glacier, taking photographic evidence of what I was stealing from the land. Furthermore, I constructed a series of matchbook cameras out of a matchbook, film, a tin can and an extensive amount of electrical tape. These images were developed when I returned in January. The light on the film left an impression of both the sound and atmospheric conditions of the site. The physical samples were re-organized into a measuring device that tracks both the object and the distance above sea level that the objects were found. This research style contributed to the final design of the glacial measuring system.

PHYSICAL SAMPLES



OBJECT NO. 18



OBJECT NO. 10

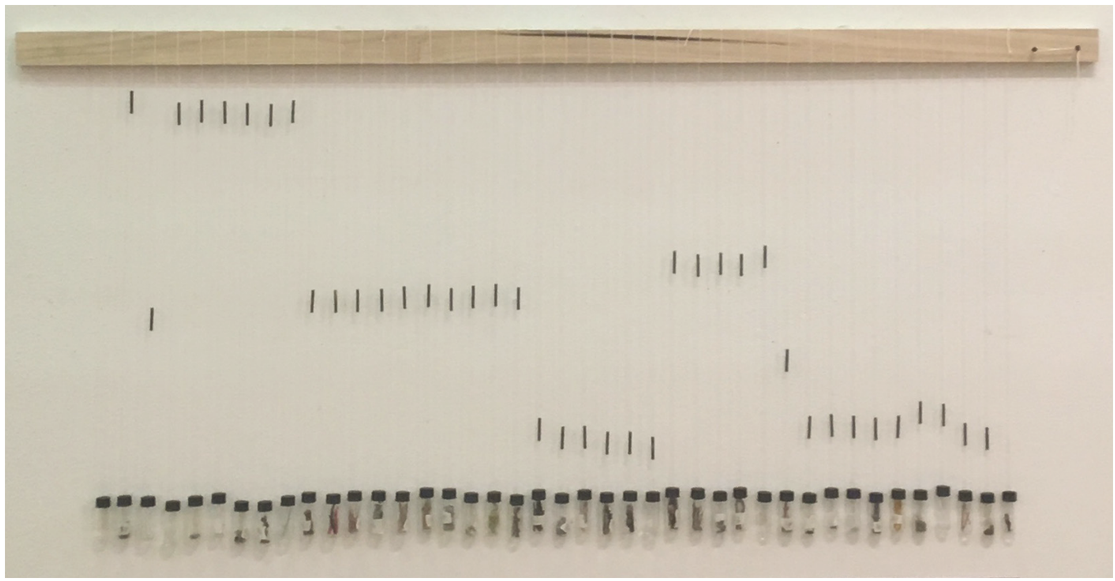


OBJECT NO. 14



OBJECT NO. 05


01
17
12





PROCESS | CAMERA AND OBJECT



PHOTO NO. 03



PHOTO NO. 07



PHOTO NO. 04



PHOTO NO. 08

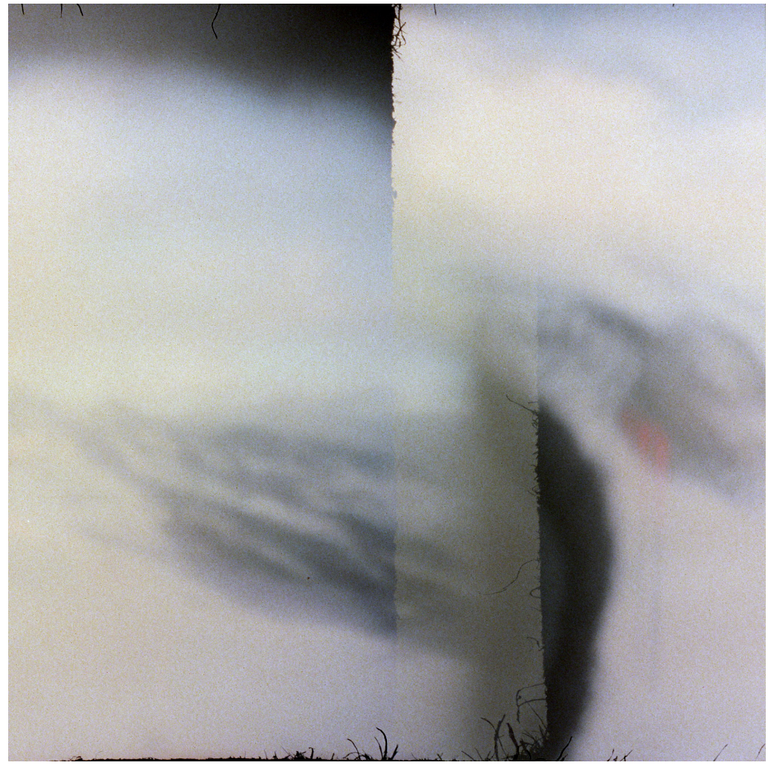


PHOTO NO. 09



PHOTO NO. 11



PHOTO NO. 14



PHOTO NO. 15



PHOTO NO. 17

CULTURAL MEASUREMENTS

In the Swiss system of punctuality and time-telling, there is a heavy influence to measure with precision. I am giving three examples of measuring devices that I discovered on my trip to Switzerland and through reading on the culture. There are measuring tools for the earth, the glacier and for anticipated loss, each more interesting and intrinsic than the last.



BAUGESPANNE

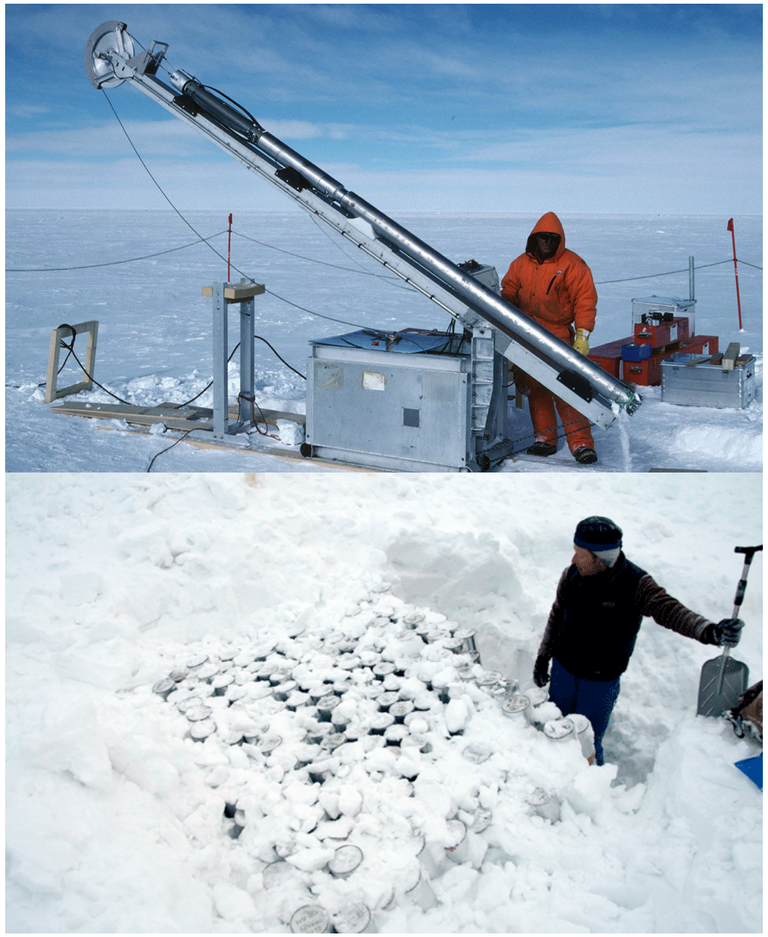
Baugespanne are used to measure the anticipated space of the built environment. These “construction markers” are put into place before a building is erected. These space markers give local stakeholders the chance to object to the proposed development and raise questions. These are integral to the building permit process and insure that the community is aware of any new additions to their environment.



IMAGE: Allen, S., McQuade, M., & Princeton University. (2011). Landform building: Architecture's new terrain. Baden, Switzerland: Lars Müller Publishers. Page 67

GEO_TEXTILE

Fabric is being used in the Alps to cover and protect receding glaciers from warmer, summer sunshine. These pieces of textile are implemented on the Rhone Glacier, one of the largest glaciers in Switzerland. This massive textile measures the size of protected area to the human eye, placing importance on the protection of this disappearing resource.



IMAGES FROM PALEOGLACIOLOGY.ORG
http://paleoglaciology.org/regions/Caucasus/IceCoreDrilling/

ICE CORE DRILLING

Cross-sections of glacial ice sheets are drilled out of the mountain and brought in to a lab to study the ancient atmospheric air trapped in the layers of ice. This drilling leaves behind a cylindrical cavity in the ice. Glaciers grow just like a tree, in thin, yearly layers. A glacier itself is a massive time-telling device and measuring system.

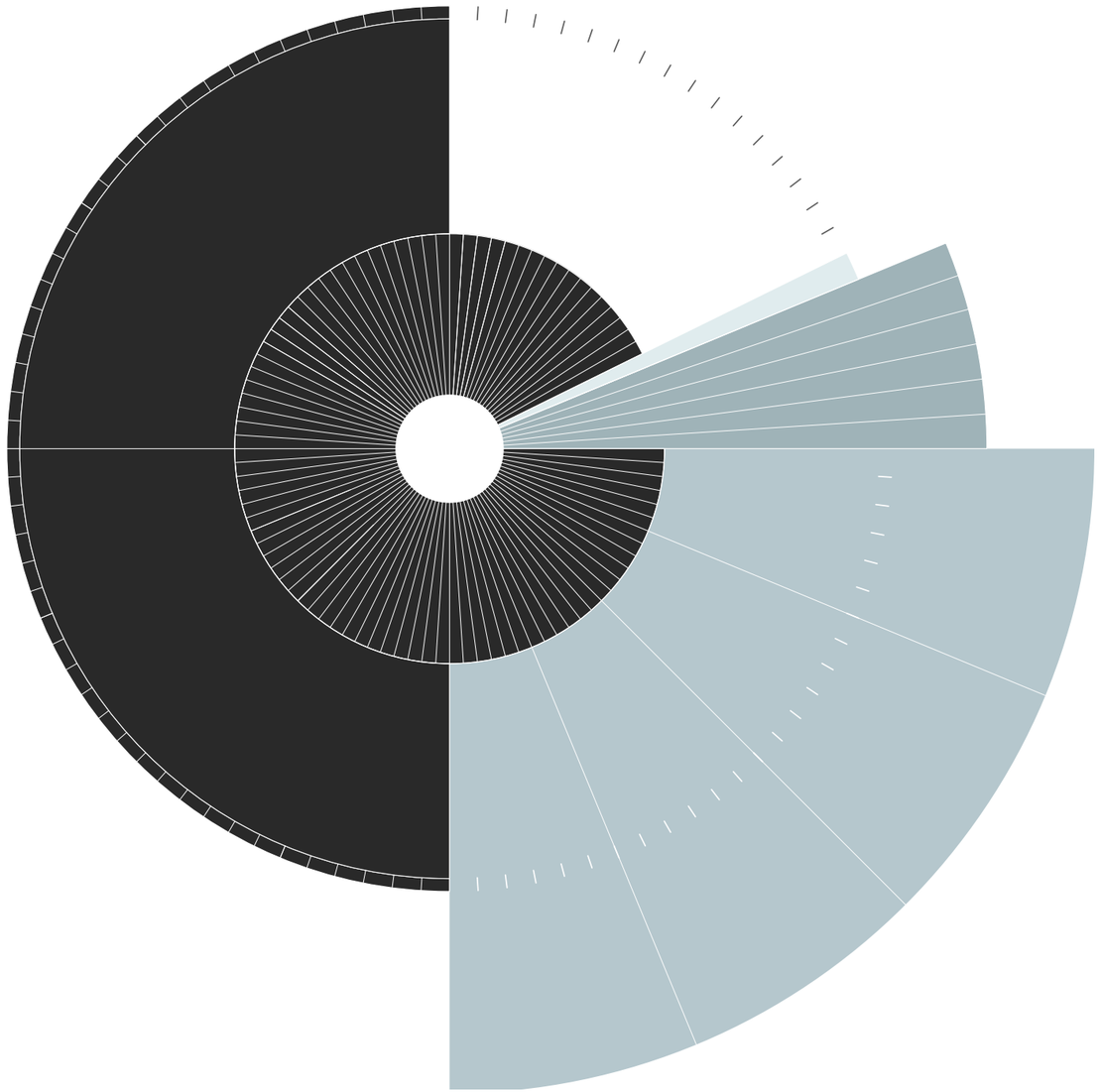
TIME CYCLES

Swisstopo, the national map-makers of the country of Switzerland, redistributes and measures the landscape every six years, producing a national map.

This map is the national map of Switzerland. The landscape earthwork will be constructed within this time frame, this continuum. this clock.

Every 6 years, a new edge will emerge and an old edge will become a border. a border devoid of origin. A border that now marks a void, the anticipated edge.

24 48 72 96



time measurements | adjusted to the re-drawing of swisstopo maps

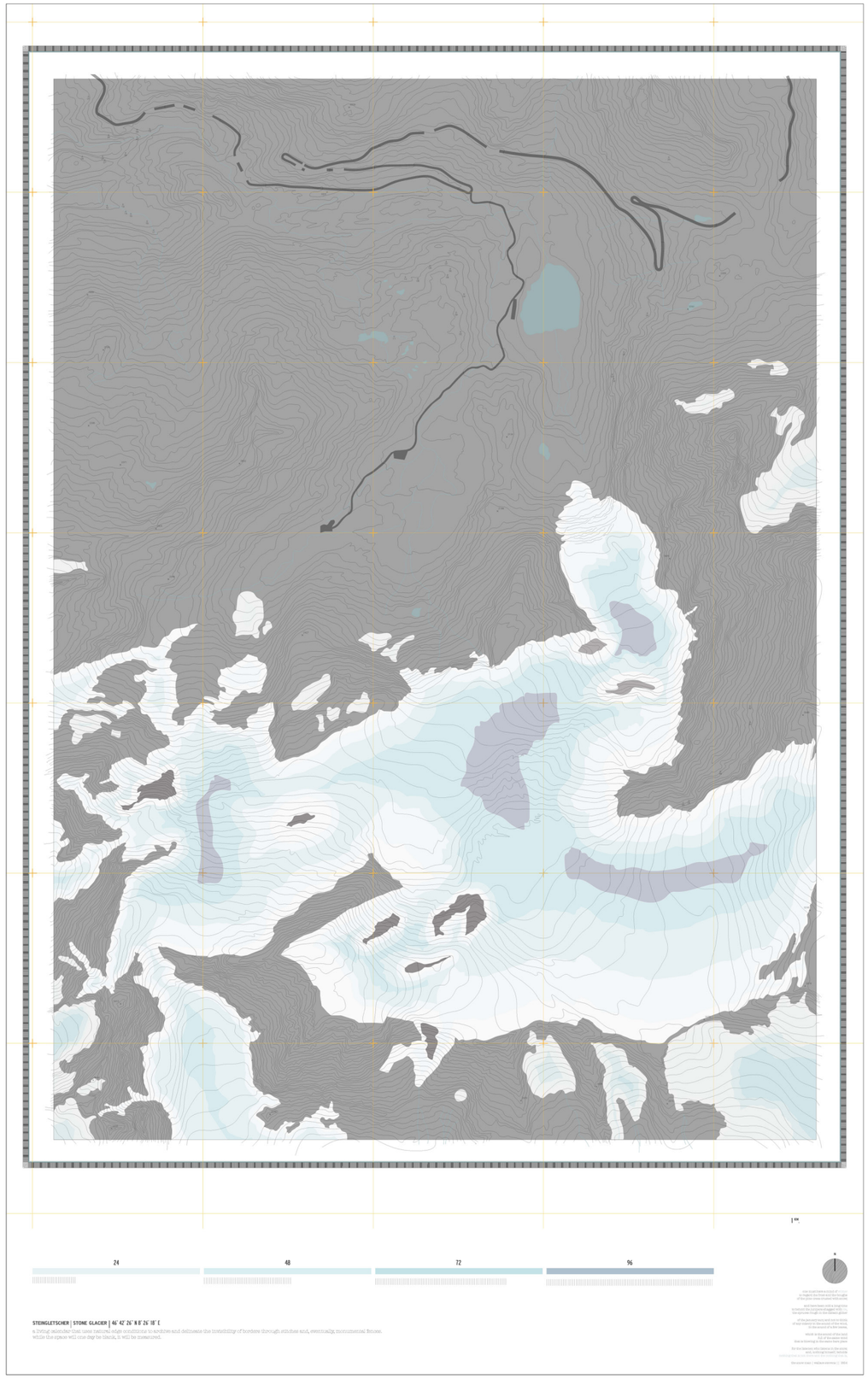
1 day | ice core archive
1 year | falsified veil
6 years | measured edge
24 years | addition to research center
1 century | forest and uncertainty

CULMINATION

to reduce it down to the simplest formal moves, a glacier is built slowly and in silence. each layer builds upon the layer of the moment before. while there must be an underlying structure that is relatively stable [stein/stone], that structure will reveal itself in the outermost skin of the glacier. the thinnest sheet of ice, the newest tree ring, is really just a revolved impression of the mountain beneath. the form is built of itself and within itself.

to build something of the ice, holding the ice, keeping the ice safe beneath the layers, that is how the glacier acts. and in turn, that is how the natural landscape works. this rapidly still movement of veil and re-veil is as consistent as frozen ice that is releasing ancient air. consistent in definition but not without the fragility of time. the fragility of the human.

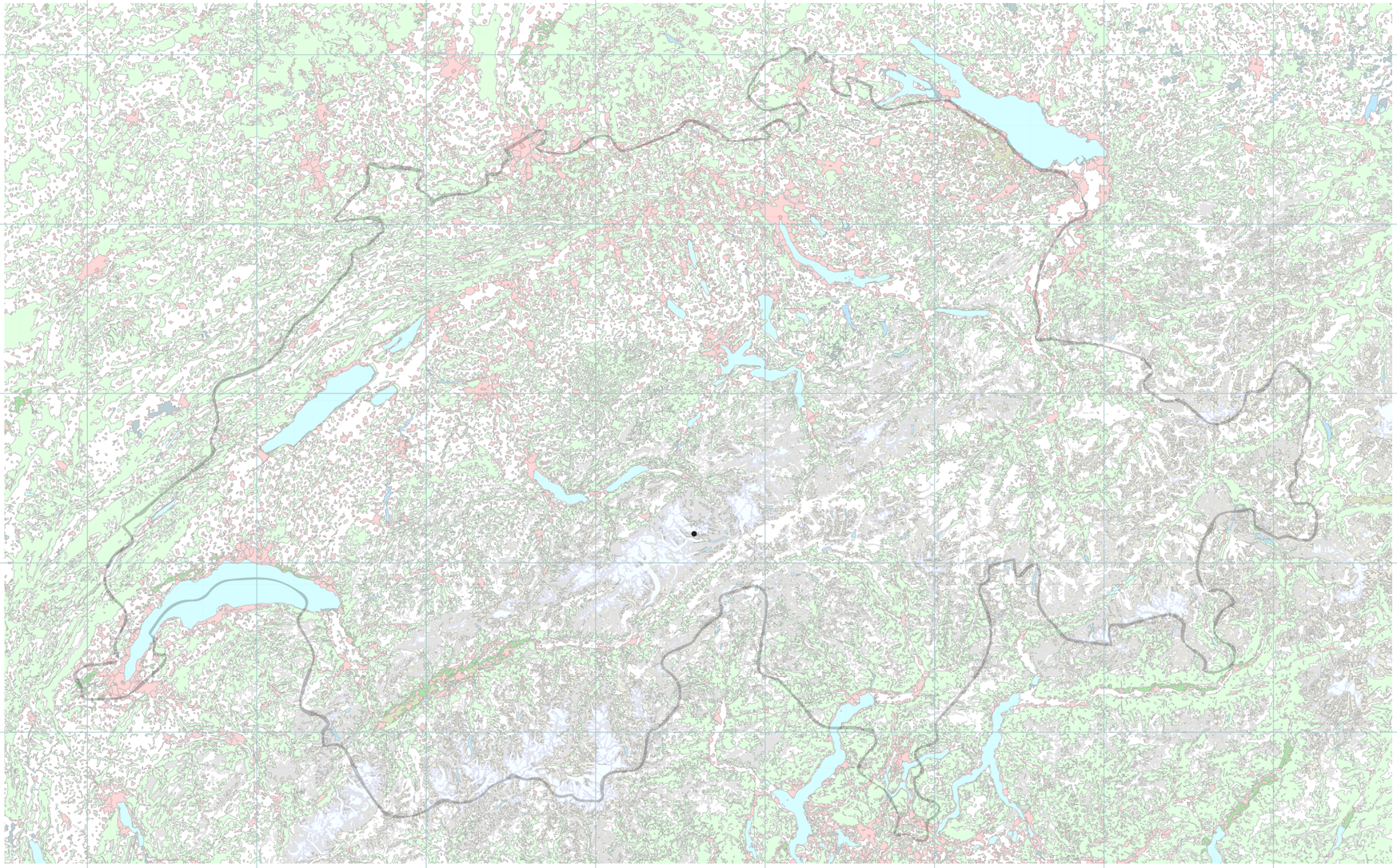




STEINGLETSCHER | STONE GLACIER | 46° 42' 26" N 8° 26' 18" E

a lethal skyrocket trail, sand textures edge conditions to enclose and delineate the invisibility of borders through stitches and, eventually, monumental fences. while the space will one day be blank, it will be memorized.



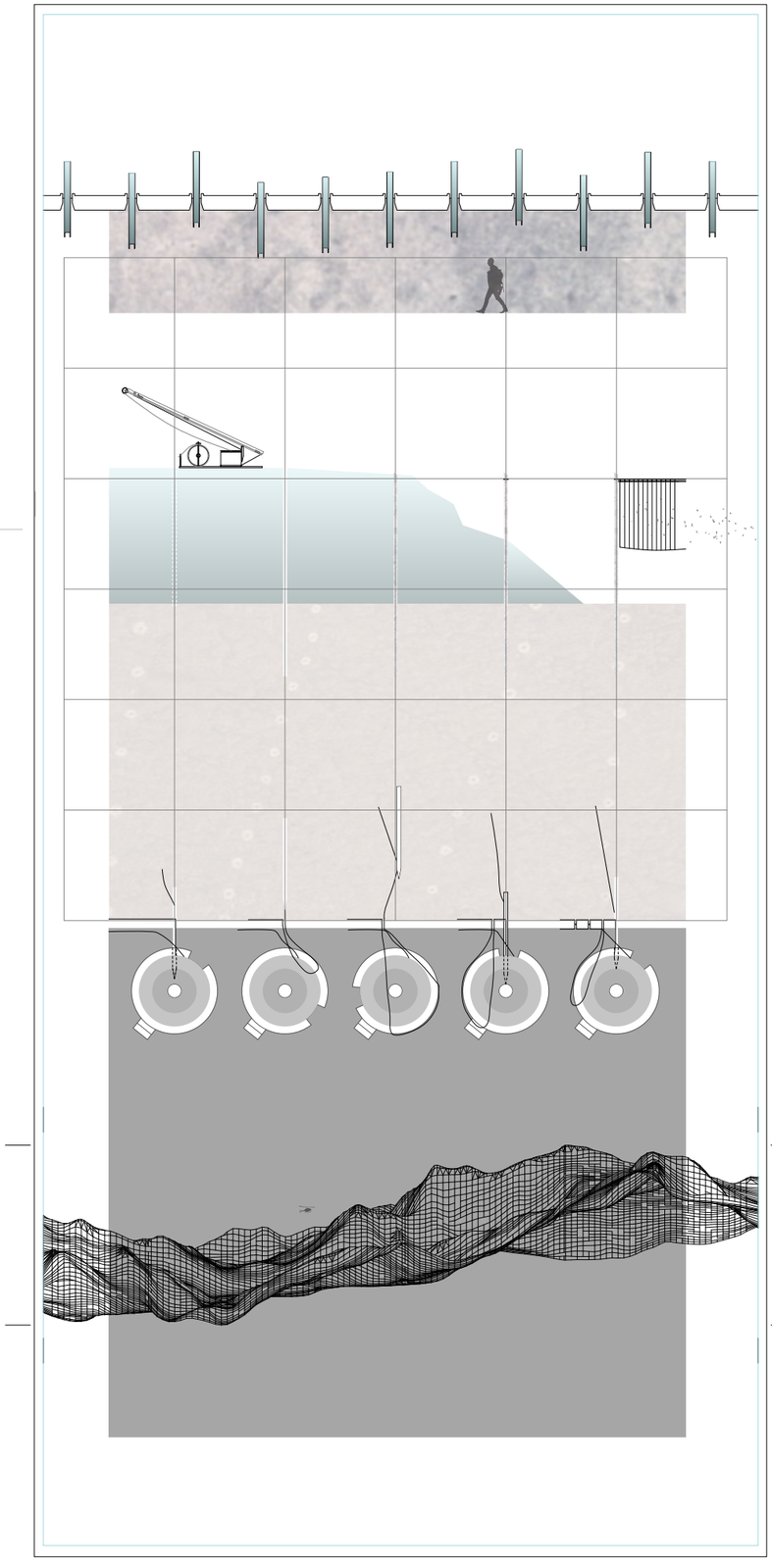


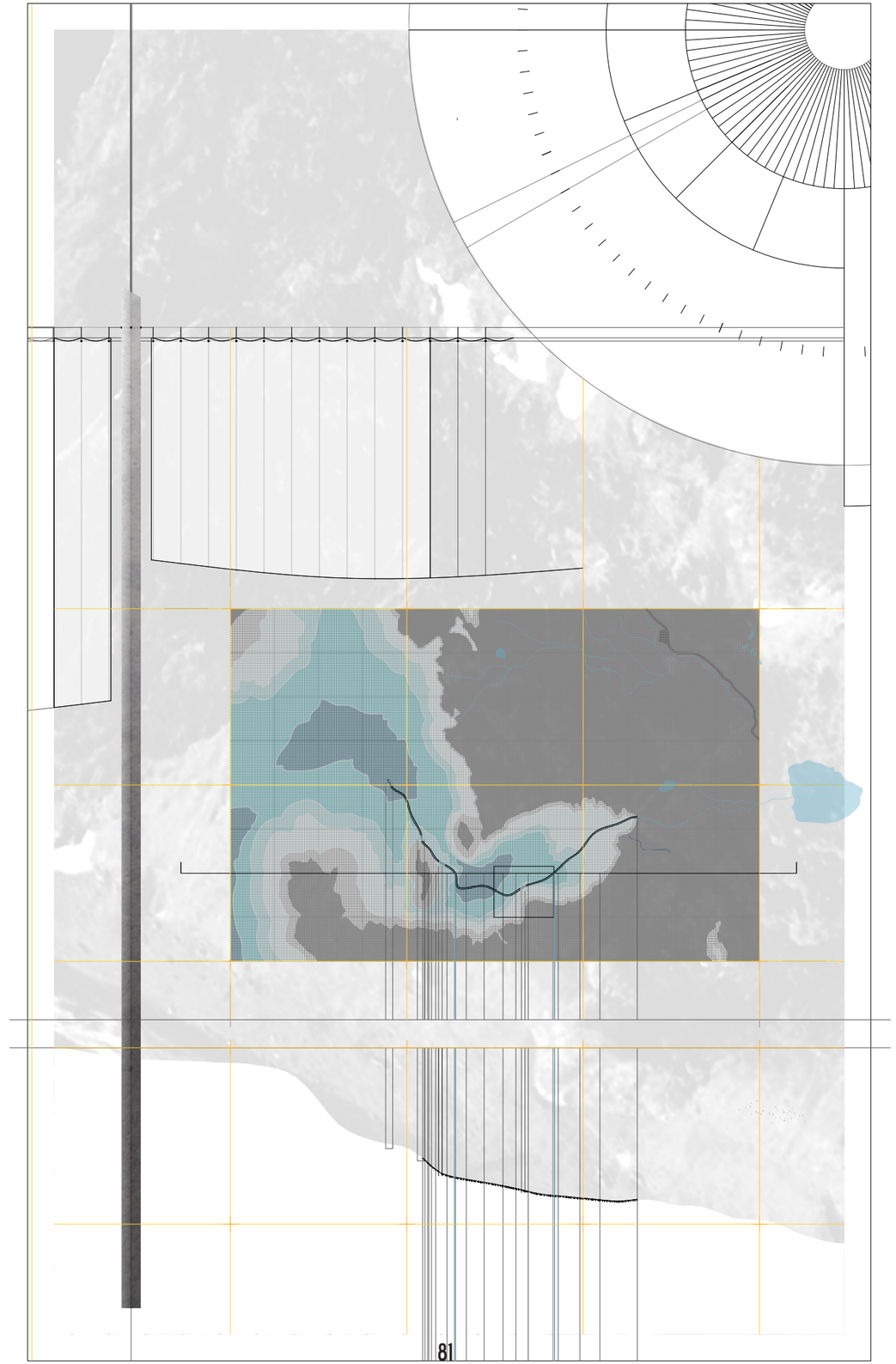
50 KM.

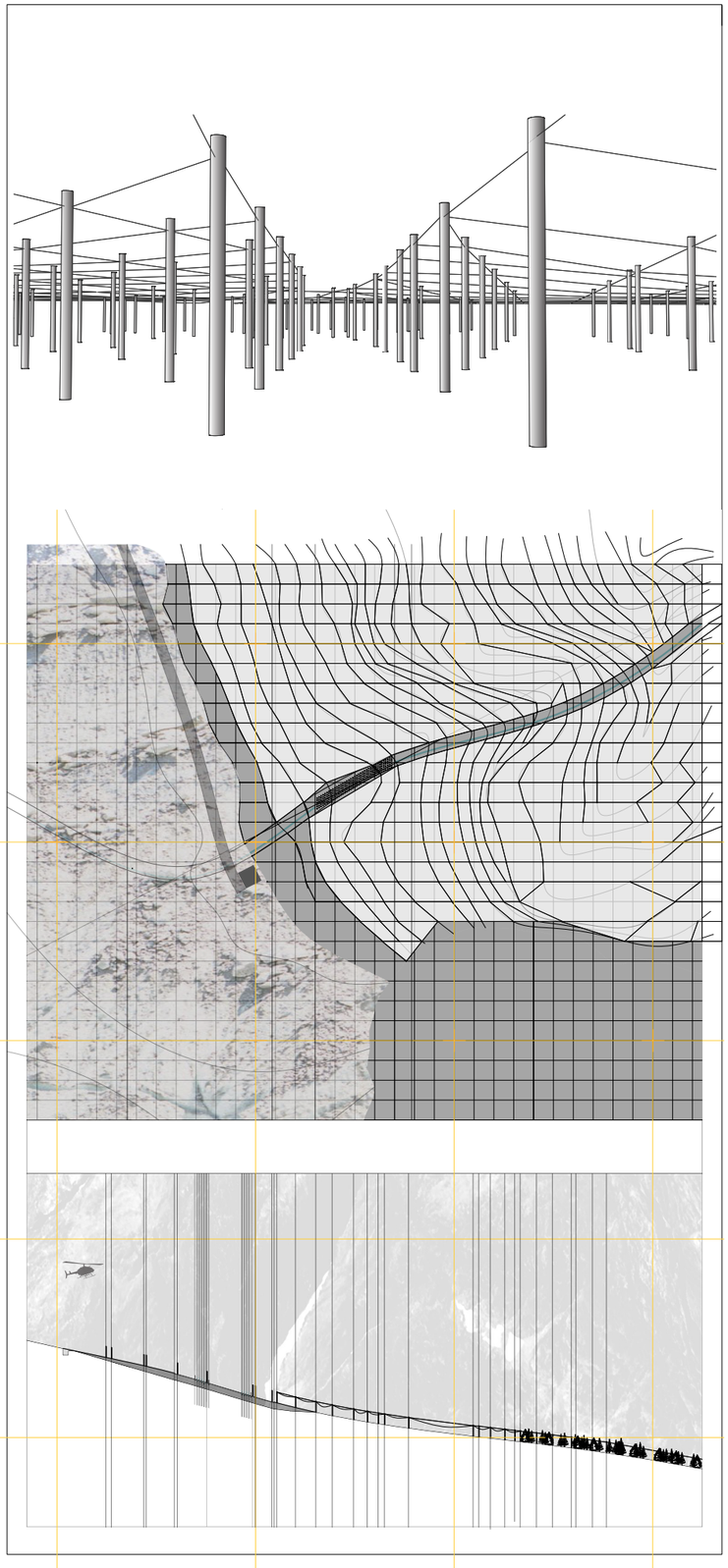
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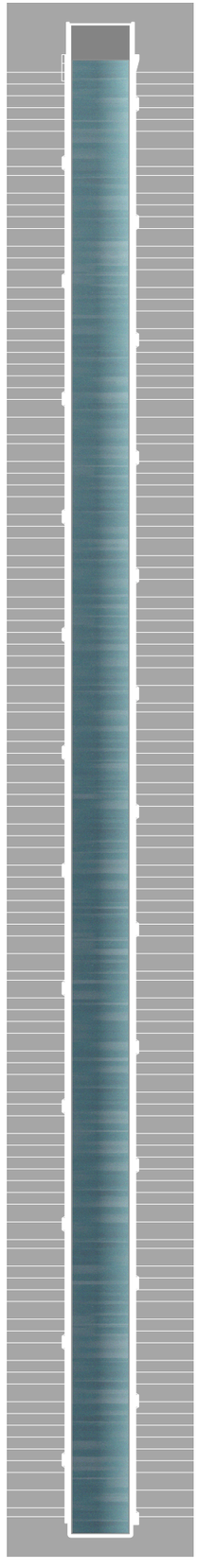
SUISSE | CONFOEDERATIO HELVETICA











"The earth is our clock... one, thirty, three hundred and sixty five, those the units by which our undertakings must be measured."

-Le Corbusier