wind tunnel bulletin

n°11

Imprint

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Wind Tunnel Bulletin n° 11
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wind tunnel bulletin n°11, june 2020

In the last couple of weeks public space has been filled with measurings. We find calibration marks of social distance everywhere on the ground, 2 m in Europe, 1.83 m in the US. A good moment to take this practice into view: The art of measurement has epitomized scientific research ever since Francis Bacon published his *Novum Organum* (1620). Quantifying experience is widely seen as the self-evident opposite of the arts, to which qualitative assessment is subordinated in turn. As always, clichés fall far short of the mark. Thus, this issue of our *Wind Tunnel Bulletin* explores the artistic measurement of the world, which, among others, is negotiated using scientific instruments, manuals, proportions, rhythmizations, and formatting. We give particular attention to the metric photograph, also because it carries to extremes an apparently plausible subdivision of the natural sciences, postulated by Peter Galison in 1997 as the opposition between an «image machine» and a «counting machine.» This metric photograph, as the basis of photogrammetry, has a tremendous presence today: since the camera, computer, and internet have become integrated into the smartphone, all of us are protagonists of the visual measurement of the world. And yet, it is no longer merely the individual image, which had to be calibrated against a graticule, that counts. Images themselves are now normalizing each other. So keep your eyes peeled!

Florian Dombois and Mirjam Steiner

0 1 2 3 4 5 6 7 8 9 10

Antonio Beato: Tombs of the Mamelukes (n.d.) and a fly stuck inside the camera making a shadow
http://www.luminous-lint.com/app/image/25959958825205727706345649O7/

wind tunnel bulletin n° 11, june 2020

In *The Man Without Qualities* Robert Musil calls [the method] «fantastic precision.» He distinguishes it from «pedantic precision,» such as that of courtrooms with their long deposed truths, which can become reactivated, always and everywhere (and also: *immutable mobiles*), but also from the reductionist processes of mathematico-physics. In contrast, the sense of possibility is developed as a genuinely artistic method in *The Man Without Qualities*. Just like fairy-tale reason and situated knowledges, the sense of possibility does not ignore reality or facts, it builds up a different relationship to them, a relationship in which objectives and paths of action multiply, fan out, become unclear, and where constrictions and factual constraints become apparent. According to Musil, «pedantic precision,» on the other hand, keeps to the products of fantasy, as it is subject to the misunderstanding that humans behaved in a rational manner, hence are transparent toward themselves. Yet the sense of possibility means more than including strategically disregarded or subjective motivations into calculated actions. It invents alternative figments to re-evaluate the supposed «reality» and to trace possibilities within it, which hitherto have remained undiscovered. Hence, the sense of possibility does not simply mean fishing in troubled waters. «The man with an ordinary sense of reality,» says Musil in the famous passage, «resembles a fish that nibbles at the hook and does not see the line, while the man with the kind of sense of reality that one can also call the sense of possibility pulls a line through the water without any notion whether there is a bait on it or not.» Musil replaces the purposefulness and alleged factuality of «the life nibbling at the bait» with a concrete practice—albeit erratic or poetic at first—that occupies and structures space. And precisely for this reason the procedure of «fantastic precision» is more true to facts than mere material logic. It is a richer procedure as it reaches beyond a positivist notion of objectivity by taking into account the reality of human imagination, including all of its side effects.

Karin Harrasser: «As reality creates itself, unforeseeable and new, its image reflects behind it into the indefinite past.—A few useful terms for artistic research». In: Franz Thalmaier (ed.): *Kunstraum Lakeside – Recherche*, Vienna, 2019, pp. 15–22.

We sailed from Peru, [...] and had good winds from the east, though soft and weak, for five months space, and more. But the wind came about, and settled in the west for many days, so as we could make little or no way, and were sometime in purpose to turn back. But then again there arose strong and great winds from the south, with a point east, which carried us up (for all that we could do) towards the north; by which time our victuals failed us, though we had made good spare of them.

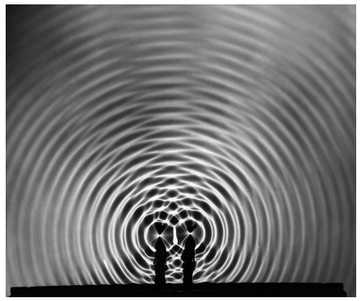
From the opening of *Nova Atlantis* by Francis Bacon, who has been called the Father of Empiricism. We dedicate this WTB to his brother Anthony, who was a spy. N.b. on 9 April 1626, Francis died in Highgate as a result of the only empirical experiment we know of him: while experimenting whether the shelf life of dead chickens could be extended by stuffing them with snow, he caught a cold and shortly afterwards died of pneumonia.

The omnipresence of scaled objects in our surroundings has been accompanied by photography for nearly 200 years. And it is our assumption that photographic and film cameras have not only documented the growing importance of scaling in the modern age, but have contributed essentially to making many intellectual pursuits possible to begin with. For every camera lens scales its object on a negative (or a digital ‹back wall›) and subsequently repeats the scaling of size the moment the image is reproduced on the proof or the screen. [...] [A]s a second dimension, we want to have a look at the scaling of time, of its acceleration and deceleration, which manifests itself in film particularly in the form of slow motion and fast forward. [...] Third, we would like to discuss scaling of film speed (energy) as a hypothesis and a theme. [...] And fourth, scaling of number is found in photography in the reproduction of prints and the displays, on which photos appear everywhere nowadays.

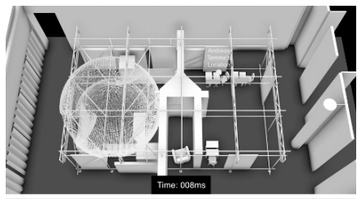
Florian Dombois, Julie Harboe (eds): *Too Big To Scale*, Zurich, 2017, pp. 5–7.

There is a green meadow behind the fence
The scientific look of measuring

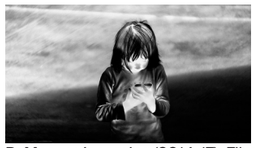
In the early days of film, art and science seem to meet effortlessly under the sign of measurement: The two developers of serial photography, Marey and Muybridge, are now treated like artists, although their photographs spring from a longing to measure and are full of scales, grids, and numbers. Other masters of photographic surveying, such as Frank Gilbreth, also beguile us with metric photographs whose aesthetic effect is undeniable. Thus, even though many scientists still do everything possible to ensure that their images solely display facts and have no aesthetic effect, the inevitable has happened and continues to happen: Measuring is beautiful! And measuring is also a look that artists play with in their works.



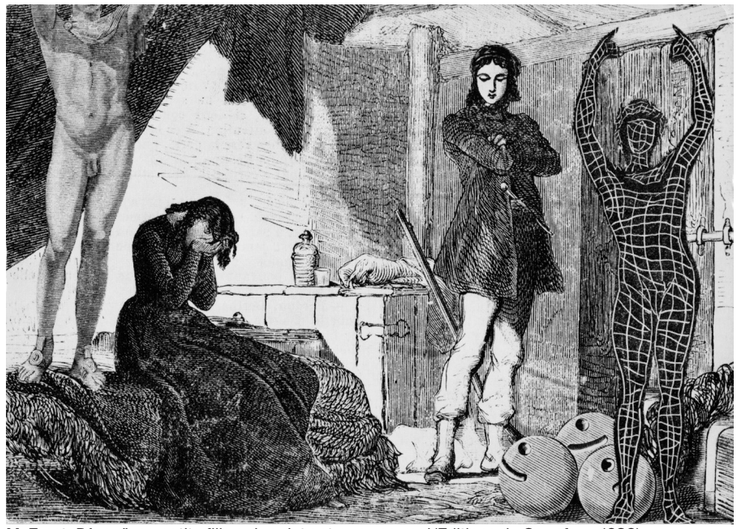
B. Abbott: *Interference Pattern* (1958-61)
https://www.nzz.ch/feuilleton/kunst_architektur/berenice-abbott-fotografien-was-das-blosse-auge-nicht-sieht-ld.108962



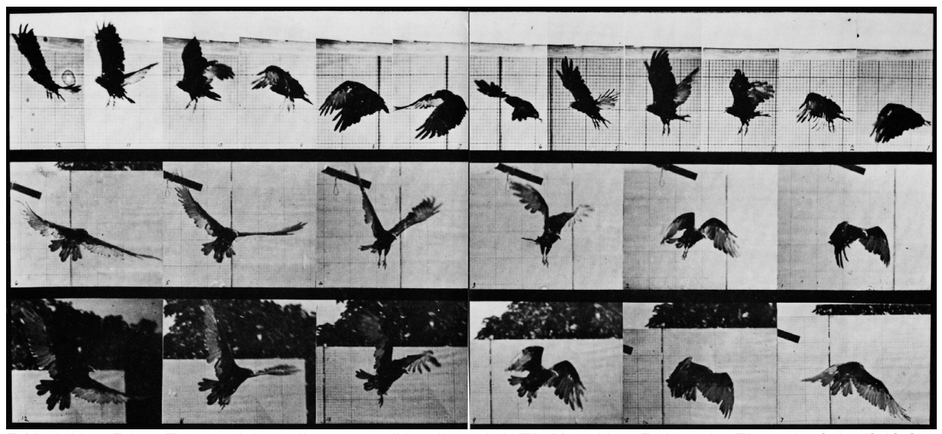
F. Architecture: *77sqm_9:26min* (2017), Film Still
https://forensic-architecture.org/investigation/the-murder-of-halit-yozgat



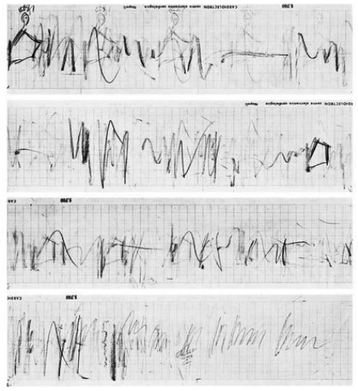
R. Mosse: *Incoming* (2014-17), Film Still
https://loeildelaphotographie.com/en/richard-mosse-incoming/



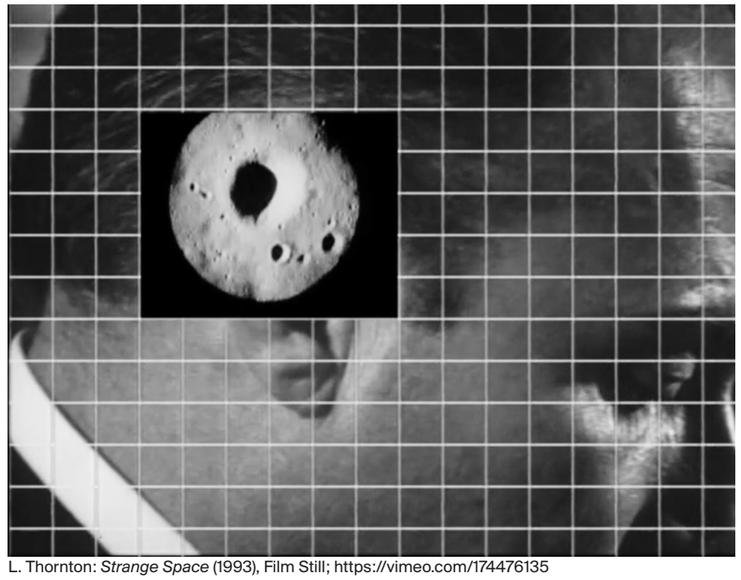
M. Ernst, *Rêve d'une petite fille qui voulut entrer au carmel* (Editions du Carrefour: 1930)



E. Muybridge: *Falcon Flying* (n.d.); https://commons.wikimedia.org/wiki/File:Muybridge,_Eadweard_-_Fliegender_Geier_(0.40_Sekunden)_(Zeno_Fotografie).jpg#filehistory



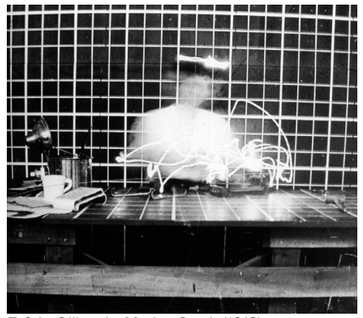
J. Beuys: *Diagramma Terremoto* (1981)
https://www.tate.org.uk/research/publications/tate-papers/31/joseph-beuys-earthquake-in-peoples-minds



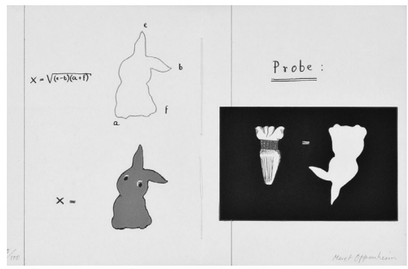
L. Thornton: *Strange Space* (1993), Film Still; https://vimeo.com/174476135

Dégagée du préjugé de l'infaillibilité des sens [...] la science a cherché d'autres auxiliaires pour la conquête de la vérité; elle les a trouvés dans les instruments de précision. Depuis longtemps elle possédait les moyens de mesurer avec exactitude les dimensions, le poids, la composition, en un mot l'état statique des corps de la nature; elle commence à étudier les forces dans leur état dynamique. Mouvements, courants électriques, variations de la pesanteur ou de la température, tel est le champ à explorer. Dans cette nouvelle entreprise, nos sens, à perceptions trop lentes et trop confuses, ne peuvent plus nous guider, mais la méthode graphique supplée à leur insuffisance; dans ce chaos, elle révèle un monde inconnu [...]. Tous ces changements dans l'activité des forces, la méthode graphique les traduit sous une forme saisissante que l'on pourrait appeler le langage des phénomènes eux-mêmes, tant elle est supérieure à tous les autres modes d'expression.

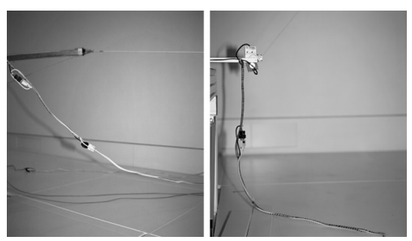
Etienne Jules-Marey: *La méthode graphique dans les sciences expérimentales et principalement en physiologie et médicine*, Paris, 1878, pp. II–III.



F. & L. Gilbreth: *Motion Study* (1913)
http://www.experimentsinmotion.com/motion-gallery/33/Motion+Study/#image



M. Oppenheim: *Das Schulheft* (1930)
http://www.artnet.de/künstler/meret-oppenheim/das-schulheft-MqQav-WRk13HrTcXPmkL_A2

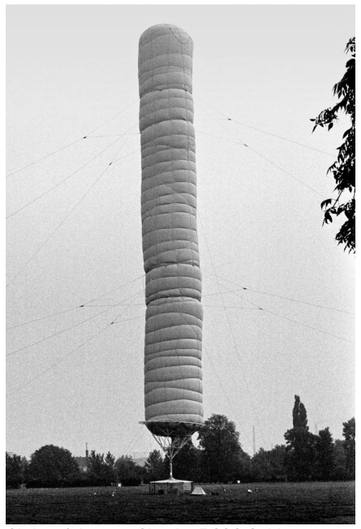


Christoph Oeschger: *AI_Flow Resistance* (2010), ETH Zurich, Labs For Artificial Intelligence
http://www.christophoeschger.ch

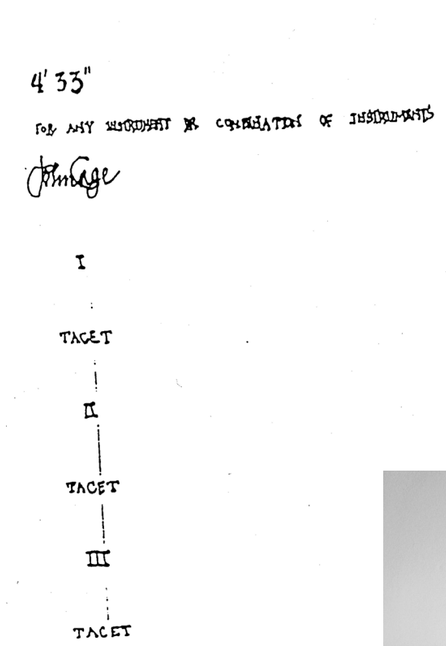
The Counting Artist
Quantities as Art

Some works of art do not show their (un)measuredness. And yet, the number and its unit play a key role. Rather than small numbers like a quartet, two chairs or a triangle, we mean an almost pedantic precision with which a considerable number of artworks exhibit their content in their titles.

W. De Maria, *The Vertical Earth Kilometer* (1977) http://welt-der-form.net/Kassel/De_Maria-1977-Vertikaler_Erdkilometer-09.html



Christo & Jeanne-Claude: *5,600 Cubicmeter Package* (1967–68); https://christojeanneclaude.net/projects/5600-cubicmeter-package

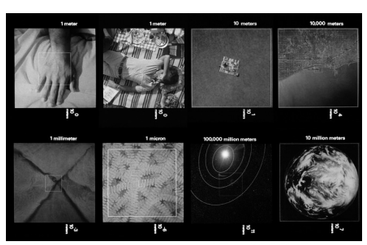


J. Cage: *4'33"* (1952); https://noisenotmusic.com/2017/12/18/graphic-scores-organized-uncertainty/

F. Dombois: *Horizon with Seven Hills* (2008) http://floriandombois.net/works/horizon-with-seven-hills.html

Putting this point in the complementary language of particles rather than fields, we can understand vacuum fluctuations in terms of the existence of virtual particles: *virtual particles are quanta of the vacuum fluctuations.* That is, *virtual particles are quantized indeterminacies-in-action*.

Karen Barad: *What is the measure of nothingness? Infinity, Virtuality, Justice*, Ostfildern, 2012, p. 11.

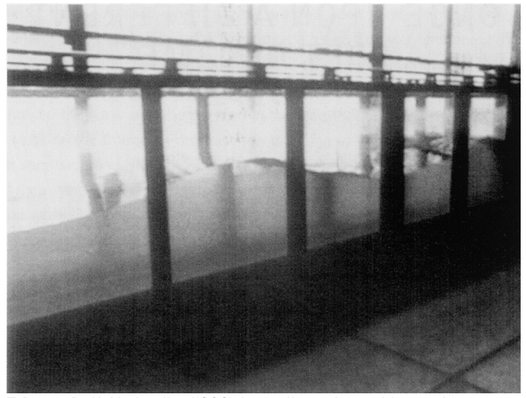


C.&R. Eames: *The Powers of Ten* (1968), Film Stills; https://www.e-flux.com/architecture/at-the-border/325754/zoom-in-zoom-out/

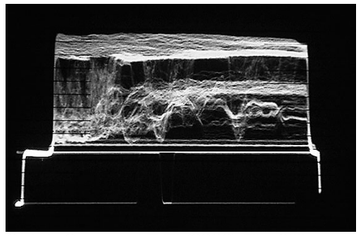
T. Makhacheva: *4'224,92 cm² of Degas* (MCBA: 2020), Exhib. View; https://www.artlog.net/de/kunstbulletin-5-2020/taus-makhacheva-422492-cm-de-degas

Machine Art - Art Machines
Measuring Instruments

The pivotal tool of the sciences that transforms qualities into quantities is the instrument. When, in the 1990s, artists began engaging increasingly with the sciences as one of the major designers of present-day reality, they not only tackled the results and interpretations of the world, but also started at the very beginning, with collecting data.

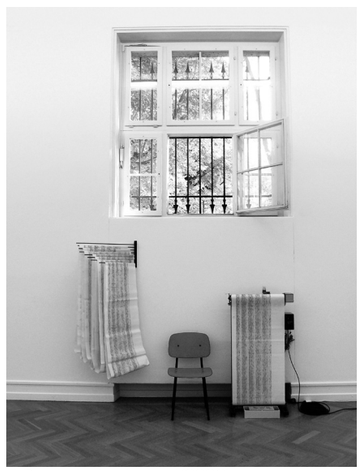


T. Dean: *Delft Hydraulics* (1996); https://soundartarchive.net/WORKS-details.php?recordID=739



C. de la Garenne: *LEVEL* (2002), Film Still http://www.christinedelagarenne.de/index.php?id=55

C. Keller: *Cloudbuster Project, Braunschweig Version* (2008); https://kunstvereinbraunschweig.de/en/exhibitions/christoph-keller-observatorium/



F. Dombois: *Luginsland* (2006) http://floriandombois.net/works/luginsland.html

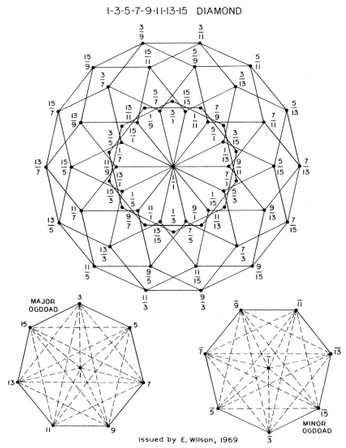
Typically, an experimental system is, in Jacob's words, a «machine for making the future.» [...] It is a device that serves to materialize questions.

Hans-Jörg Rheinberger: *Experiment, Differenz, Schrift. Zur Geschichte epistemischer Dinge*, Marburg, 1992, p. 25 [François Jacob: *La statue intérieure*, Paris, 1987, p. 13], trans. by Mark Kyburz.

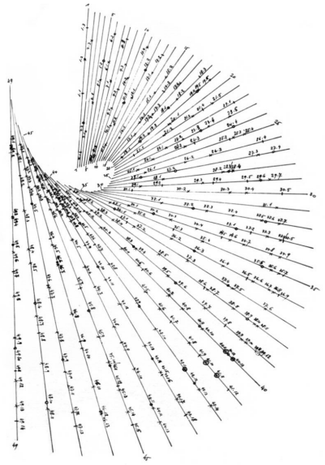
W. Delvoye: *Cloaca Original* (2000); http://revuecaptures.org/contrepoint/itérations-de-cloaca

Systems of Beauty
Proportion, Module, Scale

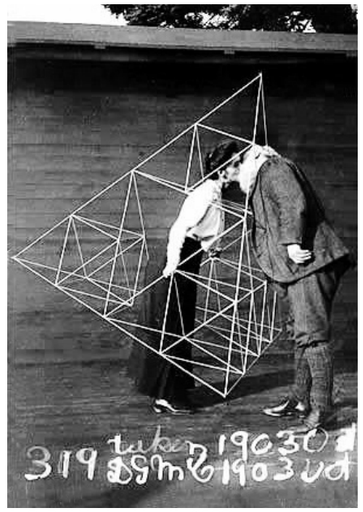
Medieval training in the *septem artes liberales* (the liberal arts) consisted of the trivium and the quadrivium. The former is trivial, the latter comprises arithmetic, geometry, music, and astronomy. This proximity was long formative—in both directions: Music was considered beautiful and desirable if it could be described and produced by «beautiful» numbers and ratios. Yet astronomers like Johann Kepler also sought celestial harmony, a harmony of heavenly events. No one who thinks about numbers and measuring can avoid the systems of proportions still characterizing music and architecture today. But also Minimal Art or even some Land Art is permeated by simple numbers and their proportions as well as their often intentional irrelevance.



H. Partch: *Tonality Diamond* (1947) issued by E. Wilson; https://www.wikiwand.com/en/Tonality_diamond



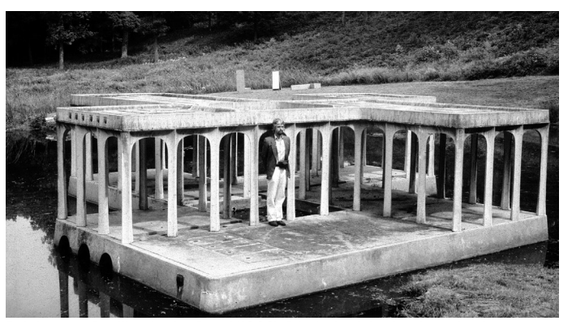
I. Xenakis: *Polytope* (Edition Parentèses: 2006)



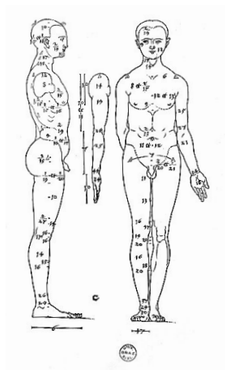
A. G. Bell kissing his wife (1903)
https://www.loc.gov/item/2014647930/

Anonymous (n.d.); https://aminoapps.com/c/terror-amino-en-espanol/page/blog/escalofriantes-imagenes-de-la-deepweb/NbIn_KxTMu3GoMmV3Ja35bkM7ajZIX6web

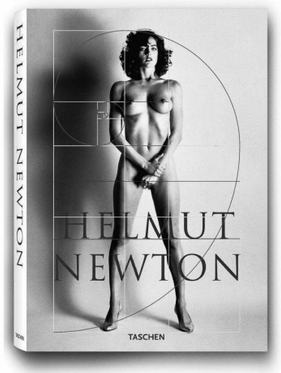
> There is no exquisite beauty... without some strangeness in the proportion.
>
> Edgar Allan Poe; https://www.goodreads.com/quotes/66649-there-is-no-exquisite-beauty-without-some-strangeness-in-the



P. Johnson: *Pavilion in the Pond* (1962); Diathek of the Institute for Art History, Technical University Dresden



A. Dürer: *Two Proportional Studies of a Male Nude* (about 1513); https://www.hamburger-kunsthalle.de/sammlung-online/albrecht-duerer/zwei-proportionsstudien-eines-maennlichen-akts

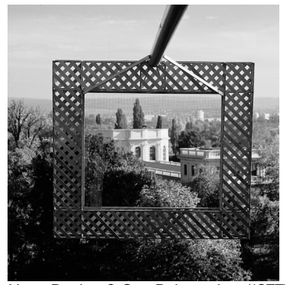


H. Newton, Cover of *SUMO* (Taschen: 2009); https://www.taschen.com/pages/de/catalogue/photography/all/01104/facts.helmut_newton_sumo_20th_anniversary_edition.htm

Artistic Observatories
Allowing the visitor to measure

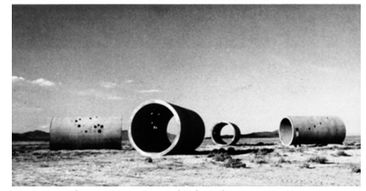
Much has been written about saying and showing. It is widely assumed that the work of art reveals itself to the viewer as a counterpart. And yet, this is merely one side of the coin. Some works show by deflecting attention from themselves, by pretending to be nothing but a small step to something else. Observatories, for example, are such steps, by making measuring itself tangible and accessible.

F. Dombois: *Der Stille Portier* (2006)
http://floriandombois.net/works/der-stille-portier.html



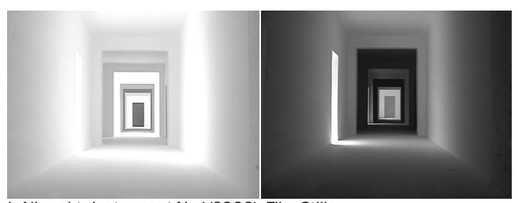
Haus Rucker & Co.: *Rahmenbau* (1977)
https://www.vr-tours.de/reiseangebot/reise/tagesfahrt-kassel-kulturstadt-par-excellence/

R. Serra: *Frame* (1969), Film Still
https://www.moma.org/collection/works/196394



N. Holt: *Sun Tunnels* (1973–76); https://www.artforum.com/print/197704/sun-tunnels-35992

> The best planner is he who—other things being equal—is the most ingenious, the most experienced and the best observer. It is an art to observe; it requires persistent attention. The longer and the more the observer observes, the more details, and variables affecting details, he observes. The untrained observer could not expect to compete with one of special natural talent who has also been trained. It is not every man who is fitted by nature to observe closely, hence to plan. To observe is a condition precedent to visualizing. Practice in visualizing makes for increasing the faculty of constructive imagination. He with the best constructive imagination is the master planner.
>
> Lillian Moller Gilbreth: *The Psychology of Management. The Function of the Mind in Determining, Teaching and Installing Methods of Least Waste*, Easton, 1973 [1914], pp. 76–77.



J. Albrecht: *Instrument Nr. 1* (2000), Film Stills
https://youtu.be/yQFxkNNjHWo

J. Albrecht: *Instrument Nr. 1* (2000), Making-of
https://www.juergenalbrecht.com/kopie-texte









310, 311 Update

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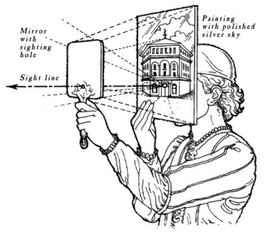
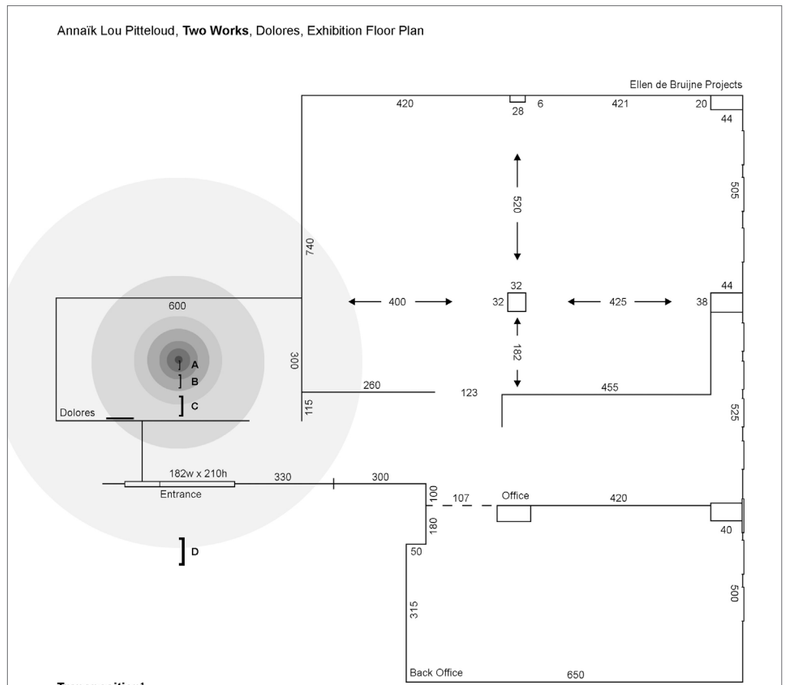
Art to come
Manuals, Scores, Plans, Models

Measuring needs reference. The units must remain constant to ensure measurements remain meaningful over time (a state of affairs on which Marcel Duchamp's *3 Standard Stoppages* passes ironic comment). This also applies to creating art, in particular when authors turn to performers, when works are commissioned, when artists use scores, models, plans, or instructions. Here, stable referentiality is relied on, in order to set the work in relation to its surroundings.
An interesting and special case of referentiality is Robert Smithson's concept for *Non-Sites*, where the direction is no longer clear: Do they map or rather strive to produce a reality?



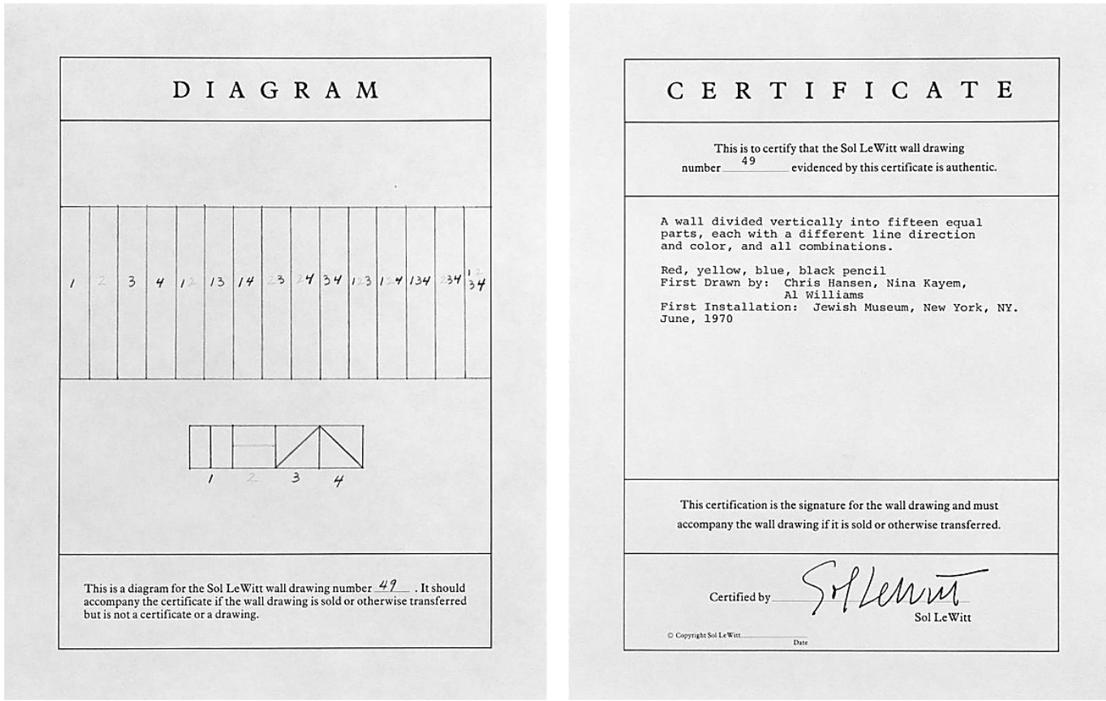
F. Brunelleschi: *Experiments with Linear Perspective* (1410); https://maitaly.wordpress.com/2011/04/28/brunelleschi-and-the-re-discovery-of-linear-perspective/



Transposition[1]
2012
A private distance for embracing, touching or whispering
close phase 15 cm / far phase 15 to 46 cm
B personal distance for interacting among good friends and family
close phase 46 to 76 cm / far phase 76 to 120 cm
C social distance for interacting among acquaintances
close phase 120 to 210 cm / far phase 210 to 370 cm
D public distance for interacting with unknown
close phase 370 to 760 cm / far phase 760 and more
—
1 Reversing **A**, **B**, **C** and **D** in the aforementioned theory the public sphere would be reduced to the private one. It would become an informal and portable perimeter carried along by the individual as unique holder of the capacity to create social space.

Ruler
2012
hair
Acryl container 53 x 2.5 x 2 cm

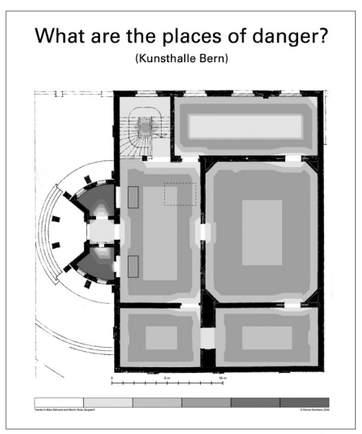
A. L. Pitteloud: *Transposition* (2012); https://www.annaikloupitteloud.com/Transposition



S. Lewitt: *A Wall Divided Vertically into Fifteen Equal Parts , Each with a Different Line Direction and Colour, and All Combinations* (1970); https://www.tate.org.uk/art/artworks/lewitt-a-wall-divided-vertically-into-fifteen-equal-parts-each-with-a-different-line-t01766

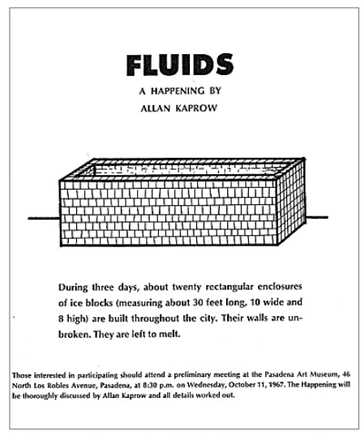
Numbers and graphs do not gain authority from increasing precision of measurement, sample size, or complexity in manipulation. Basic experimental designs may be flawed and not subject to correction by extended repetition. Prior commitment to one among many potential conclusions often guarantees a serious flaw in design.

Stephen Jay Gould: *The Mismeasure of Man*, New York, 1996 [1981], p. 114.



F. Dombois: *What are the places of danger?* (2006); http://floriandombois.net/works/what-are-the-places-bern.html

R. Smithson: *Non-Site, Ruhr-District* (1968) https://www.jstor.org/stable/pdf/779047.pdf

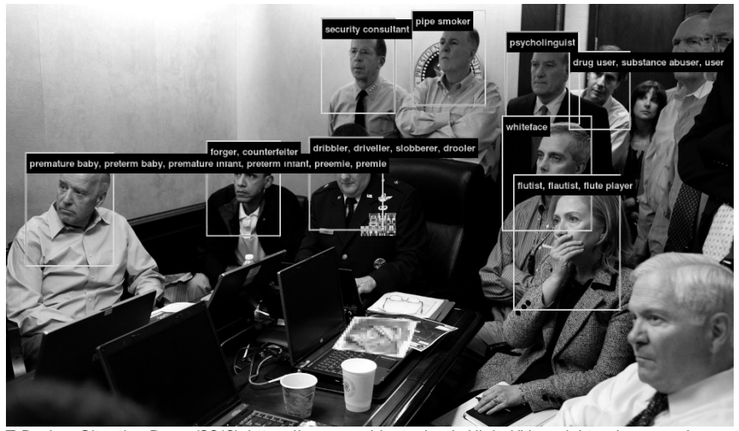


A. Kaprow: Poster for *FLUIDS* (1967); http://getty.edu/research/exhibitions_events/events/overflow/index.html

The Act of Measurement
Join the measuring ceremony

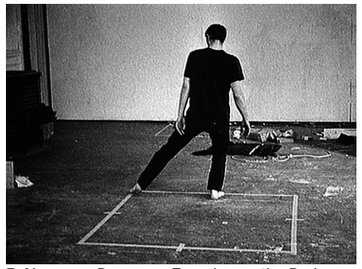
There are always reasons for artists to measure. Be it visually, acoustically, or tactilely, be it with one's own body or with selected instruments. This brings to the fore the performative aspect of measuring. Often, such measuring actions reach the exhibition space via photographic or filmic documentation. But beware, these works, if they succeed, more than merely refer to something that happened.

It is clear, and yet may it be said again: this list is as incomplete as the various aspects overlap. For our goal is not to bring order into ordering, but to watch the measurer measure. This we aspire to do with our eyes wide open, because here something is happening that both conditions and changes our world.

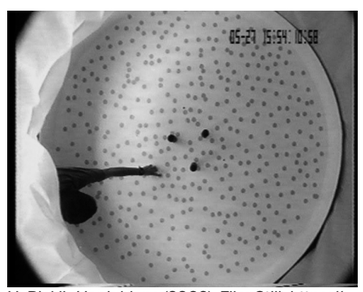


T. Paglen: *Situation Room* (2019); https://www.sueddeutsche.de/digital/ki-gesichtserkennung-kuenstliche-intelligenz-gesicht-1.4611340


F. Dombois: *Struck Modernism* (2010)
http://floriandombois.net/works/struck-modernism.html


B. Nauman: *Dance, or Exercise on the Perimeter of a Square* (Square Dance),(1967-68)
https://www.moma.org/collection/works/119087


A. Bunte: *Lettuce Partially Emerging From a Shopping Bag* (2014), Film Still; http://andreas-bunte.net/LPEFASB_frameset_n.html


H. Rickli: *Honigbiene* (2009), Film Still; https://medienarchiv.zhdk.ch/entries/05586398-b7f7-4245-9760-6836008357a1

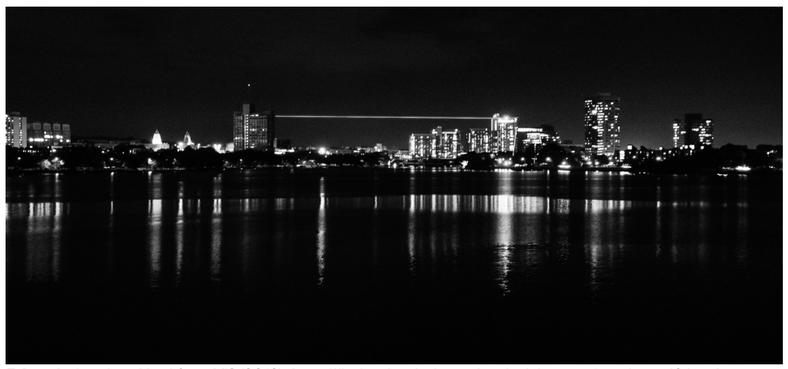

H. Steyerl: *How Not To Be Seen: A Fucking Didactic Educational .Mov File* (2013), Film Still
https://kuenstlerhaus.de/hntbs-by-hito-steyerl/?lang=de

H. Farocki: *War at Distance* (2003), Film Still
https://centre.ch/en/events/50jpg-programmation-de-films-au-cinema-dynamo/

> Measure [...] needs to be recognised as more than a specialised, abstracted, physically remote, calibrated dimensioning of inert material. Measure is a deliberate consequence of human thought—in Latin, mens (the root of ‹measure›)—and the dissembler—in Greek, eiron (the root of ‹irony›)—and simulator of power. Indeed, because of its changing and irrational character, the modern metric system based on the metre rod might be better understood as the measure of all irony. For although it was designed to be rational, in the process of its scientific refinement and adoption internationally the metre has become disembodied, non-figurative and abstract—terms that, perhaps more than coincidentally, have also been applied to the art and architecture of the twentieth century. I am not alone in the belief that a reconsideration of measure has the potential to reunite art and science.

Robert Tavernor: *Smoot's Ear: The Measure of Humanity*, New Haven, 2007, p. 14.


R. Opalka by L. Wolleh (2002); https://de.wikipedia.org/wiki/Datei:Roman_Opalka_by_Lothar_Wolleh.jpg


F. Dombois: *uboc No. 1 & stuVi2* (2013); http://floriandombois.net/works/uboc-no.1-und-stuvi2.html

The Bulletin traditionally collects raw, unfinished material—arguments seeking to explore a particular question through text-image constellations. What follows considers whether the metric photograph is suited to adopting poetological considerations in art. These reflections as such involve a thought experiment with an uncertain outcome.

We are familiar with the genre of literary self-reflection—so-called poetics or authorial poetics–from literature, where it functions as an ancillary to the actual work. It provides information about the writing process, names the decisive criteria and basic concepts of literature, and expresses itself in various formats, including lectures on poetics, poetological essays, prize speeches, or workshop discussions. As a theory of literary forms and literary discourse, poetics aims to instruct. It is normative. While poetics functions as speaking about writing, the poetological poem involves speaking through writing, by conveying in poetic form basic considerations about concept, form, and program. The poetological poem thus reflects the perception and representation of the world and presents these in exemplary and concrete fashion, for instance, through poetic and rhythmic language.

Analogously to poetics and the poetological poem, I ask whether this self-reflective and programmatic procedure can also be transferred to the visual arts. The main question, in this respect, is how speaking about and through art might express itself in the form of an artwork. A possible starting point is the metric photograph[1], and, more broadly, all works of art addressing the subject of measuring, as the seven aspects of our selected images reveal (see pp. 304–315). I examine the close linkage between the metric photograph and poetology starting from the observation that the poetological poem and the process of measuring are both normative and performative.

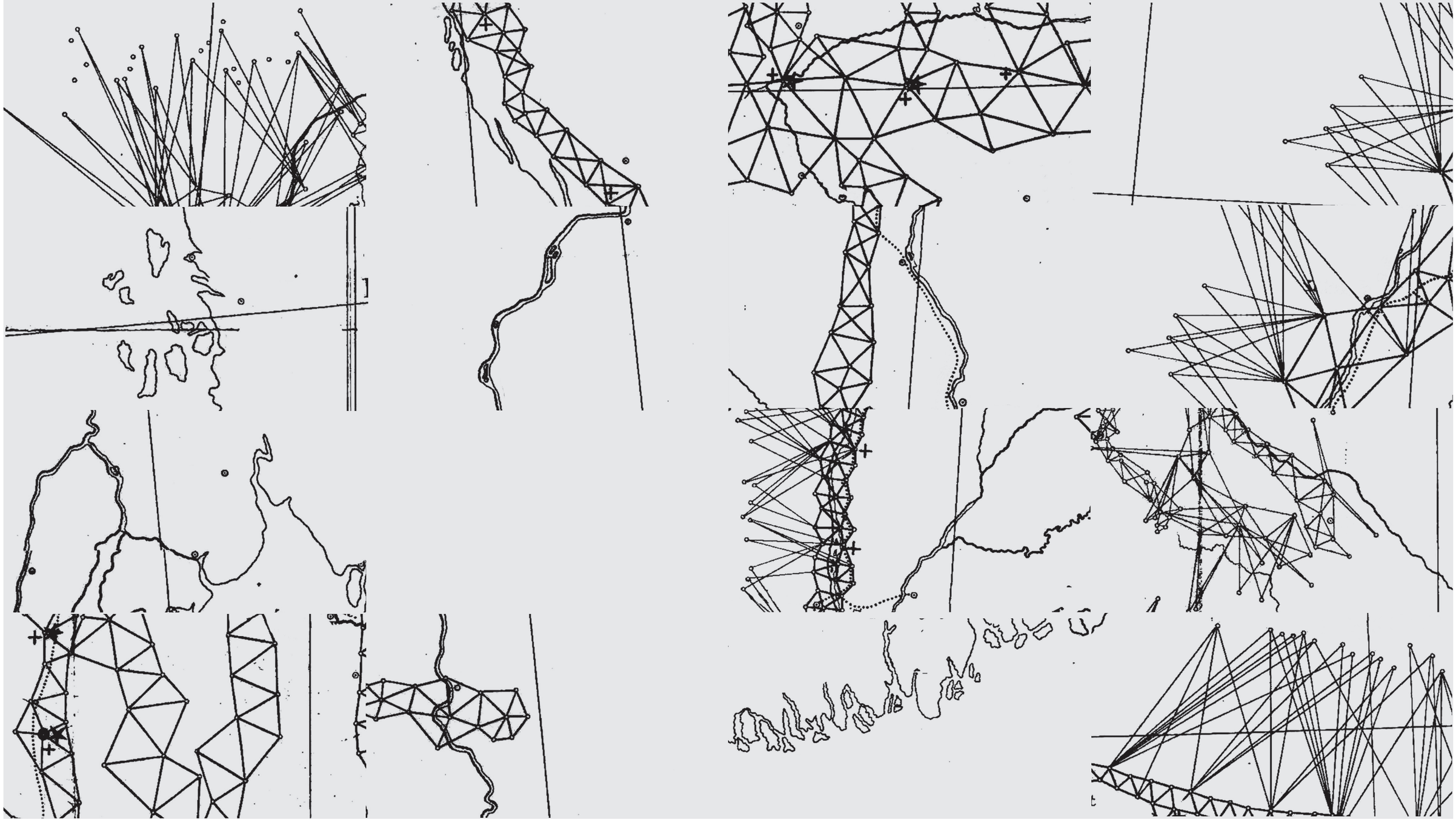
Questions about measurement and measuring exist in all areas of life and in all disciplines. Measurements are epistemic, and occur through practical action and execution. As concrete applications to an object under study, measurements are based on observing reality and on describing the observed in terms of numerical value. The numerical representation of the reading (or measured value) promises a quantitative evaluation of the world and goes hand in hand with a promise of objectivity. Thus, measurements strive to standardize, normalize, and visualize (even purported) knowledge.

Art—as I claim based on the pictorial arguments of this booklet (pp. 304–315)—is not primarily interested in quantifying the world. Rather, the images collected here exemplify how variably the arts deal with aesthetic categories such as scale, format, dimensions, rhythm, duration, proportions, and perspective—moreover, always in relation to a counterpart. The aesthetic practices of measuring interact closely with their manifold fields of application in technology, the natural sciences, politics, economics, etc. They serve to determine the relationship between facts, objects, and discourses.

The zooming process in Charles and Ray Eames' *Powers of Ten*, Philip Johnson's playing with scale in *Pavilion in the Pond*, the rhythmic color sequences in Sol LeWitt's *Wall Drawings*—each of these works provides aesthetic arguments that non-propositionally reflect the inherent dynamics of the processual—through and about art. These works are metric photographs in which executing an action and rule-guidedness become comprehensible. It seems to me that these aspects destine these works for poetological consideration.

Mirjam Steiner

1 The metric photograph, first used in heritage conservation as a contactless method to survey objects and draw up plans for their reconstruction from photographs, is a measuring aid that actively serves to render visible or more precisely present facts and circumstances. Harun Farocki and Forensic Architecture, among others, have artistically engaged with the metric photograph, thus taking recourse to photogrammetry. Here, however, I have in mind all artistic works that deal with the practices of measuring and measurement.



After the fingerprint was used as a signature by Chinese potters and European scientists, it was the British William James Herschel who enforced the systematic use of finger-prints as a recognition tool in colonial India.
Herschel was the scion of a dynasty of scientists and artists. His Grandfather, discovered the planet Uranus and his father was a well known astronomer and mathematician. Herschels father, who referred to him as «my unruly boy Bill» had requested him not to adopt astronomy as a career and the young man had decided therefore, to go east.

It was an expression of the spirit of the times but also marked by racist prejudices when Herschel, demanded a handprint of Rajyadhar Konai on a contract in order to be able to identify him beyond doubt in case of non-compliance with the terms of the contract. Herschel later noted that he insisted on the handprint to intimidate Konai. He felt the need to «frighten Konai out of all thought of repudiating his signature thereafter.» This may not just reflect his pedantry as his distrust of all Indians.
The idea that there might be more to his bluff did not let go of him. Herschel became obsessed with fingerprint identification. He organized dinners at his home where every guest had to hand in his fingerprints and he started his long-term study on his own fingerprint to document any changes. Later, he introduced a rule in his administrative district that convicts had to give up their fingerprints so that it could be checked if it was the convict who was arrested.
Above all, however, he tried to introduce identification by fingerprint in the colonial administration. The possibility to measure people to make them identifiable, the possibility to determine the identity so that one could govern. Despite all efforts, he was only able to enforce the systematic use of fingerprints in India in isolated cases. His idea to make people identifiable and thus also the possibility to govern failed because of mistrust of the new technology. Only after the re-importation by the bored official Edward Henry the technique found a more widespread use. As a first measure it was used to identify travelers (Indian Gypsies).

(A potential part of an essay film)

Christoph Oeschger

Florian Dombois (FD):
Are you asking why I find measuring interesting? Well, when I first became interested in measuring, in the 1980s, I was fascinated on the one hand by the fact that measuring involves so much poetry and aesthetic potential, which barely interested anyone at that time in art. I don't just mean the scientific look, but most of all the poetic excess that arises from exaggerated sobriety. Miracles through enlightenment. Just as we laugh at Buster Keaton because he isn't laughing. And, on the other hand, I considered and still consider engaging with measuring extremely important, because it is heavily involved in the environmental destruction we are constantly wreaking. And what interests you about measuring as an art historian?

Mirjam Steiner (MS):
On the one hand, I am fascinated that measuring has a very long tradition in art—the proportions of Leonardo's *Vitruvian Man*, Dürer's *Treatise on Measurement*, where measuring is shown to involve a graticule and a perspectograph, and Duchamp's dropped or falling threads—and, on the other hand, it is highly topical in contemporary positions employing measuring technologies and data analysis to solve (war) crimes, such as the research collective Forensic Architecture. Photogrammetry, remote sensing, but also visualizations of fluid dynamics are all relevant in this regard. Then, of course, I'm interested in the fact that measuring eludes disciplinary understanding—and that diverse measurement constellations generate a force field constantly being re-explored in the arts.
How systematic is your approach to measuring?

FD:
Measuring has preoccupied me for thirty years. During this time, I have explored many aspects through my artistic work. My approach was not systematic to begin with. At best, it established itself merely because I kept turning the subject around and looking for other aspects. And now that we have isolated and named seven general aspects, I keep discovering them in my own work. I don't know, though, whether that corresponds to your poetological poems. Perhaps you could remind me how programmatically you understand the poetological poem?

MS:
What takes place in the poetological poem is decided aesthetic self-reflection—in terms of both content and form. It involves talking about and through art. I am interested in two aspects: First, aesthetic reflection happens practically, in and through concrete application; second, the poetological poem integrates contemporary knowledge.

I suspect that this also happens with the metric photograph and artistic strategies dealing with measuring. In practice: Measuring is performative. Bruce Nauman's *Dance or Exercise on the Perimeter* very nicely illustrates this: Nauman moves in time to the metronome along a square marked out on the floor. Here, reflection is purely aesthetic and non-propositional. Measuring, measuring by walking, and surveying are reflected on programmatically by executing a specific action: timed pacing. Regarding the second point, the inclusion of know-ledge: Christoph Keller's *Encyclopedia Cinematographica* may serve as an example. His installation, in which animal movements are displayed in a loop on 40 monitors, refers to the body of knowledge housed at the Institute for Scientific Film (IWF). Keller not only reconstructs the animals' units of movement, but also shows how behavioral researchers in the 1950s arranged the animated world according to a matrix. I understand measuring here as questioning—how knowledge was and is generated in film.

What do you make of my conjectures? Or put differently: Do you consider the idea of a poetology for the visual arts fruitful?

FD:
I find your ideas absolutely fruitful, because they pinpoint an aspect of the visual arts often neglected when appreciating art. I believe good art is thinking, and always involves incorporating knowledge. I like the word articulation in this respect: It describes gathering all existing energies or laying them bare through the catalytic effect of the work of art. In my experience, articulating requires immersing oneself in topos and place. In our present context, into measuring. Beyond verbalization, moreover, occurs a form-finding that seeks its means and forms of representation. I have taken the liberty of contributing several of my own art works to this issue of the Bulletin, because they «say» more and more differentiated things about measuring than our schema of seven aspects. But the works are nonpropositional, as you so nicely put it, and cannot be dissolved into declarative sentences.

We have both often talked about art collaborating with art history: Our collection *The Artistic Ruler* nicely exemplifies this because it explores different aspects of measuring and different artistic uses of form. Browsing through these works encourages me to return to the studio and continue working on measuring. What are you going to do this with this overview?

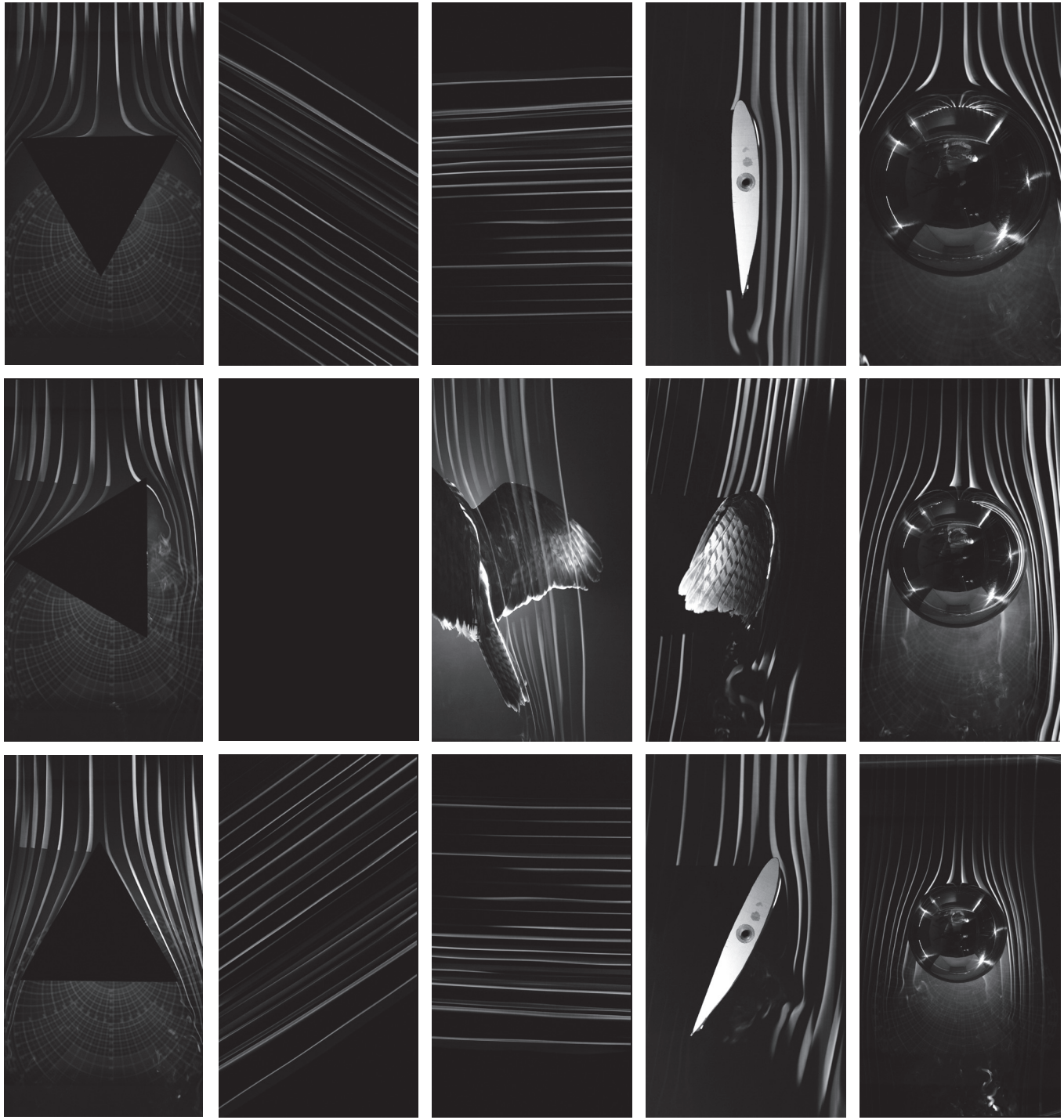
MS:
I have also found choosing pictures for this issue motivating! The overview helps me with comparative viewing, which is traditionally practiced in art history. Juxtaposing the different works makes something visible—either because a motif is repeated or because it is used in variations. «Metric photographs» (or more loosely «images of measuring») display different approaches to and aspects of measuring. When juxtaposed, they begin to speak to each other nonverbally—something happens between them. That's why I consider our collection of images an important epistemological instrument.

I am writing a dissertation on the artistic practices of measuring, and our collection of images has again reminded me how closely measuring and scaling are connected. Both function as a means of determining proportions, which our overview helps me to grasp. You mentioned that you will continue working on measuring in your studio. Which measurements have you got planned in the wind tunnel and which artistic measuring?

FD: I will be surveying the lettering of Cabinet Magazine, that is, exploring the language and volume of the individual letters as well as of the spaces inbetween.

Still 01
Still 02
Still 03
Still 04
Still 05

«But what was then their future
is now my past;
knowing what I know of what was then the future
and is now the past, I wonder
what future was already inscribed in those pictures.»
With Florian Dombois & Fabian Gutscher
by Christoph Oeschger



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Zürcher Hochschule der Künste
Zurich University of the Arts
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From «Memories of a Past Future» https://vimeo.com/387687534 passwort: greenland