

# The Exhibition as Cosmogram

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## **Abstract**

This essay proposes to look at the art exhibition as a model of the world as it appears to itself. If a cosmology depicts how a certain culture perceives the universe, a cosmogram provides a diagrammatic illustration of that universe. Locating the exhibition format within the history of ideas, this essay suggests the contemporary art exhibition as a form that reflects and demonstrates the world today. By looking at the contemporary art exhibition's historical background, and evaluating its implicit and explicit conceptions, its operations, functions, ideology and beliefs, this essay focuses on the deployment and arrangement of temporary constellations of artefacts along alignments of intensity and distribution. To this curatorial gesture of difference and connectedness which informs contemporary art curating, we can call metastable (metastability is defined in thermodynamics as a relation of high energy that is minimized to specific locations of "many-body assemblies," on the verge of collapse). This high energy is located in the contact points between the elements). The exhibition as a cosmogram makes attainable the intricate structure of metastable relations which inform the structural conditions through which meaning is organized. The art exhibition performs the underlying logic of finance, cloud computing, supply chains, public health, the biosphere, and other somewhat balanced systems that are structurally unstable, on the verge of collapse, making it a cosmogram of our world.

**The Exhibition as Cosmogram**<sup>[1]</sup>



Sergei Eisenstein sitting on the Tsarina's throne, while filming *October*, 1927 (photo Credit: Eisenstein Center, Moscow)



Harald Szeemann sitting on the throne on the last night of his 100-day-event *documenta 5: Questioning Reality—Image Worlds Today* at Museum Fridericianum, 1972. The Getty Research Institute, 2011.M.30. Photo: Balthasar Burkhard

The two photos above were taken 45 years apart: one has Sergei Eisenstein sacrilegiously reclining on the throne of the tsarina during the filming of the objects for the storming of the Winter Palace in *October* (1927), and the other has Harald Szeemann ceremoniously seated on a makeshift throne at the final night of *Documenta 5*, which he curated as a 100-day event (1972). The first shows the jester exorcising the king and the latter the jester aspiring to be king. The first is striking a pose for the camera, the other has a group of people self-documenting themselves re-enacting an audience with the king. One is the consummate of Bolshevik revolution reality, the other a budding of imperialist restoration imagination.<sup>[2]</sup> The history of curating, having been written from within a neoliberal setting, perceives its own past as a sequence of singularities. Alexander Dorner (1893-1957), who fled the Nazis from Hanover to the Rhode Island School of Design Museum in Providence, is often given as an example of such singularity. But there is a communist—and more specifically Soviet—pre-history of modern art curating. Famously, a significant number of German and Austrian émigrés in the 1930s and 1940s influenced art, architecture, design, art education and curatorial practices in the US. Those women and men had tremendous

influence.<sup>[3]</sup> But, modern art curating has historically collective features that were abandoned upon arrival to the US—whether it was in the Soviet theatre of Vsevolod Meyerhold (1874–1940) and Sergei Tretyakov (1892–1937), or with Eisenstein (1898–1948) reorganising the Winter Palace for the shooting of *October*, a sense of administration of things through the medium of staging had emerged. In the German communist theatre of Erwin Piscator (1893–1966) and Bertolt Brecht (1898–1956), a conversion from representation into demonstration evolved. This technique can be found in the famous Workers' Club exhibition by Alexander Rodchenko (1891–1956) in Paris in 1925, or in the explosion of exhibitions by El Lissitzky (1890–1941) as an artist and curator in Germany in the late 1920s: in 1926 in Dresden (*Room for Constructivist Art*), in 1928 in Hanover (*The Abstract Cabinet*) and Cologne (*Pressa*), in 1929 in Stuttgart (*FiFo—Film and Photography*), and in 1930 in Dresden again (*Hygiene*). The scenography developed by Lissitzky emphasised a quality of display that made the exhibition an event in itself, and became a model that influenced key figures in the Bauhaus school, such as László Moholy-Nagy (1895–1946), Marcel Breuer (1902–1981), Walter Gropius (1883–1969) and Herbert Bayer (1900–1985). This group even curated an exhibition with the Berlin Workers' Union in 1935 that applied many of the principles developed by Soviet artists.<sup>[4]</sup> This group, along with others from the Bauhaus school, moved to the United States prior to the war, and their influence there was decisive in integrating certain visual values into American high modernism.

These figures were originally given the opportunity to develop their aesthetic proposals as fellow travellers of revolutionary European and Soviet communism. Upon arrival in the US, they each found ways of converting the political connotations their work carried, adjusting it to entrepreneurial and individualistic capitalist constraints. By doing so, not only a whole array of aesthetic propositions was hijacked, but a template of sensory sensibilities that in effect were anti-communist came to mask the social meaning of even the basic terms of function or aesthetics, technique or form—this is what we today recognise as high modernism.<sup>[5]</sup> Beginning in the late 1930s, curating and exhibition design at the Museum of Modern Art in New York was greatly influenced by these figures, and combined with the work of others, such as Friedrich Kiesler (1890–1965), they have converted the aesthetic achievements of the Soviet avant-garde into the entrepreneurial spirit of the US. Just to give two examples: Alfred H. Barr Jr.'s staging of the exhibition as a series of unique irreplaceable moments, highlighted by the separation of the works through a white backdrop, can find its traces in parts of *FiFo*, a groundbreaking multimedia exhibition curated by Lissitzky in which, among other things, enlarged film stills were displayed. These were intense frames from Eisenstein's *Potemkin* and *Strike*, and from Dziga Vertov's *Kino-Glaz* and *Lenin Kino-Pravda*. Another example relates to the well-known connection of Edward Steichen's "The Family of Man" (1955) exhibition with Herbert Bayer's 360-degree field of vision section-perspective of photo installation from 1930. Here, again, both take curatorial forms from Lissitzky's *FiFo*, which made extensive use of layers of images from all directions, including a special projector that allowed films to be shown in a loop and projected onto the floor.

Departing from the similarities and differences between the photos of Eisenstein and Szeemann we arrive at a variety of ways of organising meaning—from universal to global, communicative to connected, revolutionary to restoration, from solidarity to individualist, communism to neoliberalism. Taking this history into consideration, this essay proposes to look at the contemporary art exhibition as a cosmogram. If a cosmology depicts how a certain civilisation perceives the universe, a cosmogram provides a diagrammatic illustration of that universe. Addressing the contemporary art exhibition as a way to organise meaning, it is situated here as a form and a technique that reflects and demonstrates the world as it is perceived and experienced today. By addressing curatorial products and gestures as conceptual maps of the world as it appears to itself, this essay observes the ways in which the exhibition makes attainable intricate structures that rely on intensity and distribution. These are what we can call many-body-assembled-clusters that aim to hold themselves together through relations of repetition and difference. Addressing a series of terms that underline the practices and functions of the contemporary art exhibition, this essay presents the operations and gestures that make it a cosmogram of our

world. Outlining a relation between the way global capitalism works today and the contemporary art exhibition as form, a number of generative terms, operations and gestures are teased out. Drawing on historical avant-garde concepts such as model, demonstration and constellation, and using late-capitalist terms like metastability, mesoscopic, interface and platform, this essay attempts to describe the art exhibition as a cosmogram.

## Map

While a cosmogram offers an illustration of the cosmos—be it ancestral, astronomical or ideological—a map provides a navigational tool that in part relies on and generates the cosmogram.<sup>[6]</sup> A map has often been described as a special form of image in which elements from the world are reduced into a synthetic diagrammatic image that has a specific navigational function. We do not go back to the world time and time again to adjust the map ourselves—be it because of a misrepresentation of the traffic situation on a supposed live-feed google map while driving, or the different sizes afforded to the African continent in a Mercator map or a Goode's Homolosine map. The T and O map, like the one in Isidore of Seville's *Etymologiae* from the seventh century, which compiled the knowledge from hundreds of classical sources, uses a ring to frame a division that is both territorial and political—in this specific case, it identifies the three known continents around the Mediterranean by their distinct populations, each one a descendant of biblical Jonah's sons: Asia/Sem (Shem), Europe/lafeth (Japheth) and Africa/Cham (Ham). This diagrammatic image stands for the world. As we know so well, this information reduction provides models of the world that in turn stand in for the world itself; the map therefore operates as an interface. The map with which we navigate a territory, and negotiate actual space and pictorial rendering, is an operational image that is put to work in actual space. But the work it is doing goes beyond the mere tracing of a route from one point to another: it is the process of our own mapping that is at the heart of the experience of operational images. The limited access to interfaces and the blocking of any access to code, is the main feature of our contemporary digital devices—from software, to batteries, add-ons, etc.—they are all boundlessly contained closed systems.<sup>[7]</sup>

Alberto Toscano and Jeff Kinkle write of the mapping of the universe, and its complex usage of military and commercial technologies, as a remarkably unreliable guide for the social realities on which such mappings are based. They look at the way we produce the absolute mapping of the universe within the context of the boundless containment charted by capital as world-system, and conclude “[t]he map will hinder the mapping, as we come to be captivated by fetishes of scale and precision that smooth over the world's contradictions.”<sup>[8]</sup> When looking at the maps of Africa drawn in the sixteenth's century by Johannes Leo Africanus (al-Hasan ibn Muhammad al-Wazzan al-Fasi), one notices that the river routes and coastlines are detailed, and in that we get a sense of mapping as embodied journey. At the same time, parts of the land, for example, between the Nile river and the eastern coast of Africa, seem uneven, estimated, and in that we get a sense of mapping as approximation. The map therefore holds as its conditions of possibility both journey and estimate, embodiment and calculation, the act of mapping and that of approximation. Our maps today, like any of our prescribed ideological interfaces, channel and obstruct our view of the world. But on a more general level of argumentation, these interfaces call into question our actual ability for seeing to begin with.

## Mesoscopic

The year 2018 may be remembered as the one of graphic cards shortage. The price for the cards soared, in parallel with the price of Bitcoin and other cryptocurrencies. The graphic cards' strong processing capabilities made them an ideal tool for amateur crypto mining. Interestingly enough, the graphic card is usually used for rendering visual plans and programs—from architectural plans to videogames—but in currency mining it was used

for something that has no visual presence as far as human vision is considered. This is a telling example of where power resides today—unattainable by the human eye.

With neoliberalism as an economic philosophy exerting its dominance in the last fifty years, evaluation systems have shifted from assessing value to estimating fluctuating prices.<sup>[9]</sup> With financialisation, the locus of activity moved from labour to debt, the social realities of digital technologies did not resolve alienation but folded it into a totalising metabolic synchronisation. The political meaning of this eradication of the social morphed any notion of revolution into mere disruption. Under these conditions, the exploration of the possible, which was meaning-oriented, has transformed into a pattern augmentation of the probable, and the aesthetic application of these realities switched any notion of a cultural avant-garde to a mere speculation within the parameters of capitalist perpetuation.<sup>[10]</sup> Political power has retreated from our visual control—from the mesoscopic scale. The mesoscopic is the field of vision we inhabit between the microscopic and the telescopic and where entanglements abound. We, who work in the field of the visual, need to re-evaluate its meaning in relation to power. The worlds of finance, surveillance and biotechnology operate in modes that take place outside of our vision, in the sub-visual, such as the spheres of genetic manipulation, meta-data aggregation, algorithmic serials, machine learning and satellite triangulation. In this reality, the field of the seen, the sphere in which our vision operates, and our practices are actualised, needs to be re-thought.

There appears, therefore, a growing realisation that we can no longer see. This may sound counter-intuitive: radiography, nuclear magnetic resonance and cryoelectronic microscopy allow us to see detailed cells, and ultra-deep field space telescope capabilities provide imaging by radio that then can be algorithmically arranged to visualise a supermassive black hole. But these devices of microscopic and telescopic capacities beg the question as to what can we see within capital. These images that become attainable to us—available in the mesoscopic scale of vision—are there to compensate for the fact that whatever we are seeing stands for what we cannot see. They give us little agency or power over our social reality.

When writing about the visual depictions of capital, Susan Buck-Morss compares the *Tableau économique* (input-output chart) with the X and Y chart. While the first presumes some things are outside the economy—and the outcome of them entering the economy results in certain products—the latter can only see correlations within the economy, while being willingly incompetent in delineating any outside to the economy. What Buck-Morss noticed<sup>[11]</sup> was that no one was using input-output methods anymore, and for good reason: no one can envision an outside to capitalism.<sup>[11]</sup> While input-output can envision an outside to the economy, i.e. capitalism—with talent, resources, labour power and other elements being external to capitalist exchange and commodification—the chart of X and Y axes can only discuss interactions within “the economy”. This realisation sits at the heart of contemporary art curating: the ability to produce unexpected connections between seemingly divorced fields has been a mainstay of contemporary exhibitions. These have operated as metonyms, abiding abductive logic, wherein concepts from one field would be applied to products of another, where affinities would be built between supposedly unrelated subjects and histories. Curating, when celebrated in recent decades, is deemed successful for exactly the ability to make these exciting connections and by not addressing the setting itself. From Szeemann’s Phillip Morris sponsored “When Attitudes Become Form” at Kunsthalle Bern (1969), where the template of private-public partnership was formed, to the exhibitions that gained curators like Jan Hoet, Bart De Baere, Hans Ulrich Obrist, Massimiliano Gioni, Carolyn Christov-Bakargiev and others acclaim and recognition, since the 1980s until today, we see how curating as a practice performed the X and Y connection.<sup>[12]</sup>

Buck-Morss returns to Adam Smith’s theological use of the term “The Invisible Hand” of the market to come up

with a remarkable suggestion. The common usage of this phrase, following Smith, has aimed to evoke a utilitarian doctrine by which individual pursuit of self-realisation makes for a calculated balance that the whole of the economy enjoys. But Buck-Morss emphasises that “Smith’s schema is more radical and more extravagant. According to him, the invisible hand of the natural order counts precisely on the destabilizing surplus of a desire blind to the whole and ignorant of its effects.” For her, “[t]his unseen hand opens up a blind spot in the social field, yet holds the whole together.”<sup>[13]</sup> The reality of life for someone in Scotland of the eighteenth century, with their personal relations pertaining mainly to their familial, religious and other immediate communities, meant they were not dictated first and foremost by “the economy”. Within a reality of brutal colonial rule, of slave trade and plantation monoculture—this economic reality being beyond their vision, provided blissful ignorance—it demanded invisibility for all those other personal relations to be kept moral and just. Therefore, as Buck-Morss states, Smith is compelled to conjure blindness as the guiding image of the economy. For a balanced economic satisfaction to be envisioned at home, without accounting for the horrific price of the pursuit of personal gains overseas, Smith calls on the invisible hand to guide him into pious loss of sight.

The mesoscopic helps us to conceptualise the exhibition beyond a means of representation. Beyond its devices of obfuscation through visual image-making and sub-visual operations, the mesoscopic under capital is put into question. While taking into consideration the microscopic and the telescopic, together with the control systems they entail, the mesoscopic needs to account for those trans-visual operations of power. As the exhibition frames interactions of duration, vision and space on the scale of the things we can actually see, its political meaning activates a trans-visual level that is manifested on the mesoscopic field. As both a retinal and non-retinal viewing mechanism, the exhibition embodies a much wider aesthetic experience that allows us to view the world.

## Model

When considering the limits of seeing power under capitalism, and as we take into account its most recent sub-visual techniques and devices, the exhibition as model provides a trans-visual operation. Yet what is it that the contemporary art exhibition shows us? As it is contained and defined in time and space, the exhibition brings forth relations, makes them tangible and attainable to the senses. We can consider the exhibition as a model that allows for relations to be assessed and measured.

Roland Barthes’s description of Bertolt Brecht’s approach to representation is useful here. Barthes sees it as a relation to reality that produces the position of the viewer as scenes of unfolding, “erecting a meaning but manifesting the production of that meaning, they accomplish the coincidence of the visual and the ideal *découpages*.”<sup>[14]</sup> Barthes describes the theatre away from the acoustics model of deliberation and as part of the world of geometry, making it less about the arena and more about spatial connections: “The theatre is precisely that practice which calculates the place of things as they are observed”, he writes.<sup>[15]</sup>

The place, position, relation of things, as they are observed, considered and presented, would be the curatorial sensibility of alignments. These are to be perceived as elements of a model. Barthes emphasises the relation between theatre and painting, using Diderot’s aesthetic theory that rests on the pictorial tableau: “... the perfect play is a succession of tableaux, that is, a gallery, an exhibition; the stage offers the spectator ‘as many real tableaux as there are in the action moments favorable to the painter.’”<sup>[16]</sup> The tableau is the form of the scene in Brecht’s epic theatre. It is much more about exhibition as the actualisation of gestures than it is about theatre as narrative. Brecht’s epic theatre does not “develop actions but represent conditions”, Walter Benjamin concludes.<sup>[17]</sup> In Brechtian pedagogy, Fredric Jameson explains, understanding how capitalism works is

inseparable from showing how it works.<sup>[18]</sup> Businessmen, peasants and the unemployed, experience economics in the modern sense in which this dynamism circulates through politics. Money as a system of concrete abstractions demands that the proletariat be converted to other groups, for the sake of the demonstration. The irrepresentability of money is key in Brecht's plays as it appears as an absence for the poor and as capital for the rich.<sup>[19]</sup> This is not the idea of representing capitalism, but of acting out its meaning. The model provides a trans-visual operation critically dealing with the limits of seeing power under capitalism.

Taking on these notions, the exhibition is a site where relations are *demonstrated*. The exhibition operates as model, both in how it is acting out modalities of seeing and meaning by way of alignments and connections, and it is a model in that it actualises those relations. Okwui Enwezor's "The Short Century: Independence and Liberation Movements in Africa, 1945–1994" (2001–02) stands as such an exhibition model; it does so by making the claim that the anti-colonial struggles and African liberation movements following World War II were the generators and the precursors for the 1960s and 1970s political, artistic and student movements in the West. Taking its title from Eric Hobsbawm's then influential book *The Age of Extremes: The Short Twentieth Century, 1914–1991* (1994), which bracketed a twentieth century between the Great War and the fall of the Soviet bloc—two events that at the time were understood as European in nature—Enwezor's exhibition framed the post-war years from outside that territory and context. The exhibition countered the established narrative of the time, which still saw the events of 1968 in the capitals of the industrial West as a pivotal moment that generated a history of new cultural, political, environmental and social thinking. The historical focus of Enwezor's exhibition put those events in the periphery of its timeline. Relying heavily on representation in this exhibition, a model that remapped the history of art, the New Left, and African history was actualised.<sup>[20]</sup> Through the connections it generates and sets in motion, the exhibition as model goes beyond mere representation; instead it demonstrates relations.

## Demonstration

To give a historical example of demonstration, we can take the scene in Jean Luc Godard's *La Chinoise* (1967), in which Jean-Pierre Léaud is being interviewed as Guillaume, a member of a summer-break Maoist student cell in Paris. Behind him in the scene is a wall with posters and newspaper clips, as he is shown in close up, answering an inaudible question:

An actor? It's hard to say. (Silence. An inaudible question) Yes. Yes. I'm an actor. (Guillaume pauses and looks down. He picks up his head). I'll show you something. It will give you an idea of what is theatre. (Guillaume picks up a roll of bandages and starts covering his head). Young Chinese students protested in Moscow and of course the Russian police beat them up. (Guillaume continues to cover his face with the bandage. His eyes are already covered by it). The next day, in protest, the Chinese met in front of their embassy with all the Western reporters, guys from *Life*, *France Soir* and so on. (Now Guillaume's whole face is covered with the bandage). And a young Chinese student came up, his face covered with bandages, and started yelling (Guillaume begins to shout with his covered face aimed directly at the camera). "Look what they did to me. Look what the dirty revisionists did." (Guillaume turns his covered face to the interviewer). So the reporters rushed over and began taking photos as he removed his bandages. They expected a cut face, covered with blood or something. (Guillaume starts taking the bandage off). And he carefully removed his bandages as they took photos. (Slowly Guillaume's face is uncovered). When they were all off, they realized his face was alright. So the reporters began yelling "this Chinaman's a fake. He's a clown, what is this?" But they hadn't understood. They didn't realize it was theatre, real Theatre; A reflection on reality like Brecht or Shakespeare.

From the beginning of the scene, Guillaume, the fictional French Maoist student, and Jean-Pierre Léaud, the actor, are both present in the interview (“An actor? It’s hard to say. Yes. Yes. I’m an actor”). Several roles are being played here, and that role is not only that of Guillaume, the French student, but of Léaud as actor as well. Guillaume/Léaud’s performance of the actions of the Chinese student in front of the camera present us with the power of demonstration rather than representation (as do the actions of the Chinese student himself in the story). It operates within a site of articulation (the presence of the foreign media in the story and the interviewer/director of *La Chinoise*). When perceived as a representation (the foreign media’s expectations) these actions of the Chinese student amount to a lie, a deceit, and the person playing the role is perceived a fake (the foreign media’s response). Instead, Guillaume/Léaud/Chinese student are all acting out a role, and that should therefore be understood not as a representation but as a demonstration of a relation to truth. Here, acting is demonstrating.

Oscillating between the concept and the object, negotiating the relations between abstraction and concreteness, exhibitions appear less about representations and more about modalities—involving actual material things as a way of conceptualising and debating through concepts. The exhibition as an event, in a narrow sense, can be characterised by a suspended duration. With this suspension, the exhibition conceptualises singularities. It is a process through which a conceptual framework arises from specific instances. A powerful example for demonstrative curatorial force can be found in “The Potosí Principle: How Can We Sing the Song of the Lord in an Alien Land?” (2010–12), curated by Alice Creischer and Andreas Siekmann, together with Max Jorge Hinderer.<sup>[21]</sup> The deliberately didactic deployment of the exhibition positioned the viewer in front of a Harun Farocki film (*The Silver and The Cross*, 2010), or *Imposición de la casulla a San Ildefonso* (1603) by Juan Pantoja de la Cruz, with detailed instructions as to what and how these different artworks relate thematically. This compiling of an archive and its deployment make relations attainable between documents distant in time and space. Through a variety of materials—documents, contemporary artworks and historical artefacts—the exhibition demonstrated the logic of the silver mines of Potosí from when the conquistadors colonised it to the contemporary extractive operations involving migrant workers and surveillance technologies.

## Constellation

Famed exhibition designer Herbert Bayer defined the practice that organised the itinerary of the exhibition as a “dynamic path of thought”. In a lecture given at New York University on 5 December 1940, Bayer spoke of the panorama versus montage to describe his idea of “extended vision” for which he made his famous Diagram of 360 Degrees Field of Vision with the eye connecting to various surfaces of display around it:

The consciousness of the relativity and the dynamic interrelation of phenomena teaches us that we cannot approach the known as well as the unknown from a fixed point of view. It teaches us that we must look at things from many standpoints [...] The idea of panoramic point of view has disappeared, because we dissect and put together again. Thus we have conceived a new view which is super-dimensional: the montage.<sup>[22]</sup>

Shifting the focus from the subjective experience of the viewer to a more general understanding of the exhibition as event, we now call it “constellation”. In a few short passages in *Negative Dialectics* (1966), Theodor Adorno defines constellations of thinking in a way that describes the contemporary art exhibition:

Where it appears essentially as language, becoming portrayal, it does not define its concepts. It obtains



their objectivity through the relationship in which it posits the concepts, centered around a thing. It thereby serves the intention of the concept, to wholly express what is meant. Solely constellations represent, from without, what the concept has cut away from within [...] the thing itself is its context, not its pure selfness [...] To become aware of the constellation in which the thing stands, means so much as to decode the one which the latter bears within itself, as what has come to be. [...] As a constellation the theoretical thought circles around the concept, which it would like to open, hoping, that it springs ajar like the lock of a heavily guarded safe: only not by means of a single key or a single number, but by a number-combination.<sup>[23]</sup>

This formulation has had many iterations since, the most celebrated is its variation as singularity, when the conditions determine the rules of engagement. Michel Serres put it simply in an interview he gave to Bruno Latour:

But, even more important, a single key won't open all locks [...] Philosophy doesn't consist of marshaling ready-made solutions proffered by a particular method or parading all those problems in a category resolved by this method. Because there is no universal method. Which is the reason, to answer your question, for drawing an appropriate method from the very problem one has undertaken, to resolve. Thus, the best solutions are local, singular, specific, adapted, original, regional. [...] Conversely, the best synthesis only takes place on a field of maximal differences—striped like a zebra or a tiger, knotted, mixed together—a harlequin's cape.<sup>[24]</sup>

In our description of exhibitions, constellation is the name for the way in which a concept emerges from a set of relations that are drawn through display. Curator Helen Molesworth described it compellingly by calling for a feminist form of curating. She describes the relation between artworks in a horizontal constellation wherein the new does not cancel out the old, and each work defines the others in a kind of "sisterhood": "Think of the moment a new baby comes home, an arrival that simultaneously produces a mother, a sister, an aunt, and a grandmother: everybody's identity shifts."<sup>[25]</sup> This beautiful formulation both retains each work's specificity, and at the same time highlights the affinity to other works, and the impact within the constellation.

## Algorithmic and Cybernetic

The formulation of what Bayer called "dynamic path of thought" defines the subject or theme of the exhibition through connections and relations, which inform each piece of the exhibit. Meaning is made through the way things are organised. This is the look we are still accustomed to—white walls receive artificial lighting that is then thrown back into the viewing space to avoid any bright contrast for the viewer. This is done as works are suspended on walls like pictures (at the time that was done with a string hanging from a railing going along the wall where it meets the ceiling). The works lose their physicality as they hover as images, but they gain their material texture by the even atmospheric lighting. The works are separated from each other in measured intervals, usually levelled in height along an imagined line around 144–150 cm from the floor, where the eyes of the imagined viewer will rest (male in this case). Each work is divided from the rest to highlight its autonomy and singularity, with an adjacent wall text dedicated to each artwork and/or cluster of works, while the overall arrangement calls our attention to formal affinities and differences.<sup>[26]</sup> This can be called algorithmic curating, as the actual display is done through the activation of an equation, in this case, the repeated gaps between artworks along the exhibition wall. As the viewer enters the gallery, the curation is supposed to disappear and

centuries of debate around hierarchy and text/image relations are supposed to dissolve into the exhibition space. The scenography of this style of exhibition-making gives focus to the artworks as unique objects, while aiming to erase all the techniques that enable this form of display. This type of display, which is meticulously planned as an emptying-out of the gallery space, performs itself as invisible, while relying on a mathematical deployment pattern—this celebration of American metric innovation, cemented by Barr at MoMA, we can call algorithmic curating.

As the engineering of relations was being conceptualised in botany and warfare in the 1940s, another form of curatorial gesture evolved. Photographer, botanist and curator Edward Steichen (1879–1973), was appointed head of the photography department at the Museum of Modern Art, after the retirement of its founder Beaumont Newhall, whose project at the museum was to secure photography's status as an art form. Not having a background in academic research of art history, while having been a successful magazine photographer and photo editor, Steichen's project was very different. His tenure at MoMA is characterised by an attempt to engage photography with society and the category of the social in general. Steichen was the Director of Photography at MoMA from 1947 to 1962. While Barr's linear sequence organised itself spatially through an equation put to work through gaps and exhibits, Steichen organised social and natural orders according to feedback loops, especially in his seminal museum exhibitions (all designed by Bayer) "The Road to Victory" and "Power in the Pacific" (shown during World War II, before his tenure), and his major exhibition "The Family of Man" (1955). Steichen's career as photographer, his work with the US Airforce during World War II, his flower exhibition at the museum in 1936, and his work on "The Family of Man" correspond with the new science that was developing at the time and that informed his work as curator—cybernetics. Norbert Wiener's 1948 book of the same name proposed a form of systemic order and communication that includes the organic and machinic, the personal and social, the economic and physical.<sup>[27]</sup> Steichen's way of working with complexity and contradictions can be compared to the work of his contemporaries in engineering, architecture, urban planning, economics, social sciences and the arts (from Buckminster Fuller to André Malraux). His exhibitions saw curating photography as a way of curating the world depicted in the photos.<sup>[28]</sup> The visual and spatial organisation of meaning in the gallery was met with a cybernetic understanding of systemic order—in his case through patterns of behaviour in different human societies, in ecological systems, and through archetypical modules. Steichen's protocols for patterns recognition in social, human, botanic, and other complex systems—as conveyed through photographs—rely on preconceived categories like individual, organism, emotion, which in many cases are irrelevant to the things that are actually depicted in the photos. Therefore, it can be argued that Steichen's formative MoMA exhibitions during and after World War II developed what can be labelled cybernetic curating. The all-encompassing positioning of imagery in Steichen's cybernetic curating corresponds with similar propositions developed in computer science of his time.<sup>[29]</sup>

When asked by Rudolf Augstein and Georg Wolff of *Der Spiegel* in an interview that was published posthumously, Nazi philosopher Martin Heidegger replied to the question "And what now takes the place of philosophy?" with a single word: "Cybernetics".<sup>[30]</sup> The cybernetic scales, which equated control and communication in the animal and the machine—as the full title of Wiener's 1948 cybernetics book reads—had tipped for Heidegger, and nature was subsumed into this operational system. At the heart of our cybernetic understanding is a shadowing of an enemy in a battlefield. Coming out of the "anti-aircraft predictor" in the Battle of Britain, cybernetics as an applied science based its concept of feedback on the precondition of an enemy. In short, the natural state of affairs perceived by cybernetics is one of perpetual all-out war.<sup>[31]</sup> This realisation is most paradoxical in the premise of "The Family of Man."

## Metastability

Suggesting the exhibition as cosmogram allows us to look at its features as a constellation, interface and platform. Referring to the exhibition under these terms is a means of relating to the exhibition as a model that organises alignments, thus accounting for the limits of the mesoscopic. Yet, all these considerations beg the question: What is the exhibition demonstrating?

Metastability is a term that comes from thermodynamics and describes a relation of high energy that is minimised to specific locations of “many-body assemblies”.<sup>[32]</sup> This high energy is located in the contact points *between* elements. Metastable forms are structurally unstable, on the verge of collapse, yet somehow part of balanced systems. By their nature, meta-stable structures are temporary. With a heap of ice crystals and snow on a steep slope, or a pile of sand grains, very specific conditions are needed to contain their unstable configurations—intense relations that are held together by the smallest contact point of each grain. Minimum points of contact and maximum intensity are the markers of metastability.<sup>[33]</sup> This is also a way to describe a contemporary art exhibition; metastability is the syntax that holds it together. The exhibition is a metastable event, containing high-intensity relations between its separate and different elements.

When looking at the exhibition as a site for organising meaning, curating amounts to staging relations. The exhibition as model makes curatorial constellations a practice of demonstration. As the art exhibition makes attainable intricate structures of many-body-assembled, which rely on intensity and distribution, the contemporary art exhibition demonstrates the underlying logic of finance, public health systems, cloud computing, the biosphere, supply chains, infrastructure and other somewhat balanced systems that are structurally unstable—on the verge of collapse. From “flattening the curve” during the Covid pandemic, to on-demand availability of computer system resources and data storage, from crises-prone financial settings to the failure of the Texas electricity grid, from the traffic jam of container vessels in the Suez Canal to the destruction of the biosphere—the contemporary art exhibition, organised through metastable relations of temporary constellations, demonstrates the world as it is perceived to itself, making it a cosmogram.

## Footnotes

1. Thanks to Nicholas Aikens, Mick Wilson and Martin MacCabe, Francis Halsall and Fredrik Svensk for their valuable remarks and insights.
2. For Szeemann’s figure and the practices he pioneered as an epitome of the neoliberal agent, see, for example, Simon, Joshua. “Grandfather: A Pioneer Like Us’: Harald Szeemann at Swiss Institute, New York”. *Mousse Magazine*. Summer. 2019. Available at <http://moussemagazine.it/grandfather-a-pioneer-like-us-harald-szeemann-at-swiss-institute-new-york-joshua-simon-2019/> (2021-06-08).
3. Staniszewski, Mary Anne. “Framing Installation Design: The International Avant-Gardes”. In *The Power of Display: A History of Exhibition Installations at the Museum of Modern Art*. Cambridge, MA: The MIT Press. 1998. pp. 3-24.
4. This in parallel with Herbert Bayer’s work with the Nazis. Later on, his works were denounced by the regime and even displayed in the “Degenerate Art” exhibition in the Munich Institute of Archaeology, 1937.
5. It is worth comparing Alfred H. Barr Jr.’s “Cubism and Abstract Art” from 1936 and its famous diagram in which all roads supposedly lead to abstraction, to other contemporaries who also attempted to

- historicise modern art as it was happening. Setting off from a quite different perspective, Walter Benjamin completed his version of the history of modern art based on a trajectory that was focused on technique rather than form. His essay “The Artwork in the Age of Mechanical Reproduction” (1935–39), puts an emphasis on the means of production and distribution rather than the non-figurative imagery these works might or might not portray. See Benjamin, Walter. *Illuminations: Essays and Reflections*. Edited by Hannah Arendt, translated by Harry Zohn. New York, NY: Schocken Books. 1968.
6. “Compasses not maps” is the title of an influential passage in Raby, Fiona and Dunne, Anthony. *Speculative Everything: Design, Fiction, and Social Dreaming*. Cambridge, MA: The MIT Press. 2013. pp. 44–45. They highlight the compass as a navigational tool of political imaginary, beyond social and material reality. They refer to the “Political Compass Meme”, which deploys X and Y axes that stretch between economic Right and Left and between authoritarian and libertarian positions, claiming this “type of chart used to illustrate different political positions” (p. 173) to be a compass. Florian Cramer showed the history of this meme as an Alt-right cosmogram of the political, which limits the political spectrum between authoritarian and libertarian, while excluding any social, democratic or labour movement politics. See Cramer, Florian. “The Meme of the “Political Compass”. Paper presented at “The White West III: Automating Apartheid” conference, organised by Ana Teixeira Pinto and Kader Attia at the Burgtheater, Vienna, 13–14 February 2020. Available at <https://www.youtube.com/watch?v=un0VR1NTCa8> (accessed 2021-06-08).
  7. See Galloway, Alexander R. “Are Some Things Unrepresentable?”. *The Interface Effect*. Cambridge: Polity Press. 2012. pp. 78–100.
  8. Toscano, Alberto and Kinkle, Jeff. *Cartographies of The Absolute*. London: Zero Books. 2015. p. 4.
  9. My use of the term neoliberalism here is informed by three separate usages of the term: 1) the precariat reality of self-oriented ready-to-deliver availability in the labour market that is the outcome of post-Fordist outsourcing and offshoring protocols of production; 2) The economic doctrine which conceptualises price as an objectivity that aggregates all the partial knowledge in a certain market; 3) The political project of the global overrides and that forces any state constitution or elected government to comply with rules set by non-elected capitalist indoctrinators (for example in the International Monetary Fund, the World Trade Organization and the European Central Bank).
  10. Manfredo Tafuri has already made the claim that the avant-garde is a bourgeois movement and therefore embodies advanced capitalist values—destruction, abstraction, etc. As such, its historical role has been to cultivate a normalisation of the catastrophic social realities of capitalist domination. See Tafuri, Manfredo. “Toward a Critique of Architectural Ideology” [1969]. In *Architecture Theory since 1968*. Edited by K. Michael Hays, translated by Stephen Sartarelli. Cambridge, MA: The MIT Press. 1998. pp. 6–35. At the same time, this makes what we call Soviet avant-garde a quite different thing. If it is to be perceived as a proletarian movement that embodies communist values, we should therefore look at its visual products from within that logic. As a way of comparison, it is enough to look side-by-side at a Picasso painting of analytical cubism next to an El Lissitzky *Proun*.
  11. See Buck-Morss, Susan. “Envisioning Capital: Political Economy on Display”. *Critical Inquiry*. Vol. 21. No. 2. Winter, 1995. p. 444.
  12. As an ideological construct, the X-Y nexus is far from being solely a contemporary art trait. In popular culture, people like Malcolm Gladwell, who popularises social psychology, or the book *Freakonomics* and its sequels by economist Steven Levitt and journalist Stephen J. Dubner, are ideological products of the neoliberal globalist age, converging price-based economics with behavioural psychology.
  13. Buck-Morss, “Envisioning Capital”, p. 450. Buck-Morss even reminds us of the neoliberal Foucault who, in his later lecture at College de France (1970–1984), “addressed The Wealth of Nations directly, speaking positively of the ‘benign opacity’ of the economic system, the functioning of which is beyond

- the knowledge (and therefore the power) of the state.” *Ibid.*, note 44.
14. Barthes, Roland. “Diderot, Brecht, Eisenstein”. In *Image, Music, Text*. Edited and translated by Stephen Heath. New York, NY: The Noonday Press. 1977. p. 71. Barthes describes representation as a relation between reality and a subject: “representation is not defined directly by imitation: even if one gets rid of notions of the ‘real’, or the ‘vraisemblable’, of the ‘copy’, there will still be representation for so long as a subject (author, reader, spectator or voyeur) casts his gaze towards a horizon on which he cuts out the base of a triangle, his eye (or his mind) forming the apex.” p. 69.
  15. *Ibid.* Barthes writes: “In the theatre, in the cinema, in traditional literature, things are always seen from somewhere. Here we have the geometrical foundation of representation.” p. 76. Geometry here leaves the relations between displayed objects in a given space and moves on to suggest affinities and connectedness that undermines any given narrative that would aim to give a definite calculation of the place of things as they are observed.
  16. *Ibid.*, p. 70.
  17. Benjamin, Walter. “The Author as Producer”. In *Understanding Brecht*. Translated by Anna Bostock. London and New York, NY: Verso. 1998. p. 99. It is worth citing Heiner Müller in this context: “The plot is a model, not a chronicle.” See Müller, Heiner. “The Geste of Citation: Three Points (On Philictetes)” [1978], In *Germania*. Los Angeles, CA: Semiotext(e). 1990. p. 177.
  18. Jameson, Fredric. *Brecht and Method*. London and New York, NY: Verso. 1998. p. 149.
  19. This is the meaning of the Brechtian technique for demonstrating how people act in real existing politics. The acting articulates all acts as staged ones. Barthes writes: “The subject is a false articulation: why this subject in preference to another? The work only begins with the tableau, when the meaning is set into the gesture and the co-ordination of gestures.” Barthes, “Diderot, Brecht, Eisenstein”, p. 76; see also Müller, “The Geste of Citation”, p. 177.
  20. Interestingly enough, Okwui Enwezor’s Documenta 11 (2001–02), which was conceived and commissioned as an extension of his “Short Century”, offered so-called platforms for discussions on the postcolonial condition we are all immersed in—the “post” not standing for an “after” colonialism, as if it was over, but instead referring to the fact of living with the realities and legacies of colonial history. The platforms included: “Democracy Unrealized” in Vienna and Berlin, “Experiments with Truth” in New Delhi, “Creolité and Creolization” in Saint Lucia, “Under Siege” in Lagos, and the exhibition in Kassel, mapping a distributed perspective for cultural and social meaning, which was very attractive for a soft, humane globalisation model. The concept was developed before 9/11 and was executed mainly during the aftermath of the attacks and before the US invasion to Iraq in 2003.
  21. The exhibition was shown at the Museo Nacional Centro de Arte Reina Sofía in Madrid and Haus der Kulturen der Welt, and in 2010 it also travelled to the Museo Nacional de Arte, the Museo Nacional de Etnografía y Folklore in La Paz in 2011, and was shown at Iniva in London in 2012.
  22. Herbert Bayer, “Presentation and Display”, lecture given at New York University, 5 December 1940, typed manuscript, p. 16 (Herbert Bayer Archive, Denver Art Museum, Denver). Quoted in Lugon, Oliver. “Dynamic Paths of Thought: Exhibition Design, Photography and Circulation in the Work of Herbert Bayer”. In *Cinema Beyond Film: Media Epistemology in the Modern Era*. Edited by François Albéra and Maria Tortajada. Amsterdam: Amsterdam University Press. 2010. pp. 133–34. Lugon brings architecture critic Adolf Behne’s definition of the transmission of ideas as the design of movement. In 1928, reviewing the Berlin housing presentation by Moholy-Nagy under the direction of Walter Gropius “Bauen und Wohnen” (Building and Living), he writes: “a new type of exhibition. Here it is not just any material piled up anyhow in a sufficiently large hall and anywhere in front of which the visitor is placed [...] here, rather, the exhibition signifies the organised path of the attentive visitor. And this path alongside particular objects, following a determined and clear direction and order, is identical to the

path of the exhibitor's thoughts. The principles of the modern book layout are here applied for the first time to an exhibition [...] (t)he visitor has the feeling of being engaged in a leisurely stroll while remaining aware that there is an aim. As he moves forward, he sees things from various sides—in a word, he follows the dynamic path of thought in its logical twists and turns". p. 132

23. See Adorno, Theodor. "Constellation" and "Constellation in Science". In *Negative Dialectics*. London: Continuum. 1981 [1966]. pp. 164–168.
24. Serres, Michel with Latour, Bruno. *Conversations on Science, Culture, and Time*. Translated by Roxanne Lapidus. Ann Arbor, MI: The University of Michigan. 1995. p. 91.
25. Molesworth, Helen. "How to Install Art as a Feminist". In *Modern Women: Women Artists at The Museum of Modern Art*. Edited by Cornelia H. Butler and Alexandra Schwartz. New York, NY: Museum of Modern Art. 2010. p. 512.
26. See Staniszewski, Mary Anne. "Creating Installations for Aesthetic Autonomy: Alfred Barr's Exhibition Technique". In *The Power of Display: A History of Exhibition Installations at the Museum of Modern Art*. Cambridge, MA: The MIT Press, 1998. pp. 61–84.
27. See Wiener, Norbert. *Cybernetics: Or Control and Communication in the Animal and the Machine*. Cambridge, MA: The MIT Press, 1965 [1948].
28. See Barthes, Roland. "The Great Family of Man" [1957]. In *Mythologies*. Translated by Annette Lavers. New York, NY: The Noonday Press. 1991. pp. 100–102; see also Turner, Fred. "The Family of Man and the Politics of Attention in Cold War America". *Public Culture*. Vol. 24. No. 1. 2012. pp. 55–84.
29. Wendy Hui Kyong Chun has described the way homophily informs the relation between units in computerised communications. As Chun describes it, computer science took its cue from red-lining in US post-World War II planning that excluded black GI's. See Chun, Wendy Hui Kyong. "Queering Homophily". In *Pattern Discrimination*. By Clemens Apprich, Wendy Hui Kyong Chun, Florian Cramer and Hito Steyerl. Minneapolis, MN, and London: Meson Press and University of Minnesota Press. 2018. pp. 59–98; see also Golumbia, David. *The Politics of Bitcoin: Software as Right-Wing Extremism*. Minneapolis, MN: University of Minnesota Press, 2016.
30. The interview was conducted in 1967 and published after Heidegger's death in 1976. See Heidegger, Martin. "Nur noch ein Gott kann uns retten". *Der Spiegel*. No. 30. May 1976. pp. 193–219. Translated by W. Richardson as "Only a God Can Save Us". In *Heidegger: The Man and the Thinker*. Edited by Thomas Sheehan. London: Routledge. 2001. pp. 45–67. Recently, Yuk Hui picked this famous quote as proof for the philosophical qualities of technology, see Hui, Yuk. *Recursivity and Contingency*. Lanham, MD: Rowman & Littlefield. 2019.
31. See Galison, Peter. "The Ontology of the Enemy: Norbert Wiener and the Cybernetic Vision". *Critical Inquiry*. Vol. 21. Autumn 1994. pp. 228–266. Cyber (*kivernesis* in Greek: 🚢🚢🚢🚢🚢🚢🚢🚢🚢🚢) literally means steering a ship, but is used metaphorically, like in Platos's *Alcibiades I* [134(e)–135(b)], to describe good governance. In our reality of navigation, most of us are in the passive tense of cyber (being controlled and steered online). But we can think of those who are steering well, who are operating cyber; I am particularly thinking of the female captains bringing African refugees to Europe, such as Carola Rackette and Pia Klemp.
32. See Thouless, D.J., Massey, H.S.W. and Brueckner, Keith A. *The Quantum Mechanics of Many-Body Systems*. New York, NY: Academic Press. 1961; and "Materials for Advanced Semiconductor Memories". *MRS Bulletin*. Vol. 43. Issue 5. May 2018. pp. 371–378.
33. For a mechanical description of metastability in physics, see Bovier, Anton and Den Hollander, Frank. *Metastability A Potential-Theoretic Approach*. Heidelberg: Springer. 2015. pp. 3–13. For an exploration of the philosophical meaning of metastability, see Simondon, Gilbert. "The Genesis of the Individual"

[1964]. In *Incorporations*. Edited by Jonathan Crary and Sanford Kwinter. New York, NY: Zone Books, 1992. pp. 297–319.