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## 13 Cross-Fading the Milky Way

*Johan Hartle in conversation with Jeronimo Voss  
about universalism and a realist economy of time\**

### Abstract

Inspired by the work of Anton Pannekoek Johan Hartle and Jeronimo Voss discuss the relationship between astronomy and communism in the work of Jeronimo Voss. In this light, astronomy provides several figures of thought also for understanding the inner necessities of artistic production. Thus, the universe appears as a code for discussing the possibility of universalism, which informs both the histories of communist politics and the paradigm of artistic realism. Also, the futurist horizon, the projection of worlds to come is classically identified with the open cosmos, reflecting upon the possibility and failure of radical progress. In such ways, so the text stresses, the stars can become a source of political and artistic imagination.

**Keywords:** communism, universalism, futurism, progress, temporality, realism

### Inverted Night Sky

*Johan Hartle:* The title of your exhibition ‘Inverted Night Sky’ at the Stedelijk Museum Bureau Amsterdam (SMBA, 15 May – 26 June 2016) is inspired by Anton Pannekoek’s drawings of the Milky Way from the 1920s, currently archived at the Anton Pannekoek Institute for Astronomy in Amsterdam. Can you explain how your artistic work brought you to the institute in the first place and how these drawings eventually inspired your project?

\* This conversation is based on a public interview by Johan Hartle of artist Jeronimo Voss that took place at the Royal Netherlands Academy of Arts and Sciences, Amsterdam, on 9 June 2016.

*Jeronimo Voss:* I was researching the history of the Zeiss Planetarium and its projection system when I visited the archives of the Institute in Amsterdam for the first time in 2013. There I met astronomer Edward van den Heuvel and science historian Chaokang Tai. Van den Heuvel explained to me that these drawings, made by the astronomer and radical socialist Anton Pannekoek, are the most precise depictions of the Milky Way as it appears to the naked eye in a clear and dark night sky. This was the reason why the Zeiss Planetarium translated these drawings into its projection system in order to simulate the Milky Way as it would be visible to the naked eye.

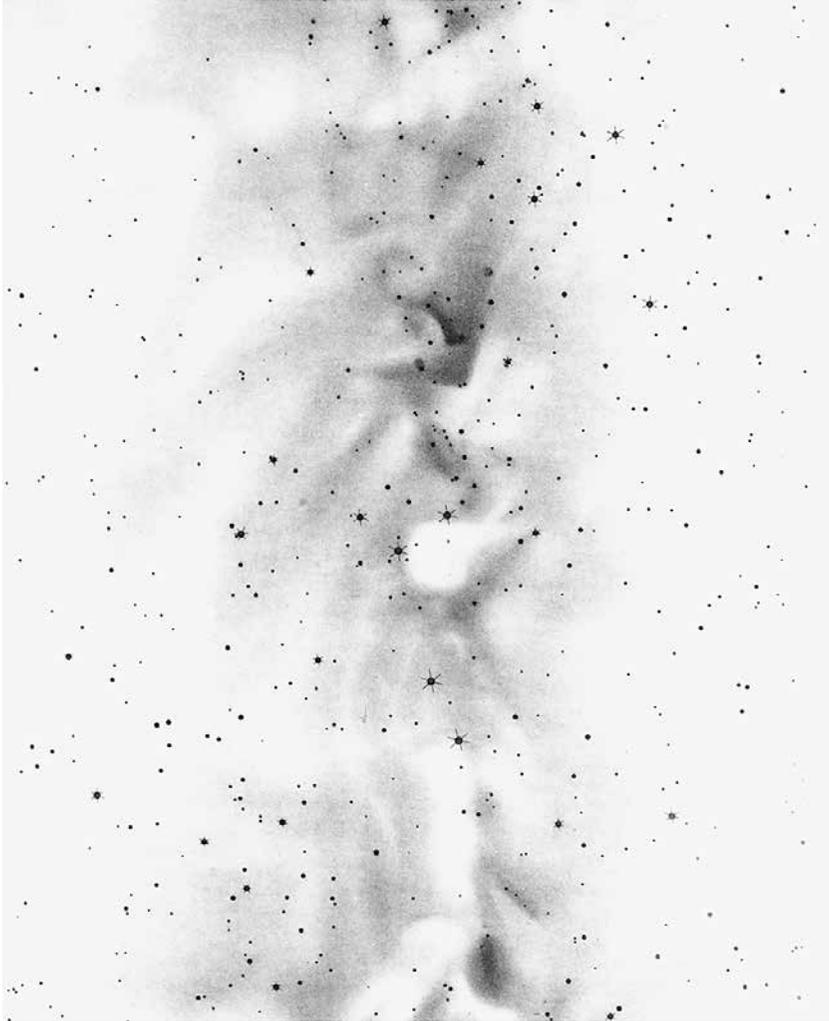
The Zeiss planetarium was invented at a time when the view of the stars had become more and more diffused in metropolitan areas, due to crossfading urban electrification. Today, the Milky Way is even less visible compared to the 1920s. We estimated that the number of viewers that saw Pannekoek's mapping of the Milky Way in the Zeiss projection systems must run into the hundreds of millions. His radical politics never achieved any comparable audience, among others due to his exclusion from the international communist movement in 1921.<sup>1</sup> I was already working with full dome projections for a while, and I wondered how I could translate Pannekoek's drawings of the Milky Way into an experimental dome installation. To me, the fact that the night sky is becoming more and more diffused to the naked eye is nothing to be nostalgic about. I rather see it as an opportunity to develop a more realist view.

## A Realist Universe

*JH:* It is striking that three perspectives converge in your project: art, astronomy, and radical politics. One aspect that unites these three fields is that they all strive for a certain kind of universality. One of the biggest and probably most abysmal questions in artistic practices is the question of *binding norms* and where to find them. Socialism very explicitly deals with universal equality, as difficult as this is to conceptualize and achieve.

<sup>1</sup> In 1920, Vladimir I. Lenin, chairman of the Communist Party in Russia, published *Left-Wing' Communism: An Infantile Disorder* in which he discredited Anton Pannekoek and other council communists of the time, such as Sylvia Pankhurst, Henriette Roland Holst, Herman Gorter, and Amadeo Bordiga. They were subsequently excluded from the Communist International.

**Figure 13.1** Charcoal Drawing of the Milky Way by Anton Pannekoek



Source: Anton Pannekoek, *Die südliche Milchstrasse*, *Annalen van de Bosscha Sterrenwacht* 2:1 (Amsterdam: De Bussy, 1928)

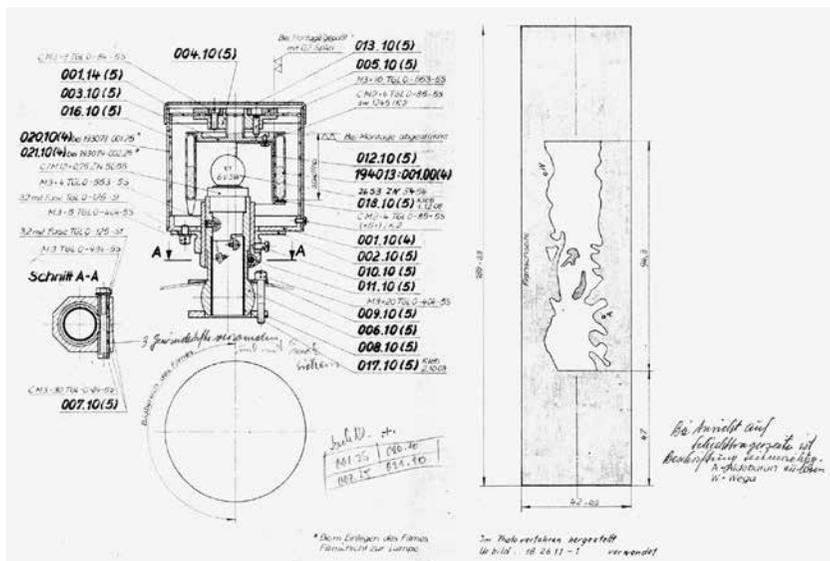
Constructing and interpreting the universe through astronomical means is, in some way, the model case for any kind of universalism. But this is only one possible way of constructing a link between the three perspectives. How do you see this relationship? What conceptual links matter for your artistic practice?

Figure 13.2 Construction of the Zeiss Planetarium in Jena, 1924

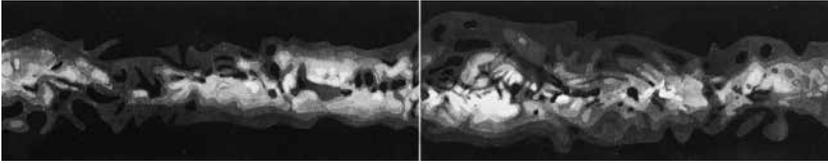


Source: Archive of the Zeiss Planetarium in Jena

Figure 13.3 Construction Plans of a Milky Way Projector in the Zeiss Planetarium from 1964



Source: Archive of the Zeiss Planetarium in Jena

**Figure 13.4** Milky Way projection film of the Zeiss Planetarium, 1927

Source: Archive of the Zeiss Planetarium in Jena

*JV:* I think it's about Realism – and with that I don't mean the common understanding of the traditional naturalist documentarism that sticks to the given. I see Realism, inside and outside the field of art, as a radical expansion of one's own standpoint or perspective. These different fields you mentioned might be separated for practical or moral reasons. But from a realist point of view there is an infinity of overlappings. So I agree, this implies a universalist perspective that goes beyond and connects the traditionally separated domains of visual art, documentarism, science, politics, and everyday life. Thus, during my research in Amsterdam, I was not only interested in Pannekoek's statistical Milky Way astronomy but also in the socialist debates he was involved in.

*JH:* The link between astronomy and radical politics has already inspired you in a series of projects, for example 'The Sun was Captured, yet no Victory' from 2011, or 'Eternity through the Stars' in the Planetarium of the Orangerie for documenta 13. Both deal with models of social transformation that are reflected in a form of cosmology. How exactly do you address the question of universalism in these works?

*JV:* Eternity through the Stars is based on *L'Éternité par les Astres: Hypothèse Astronomique* published in 1872, after the defeat of the Paris Commune, by one of its protagonists, Louis Auguste Blanqui. The book lays out a worldview in which every possible decision or event actually exists in an infinite number of variations within the material reality of physical space. In this view, history is not a product of progress, of an independent flow of time moving from the past through the present toward the future. Instead it appears as a result of decisions. All I added was a small but obvious supplement to Blanqui's hypothesis by tying it closer to its historical context of the Paris Commune of 1871. My interpretation claims that if all kinds of life have already been realized on various far-away Earth-like planets, we can also imagine an infinity of versions where the Commune didn't fail.

**Figure 13.5** Eternity through the Stars (2012) by Jeronimo Voss



Source: Anders Suneberg/documenta 13

Blanqui's hypothesis suggests a very activist worldview, in which every second offers an abundance of options, thus everything could fundamentally change at any given moment, depending on collective decisions. This may also explain why its author spent most of his life in prison for participating in various insurrections and coups d'états. Nevertheless, it is a view that goes beyond fatalist or absolute conceptions of time. His cosmic model introduces an infinite space of possibilities. In many ways, it is the opposite of belief in progress as an independent linear development.

Within the Realism Working Group, we had discussed this topic of progress before, in the context of a collaborative project dealing with the futurist opera *Победа над солнцем* ('Victory over the Sun', premiered in St Petersburg in 1913). The original opera revolved around a futurist revolution in which an airplane takes down the sun from the sky in order to spark a new society. The opera

**Figure 13.6** *The Sun was Captured, yet no Victory* (2011) by Jessica Sehrt and Jeronimo Voss



Source: Markus Tretter/KUB Kunsthaus Bregenz

anticipated a certain spirit of communist futurism that was linked to a strong belief in industrial progress. From today's point of view, we could say that the sun has in fact been captured – with which I mean that technological progress has been tremendous. But this didn't lead to the expected 'victory'. This led us to approach the opera's central theme differently. We programmed an artificial sun, trapped in a circle of stage lights – a silent colour loop constantly repeating the same dramaturgy of pulsating light.<sup>2</sup>

*JH:* Cosmic space is often referred to, directly or indirectly, as a means of addressing utopian possibilities, or even concrete political alternatives. In the works of Russian avant-gardists, futurists and even Bolsheviks such as Alexander Bogdanov – who wrote the Bolshevik utopian sci-fi novel *Red Star* – space exploration and the conquest of the galaxy is equated with technological and social progress.<sup>3</sup> These progressivist models of utopia have inspired much of the Soviet fascination for space exploration, but is only one pole of what we could call astro-utopianism.

<sup>2</sup> [www.anfanggutaallesgut.net](http://www.anfanggutaallesgut.net) (accessed 8 November 2016).

<sup>3</sup> See: Bogdanov 1984.

On the other side of the spectrum, we see authors such as Walter Benjamin who instead equate space with the idea of intangibility, of letting go. Using the term allegory or constellation, Benjamin argues that we build constellations with words, images, and concepts to describe things that ultimately remain ungraspable. This notion is often discussed in close relationship with cosmology: just as we characterize the locations of the stars in terms of constellations that remain fundamentally arbitrary and external to the stars themselves, so do allegories reveal themselves as provisional and incomplete representations.<sup>4</sup>

Both Walter Benjamin and Theodor Adorno have claimed that this way of thinking contains a utopian promise because it leaves the things that are discussed at a respectful distance, as if they were stars: dignified but ungraspable. This view, however, strongly contradicts the optimistic and progress-oriented perspective on the stars that we find in the Russian avant-garde.

*JV:* I agree, but for me this means that ‘Victory over the Sun’ could be read as a dystopian scenario, too. Our intention was to look at the opera as the collective experiment that it was, but to put it in a different, present-day, setting. The technological futurism that formed the crescendo of the opera was realized in a state-socialist regime, which led to the ‘electrification of the whole country’ (Lenin) – without soviet power. Technological progress in Russia was a progress of national capital.

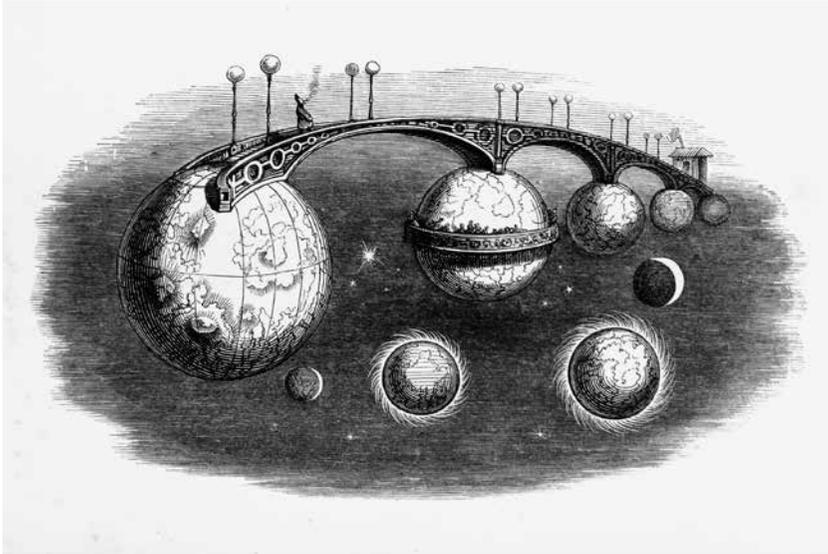
Today, we have smart phones, efficiently managing our extended work schedules – but does it make sense to speak of this as progress? Especially since the global economy seems to be stuck in a drift of continuous slow-down – ‘There is, alas, no progress!’ This phrase from Blanqui’s astronomical hypothesis is truer today than it was in his own time. I believe that it may be more useful to appropriate, rearrange, and adjust the tools we already have at hand instead of waiting for any kind of continuous progress.

*JH:* Your notion connects a number of intellectual traditions. Walter Benjamin was similarly sceptical of the dogmatic belief in progress that was central to much of classical Marxism. He also commented critically on ‘imperialist’ dreams of cosmic conquest, evoking J.J. Grandville’s caricature of a capitalist industrialist walking from planet to planet across iron bridges. One might venture the interpretation that for Benjamin, cosmic space needed to be defended as a realm of dreams rather than a raw material for economic expansion.<sup>5</sup> If I understand correctly, you suggest that one should see Soviet

4 See: Benjamin 1998, 159 ff.

5 As Benjamin writes in *One-Way Street*: Benjamin 1979, 104. See also Benjamin 1999, 65.

**Figure 13.7** Illustration by J.J. Grandville from *Un autre monde*, 1844



Source: J.J. Grandville, *Un autre monde* (Paris, H. Fournier, 1844)

constructivist optimism as a broken optimism which lives through dreams rather than direct expectations.

This would mean two things: First, that there is no radical break between the progressivist idea of conquering space and the emphasis on intangibility, because both were meant allegorically. Both are based on a radical divide between what can (and should) be revealed and signified and what will (and must) remain intangible and undisclosed.

The second point throws an interesting light on your own work and on that of Pannekoek. Your work uses hard-edged geometrical forms, projections of archival materials ('transparent archives'), and, of course, advanced media technologies (complex projections, digitally produced soundscapes). These technological means seem to suggest an optimistic view on technological progress or even a rationalist take on your subject matters. At the same time much of what you are dealing with – including Pannekoek and his record of the Milky Way – seems very anachronistic, as if you were uncovering traces from an almost forgotten past. The historical struggles for socialism and communism have faded away almost as much as the Milky Way has for the naked eye. By its use of technology, your work seems to be reaching out for concrete forms of knowledge and resources while at the same time being slightly melancholic, restoring lost causes and forgotten histories. Your

way of approaching the stars and the history of radical politics would then be as much constructivist and quasi-scientific as it would be allegorical.

*JV:* I am neither interested in lost causes nor do I feel the need to approach them with melancholia. The historical material I deal with is urgent and necessary for me to navigate the present and to at least imagine a future. It is about the search for clarifications and overview, which, I believe, goes along with a certain kind of conceptual and formal coherence. For me, this navigation starts with dismantling the absolute conception of time that not only structures the wage workday but also aims at dictating everything we know about life. It declares even the most obvious potentials to be over, lost in the past and forever out of reach. Surely, we might have good reasons to mourn these few years around the 1920s, that in certain metropolitan areas seemed like a golden age of emancipation on various levels of everyday life. But these progressive times collapsed and were followed by a world economic crisis with its escalation into the rise of European fascism. Today, we're in the midst of an even more substantial global crisis – and fatalism will certainly not prepare us for what we will have to deal with in the future. So my research does not focus on some kind of forgotten history or lost cause – this material is available and very present, and it can be used and rearranged for whatever purpose.

Today, critical theory seems to offer little more than the prediction that the future of class society will be more violence, competition, and destruction – the global retro-fascism of the present states pretty much the same, with the difference that it optimistically embraces this future, while most of the left is still stuck in its own parliamentary traditions. What is missing is a concrete alternative, a realist picture of how a classless global commune could actually work, so as to replace the current conditions. Otherwise we're left with the prospects of a bourgeois futurism building some kind of techno-habitat, probably not on Mars but on Earth, in order to protect itself from the environment it destroyed and the populations it considers superfluous.

## Self-Regulation

*JH:* One of the reasons why the stars have often played a role in socialist ideals was a certain scientific understanding among socialists of how society works. According to this view, laws of nature are projected onto the dynamics of human activity and social organization.

For Charles Fourier, a pioneering author of nineteenth-century socialism, the cosmic order served as a model for social order. Fourier saw similar

mechanisms at work in the cosmic order, the natural world and in human society. He was greatly admired by the Surrealists, by Walter Benjamin and by the Situationists.

This idea of a profound isomorphism between cosmic order, nature, human society, and even the individual subject was highly utopian: it promised the liberation from repressive laws of organization, a liberation that would be driven by natural forces (inclinations, affects, and passions). It held the promise of a society based on a self-regulating system of material forces.

Both the idea of isomorphism and of self-regulation are not as outdated as they might seem. The Frankfurt School philosophers Alexander Kluge and Oskar Negt argue very similarly in their recently reworked study *History & Obstinacy*. Not only do they show great interest in cosmological and astronomical metaphors, they are also intent on reconstructing the general course of history as a system of 'self-regulations'. In their work, human history becomes a history of physical, bodily, mental, and social forces and the inner strife between them, leading towards new forms of organization. The argument heavily relies on the assumption of an isomorphism between the physical, the social and the psychological life. If such a fundamental isomorphism between the stars and society is assumed, the free movement of stellar, social, or individual bodies becomes an immensely utopian image.<sup>6</sup>

Furthermore, the views of Fourier and Negt/Kluge suggest a certain aesthetic strategy too. The self-regulation of social and psychological forces informs the ways in which they write. It leads to the question of how to aesthetically arrange material, how to work with it and how to present it. The idea of self-regulation implies its own directive.

Another link between socialism and interest in the cosmos can be seen in the life and work of Pannekoek. The science historian Chaokang Tai analyses Pannekoek's method of reconstructing the Milky Way. For Pannekoek, the Milky Way was mainly a visual construction of what in fact is an immense collection of stars. In reconstructing the human image of the Milky Way, Pannekoek sought to combine the viewpoints of different people. He asked multiple amateur astronomers to keep a detailed account of their individual night-sky observations. These subjective observations were then averaged and inter-compared in order to represent the real aspect of the Milky Way as true as possible.<sup>7</sup> Pannekoek called it the 'mean subjective image' of the

6 Fourier 1971, 101-110; Negt and Kluge [1981] 2001, 55.

7 Tai 2017.

Milky Way. This bottom-up approach seems to correspond to Pannekoek's political ideas of workers' self-organization in councils.

In this sense you can speak of a certain political ethos, even of a method of construction, one could even say of *representation* – in light of the double meaning of the term in aesthetic and political contexts. I wonder how this inductive method of construction and implicit politics is to be seen in light of your own ideas on realism.

*JV:* Chaokang Tai emphasizes that Pannekoek's concept of historical materialism was closely related to the inductive, bottom-up research method that he utilized in his astronomical work – one should add that Pannekoek was an astronomer before he became a socialist.<sup>8</sup> This is a relevant connection, but it is also the reason why I had no interest in doing the same as Pannekoek did in astronomy. I did not want to translate his empirical method of drawing the Milky Way into my dome projection. In my opinion, a realist view takes into account far more perspectives or, if you like, self-regulated forces of motion, than any inductive, bottom-up research method could possibly do.<sup>9</sup> Pannekoek's visual strategy was successful in creating a naturalist night-sky portrait of the faint visual appearance of the Milky Way – my portrait of the night sky starts from there and then expands towards ticking pulsars, fisheye lens video recordings of kitchens, hallways, workplaces, and conflicting concepts of time.

## Economies of Time

*JV:* When I read Pannekoek's socialist writings, and that of his comrades in the Group of International Communists (GIC Holland),<sup>10</sup> I was most interested in the ways in which they discussed time as a fundament of economic systems. This idea was discussed in publications such as the GIC's *Fundamental Principles of Communist Production and Distribution* (1931), where they state that 'the social revolution is nothing more than the introduction of the labour-hour as the unit measure regulating and controlling

8 Mattick 1962.

9 Anton Pannekoek's celebration of the Philosophy of Joseph Dietzgen hints to how closely he was affiliated with the empiricism Dietzgen called 'inductive socialism' – which he defined as: 'The fundamental proposition of inductive socialism may be thus formulated: there is no eternal principle or an *a priori* idea of the divine, just and free; there is no revelation or a chosen people, but there are material factors which govern human society'. Dietzgen [1873] 1917, 85.

10 Pannekoek joined the GIC Holland in 1927.

**Figure 13.8 Aspects of the Milky Way (2016) by Jeronimo Voss**

Source: Gert Jan van Rooij/Stedelijk Museum Bureau Amsterdam (SMBA)

the whole of economic life'.<sup>11</sup> In Pannekoek's words the collective planning process 'averages the hours of labour needed and directs the attention to the ways open for progress'.<sup>12</sup> He thus referred to a form of bookkeeping comparable to the way he constructed the Milky Way's 'mean subjective image'.<sup>13</sup> Applying this form of measuring – of budgeting, accounting, and bookkeeping of time – to the economic sphere tends to reduce the focus to measurable units of production. But can all socially necessary activities be quantified and inter-compared in this way? In the GIC's *Fundamental Principles*, activities such as housework merely appear as a side note. I don't believe that this view is realistic, neither today nor back in the 1920s or 1930s. Thus, my aim was to expand the visual Milky Way to the Anton Pannekoek Institute's infrastructure and its broader environment.

I also collected material from the institute's current Milky Way research: light pulses of rotating neutron stars, translated into sound. Today, the astronomy institute engages in the measuring of pulsars from various different areas of the Milky Way in order to determine long gravitational waves, ripples in space-time. These pulsars are very stable clocks rotating and emitting electromagnetic waves – we can see them as light or translate

<sup>11</sup> GIC Holland [1931] 1990.

<sup>12</sup> Pannekoek 1950, 61.

<sup>13</sup> Pannekoek 1920.

them into sound. The sound was adjusted and rearranged by artist colleagues and collaborators, Jessica Sehr<sup>14</sup> and Martin Stiehl,<sup>15</sup> with whom I work together in the Realism Working Group. They twisted the noise into the subjective beat of a pulse that changes depending on mood and action.

*JH:* The measure of time is of course central to the critique of political economy. Socially necessary labour time determines value, value is basically congealed time, value in process is capital. Which means, in Marx's political analysis, that the crystallization of time into quantifiable temporal units is at the very basis of capitalism. Finding alternative regimes of time is therefore one of the keys to developing alternative models for social organization. One should also think about the famous formulations from the *Grundrisse*, where Marx writes that society is fundamentally based on its conception and distribution of time.<sup>16</sup> And although the *Grundrisse* had not been available in the early 1930s, that has been a central issue for the GIC in Holland as well.

**Figure 13.9** Inverted Night Sky (2016) by Jeronimo Voss



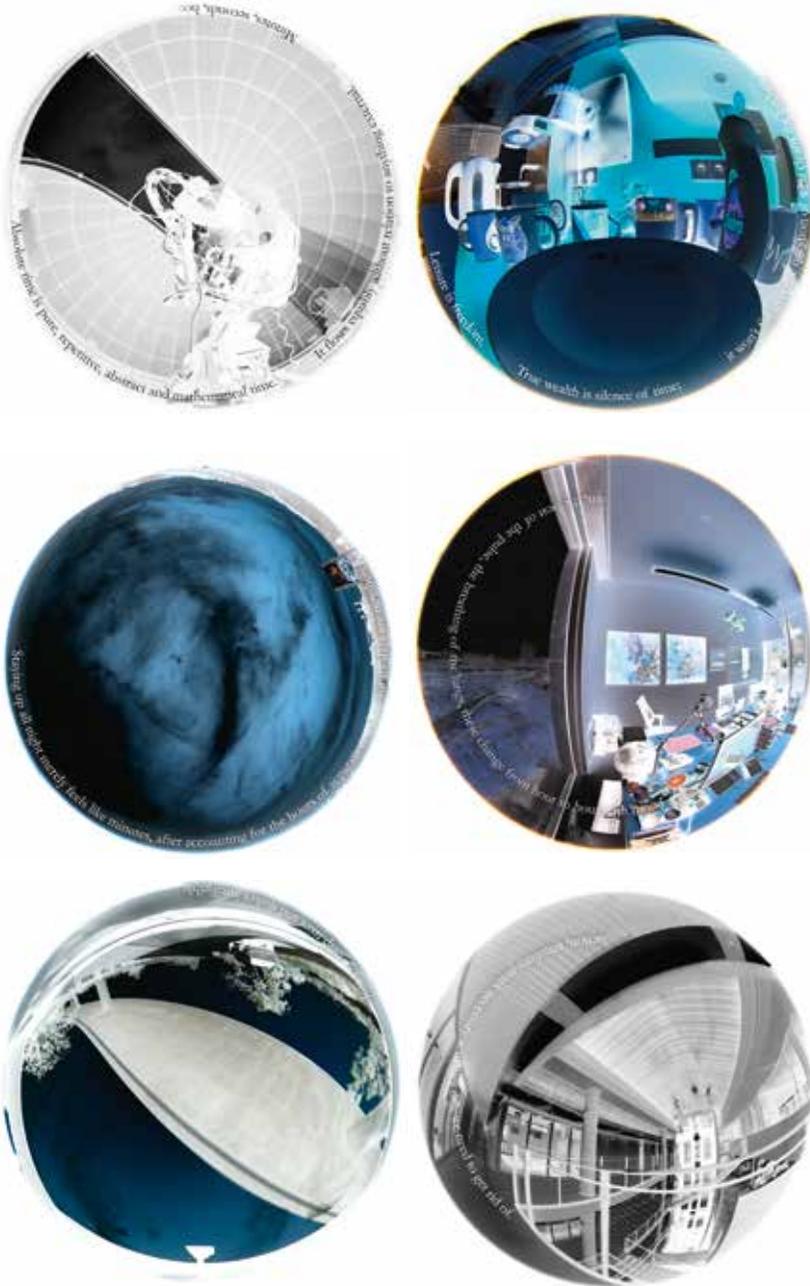
Source: Gert Jan van Rooij/Stedelijk Museum Bureau Amsterdam (SMBA)

14 <http://www.jessicasehrt.com> (accessed 24 January 2017).

15 <http://institut.gebrauchsgrafik.org> (accessed 24 January 2017).

16 Marx 1993.

**Figure 13.10** Various stills from *Inverted Night Sky* (2016) by Jeronimo Voss



Source: Jeronimo Voss

*JV:* We have also discussed this with Paul Mattick Jr in a workshop of the Realism Working Group. The GIC's *Fundamental Principles* can't be applied to the current conditions. Today's productivity has increased drastically compared to the times of the 1930s when the book was published. It doesn't make sense to still measure the time you have invested in production in order to get your share of the social surplus product. Today, we live under conditions of chronic overproduction. So why should anyone receive from society only according to the individual units of lifetime that were spent beforehand? A few years ago, in his essay on *The Nature of Time* physicist Julian Barbour stated: 'Unlike the Emperor dressed in nothing, time is nothing dressed in clothes'.<sup>17</sup> Time is thus something we attire and shape in order to handle the changing world around us. There is no reason to blindly obey it.

A realist economy of time could instead serve as an overview of potential scenarios of production and reproduction. Or, as Pannekoek himself has put it: 'All these interconnections of mutually adapted operations may be represented in a well-ordered scheme, a mental image of the actual process'.<sup>18</sup> And if such an image or scheme starts with empirical data, like Pannekoek's construction of the visible Milky Way, it certainly shouldn't stop there.

## Closures

*JH:* Planetarium architecture closes the universe by erecting a half-round closed-off dome structure. This is a paradoxical move, given the fact that the planetarium aims to represent the infinite universe. With your installation 'Inverted Night Sky' (2016), you refer to this architectural tradition and you use this idea of formal closure to discuss astronomical dimensions. I wonder how you deal with this tension.

*JV:* You can feel very small inside the traditional Zeiss planetarium dome, overwhelmed by the naturalism of the stars. I prefer to use the full dome projection tilted at a 45°-60° angle, so that you as the visitor can decide for yourself to what extent you wish to enter the projection. You can also

<sup>17</sup> Barbour 2009, 2.

<sup>18</sup> Pannekoek 1950, 22. On the same page Pannekoek continues: 'Just as a map or a graph fixes and shows in a plain, to everyone intelligible picture the connections of a complicated totality, so here the state of the total enterprise, at every moment, in all its developments must be rendered visible by adequate representations.'

**Figure 13.11 Communal Villa (2015) by Dogma and Realism Working Group**

Source: Jeronimo Voss

choose to maintain a physical distance to it. 'Inverted Night Sky' is about the inversion of those fatal natural laws that astronomy works with. At the same time, it ponders on the emancipation from the economic order of time that we are currently confronted with. 'Annoying tasks should be accomplished – if at all – with least expenditure of time' is one of the lines rotating in the dome. The organization of temporal orders, and the temporal construction of everyday life – to me, this is what the editing of video time lines is about.

JH: What are your plans for the future?

JV: Currently I am researching the expanding field of time management software, together with artist and programmer Radamés Ajna. Before, in

the Realism Working Group, we had been speculating on an economy of time organized through a syndicate of communal villas.<sup>19</sup> As a montage of coding language, software carries the potential to provide flexible tools customized for concrete user demands. What in fact is customized in the current IT landscape are the behaviours of its users according to respective business and consumer software solutions. We are looking for a different approach and methodology to design software applications that actually support our own collective decision-making.

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## About the Authors

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**Jeronimo Voss** lives and works in Frankfurt/Main, where he studied visual art at the HfBK Städelschule as well as the Free Class. His artistic production could be described as a modelling of time and parallel worlds. Beyond the ruling promises of progress his installations crossfade the past, present, and future into subjective as well as cosmopolitical perspectives. Voss' recent projects were exhibited in various group and solo shows at international institutions such as Kunstverein Bellevue-Saar in Wiesbaden (2019), Galeria Boavista Lisbon (2018), Fact Liverpool (2017), Stedelijk Museum Bureau Amsterdam (2016), House of the World's Cultures (HKW) in Berlin (2015), Fondazione Trussardi in Milan (2014), MMK Museum für Moderne Kunst Frankfurt am Maim (2013), and dOCUMENTA (13) in Kassel (2012). Voss currently teaches Installation Art and Time-Based Media at the Art Institute HGK FHNW in Basel.

