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Beauty Reclaimed –
Towards an Ontology of Sustainable Architecture and Design



Fig. 1

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Crisis

The world is in a crisis. According to the UN, climate change presents the single biggest threat to sustainable development everywhere¹, emissions of greenhouse gases continue to increase² and the earth's annual resources budget is consumed in just 7 months³. Today, the single biggest threat is pollution, emission of greenhouse gases and consumption of resources. According to IPCC, »Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate«.⁴ Temperature increase, sea level rise and ocean acidification are identified as impacts caused by climate change. The availability of necessities like freshwater, food and energy is heavily threatened. In the 2030 Agenda for Sustainable Development, it is pointed out that »survival of many societies and of the biological support systems of the planet is at risk«.⁵ The climate crisis means that the world as we know it may be radically changed in just a few years. Economic growth, technology development and lifestyle including resource-intensive consumption is identified by IPCC as key factors⁶. In the Western world, egoism and short-sighted solutions seem to prevail. The architecture industry only seems interested in instant attention in a constantly accelerated media culture. Spectacular buildings with no consideration to the characteristics of context, material qualities and human scale are built in a constantly increasing speed. According to IPCC, in 2014 the building sector accounted for 31% of total global final energy use, 54% of final electricity demand and 8% of the energy-related CO₂ emissions (excluding indirect emissions due to electricity)⁷. Buildings contribute to human alienation as well as massive consumption of energy and resources. IPCC concludes that

Pathways limiting global warming to 1.5°C with no or limited overshoot would require rapid and far-reaching transitions in energy, land, urban and infrastructure (including transport and buildings), and industrial systems (high confidence).⁸

In other words, architecture is part of the problem. Consumer objects are produced, buildings are built and resources are used and thrown away in a constantly increasing speed. The question is, if architecture is part of the problem, how can it (again) be part of a more sustainable way of living. How can buildings contribute to treating people, material resources and the planet with more care?

1 UN: Achieving the Sustainable Development Goals through Climate Action [online], <<https://unfccc.int/achieving-the-sustainable-development-goals-through-climate-action>> [01.03.2019].

2 UN: Climate Change [online], <<https://sustainabledevelopment.un.org/topics/climatechange>> [01.03.2019].

3 UN: Earth's Annual Resources Budget Consumed in Just 7 Months [online], <<https://unfccc.int/news/earth-s-annual-resources-budget-consumed-in-just-7-months>> [01.03.2019].

4 IPCC: Special Report. Global Warming of 1.5°C [pdf], <https://www.ipcc.ch/sr15/> [08.08.2018].

5 UN: Climate Change [online], <<https://sustainabledevelopment.un.org/topics/climatechange>> [01.03.2019].

6 IPCC: Special Report. Global Warming of 1.5°C [pdf], <https://www.ipcc.ch/sr15/> [08.08.2018].

7 Ibid.

8 Ibid.

Resources

The flow-fund model of production, developed by Georgescu-Roegen, describe the earth as a closed system⁹. Energy, not matter, is exchanged with the rest of the universe in a constant process where nothing is created and nothing is destroyed; it is only transformed. Inside the system, natural resources flow through the economy and end up as waste and pollution. In this model, recycling of material resources is possible, but only if energy and additional materials are added. In continuation, resources must be kept in the economic system as long as possible before it becomes waste. In other words, to slow the degradation of natural resources (the entropy law), buildings must be durable. In the context of the circular economy, the nine Rs, as suggested by Jacqueline Cramer, describe a hierarchy of the possible circularity options: (1) Refuse, (2) Reduce, (3) Reuse, (4) Repair, (5) Refurbish, (6) Remanufacture, (7) Repurpose, (8) Recycle and (9) Recover energy¹⁰. The gradation of the Rs makes it clear that 'refuse' is to prefer, whereas 'recover energy' is the final option in the circular economy. In continuation, longevity as a way to keep material resources in the building system as long as possible may be understood as an essential principle for sustainable building culture. If it is true that pollution, emission of greenhouse gases and consumption of resources are the problem, then maybe keeping resources in the system as long as possible may be part of the solution. If the problem is a short-sighted perspective and careless consumption, then maybe attentiveness is the answer. If the problem is disinterested egotism, then maybe the answer is beauty.

Table

I am sitting at my working table located in my study (fig. 1). My body rests on a chair and my arms lay on top of the table. Light coming from the table lamp illuminates the computer placed on the table. My fingers hit the keyboard and my eyes follow the cursor on the screen. The room is quiet, and the space is filled with concentration. In my everyday use of the chair, table and lamp, I do not pay much attention to them. I enter the room, pull out the chair, sit down, turn on the light and start working at the table without thinking much about the objects themselves. My attention is on the work I am doing; an architectural design, bills to be paid or an essay that has to be written. Will it be ready on time?

I put my hand on the table. The tips of my fingers touch the soft surface of the table and I feel the subtle lines of the wood grain. The silky matte surface gives a calm, yet vivid impression. The direction of the grain follows the length of the table spanning from apron to apron and is supported by four slim legs. The tabletop is just as thick

9 Georgescu-Roegen, Nicholas: *The Entropy Law and the Economic Process*, Cambridge, Massachusetts: Harvard University Press 1971.

10 As described by Nicole van Buren et al., see: van Buren, Nicole. et al.: Towards a circular economy: the role of Dutch logistics industries and governments, in: *Sustainability* 8 (2016) 7, 647 [online], <<http://www.mdpi.com/2071-1050/8/7/647>> [12.02.2019], 3.

as the width of my thumb. I notice the side stretchers, joined by a connecting piece and two diagonal braces that give the table the impression of stability. In a gesture of support, the table establishes a horizontal plane able to hold the weight of my arms, the lamp and the computer, suspended from the floor up against the downward pull of gravity. The wooden table establishes an elevated plane allowing me to sit comfortably on my chair and to do my work. In a dynamic balance, the table offers me a meaningful place for working.

Being

To Heidegger, human being (*Dasein*) is always practically engaged in the world¹¹. Our relation to the world is characterised by concern (*Sorge*) as we are always doing something, producing something or attending to something. It is defined neither by the subject alone nor the object in itself but rather coherence understood as being-in-the-world. *Dasein*'s being-in-the-world means that we are always inseparably connected to things that can be used. Heidegger calls this relation describing our everyday activity ready-to-hand (*Zuhanden*). In the ready-to-hand activity, we use equipment (*Zeug*) in order to do things. However, we are not focused on the things we use, but rather on the act we are doing. We do not pay much attention to the things themselves, but they are meaningful to us when we understand what the things can be used for. In our everyday concern, we understand the being of the thing. In continuation, architecture may be described as one way in which human beings relate to the world through things. We process materials, make tools and build structures in order to inhabit the Earth. Heidegger would say that building is a way to dwell among things in the world.¹² However, when we focus only on the act in the ready-to-hand daily activity, the things themselves become insignificant. Even more so, in a culture where speed and novelty are highly worshipped, the being of things are forgotten. We overlook being in the everyday forgetfulness of practical activity. If suddenly a thing stops working, we pay attention to the thing again. The famous example of the hammer points out that we are more focused on the act of hammering than the hammer itself. If the hammer breaks, the daily, instrumental handling of the hammer is gone, and we suddenly become aware of the hammer as a hammer. The equipment presents itself as an object and it becomes present-at-hand (*Vorhanden*). In the present-at-hand perspective, we can observe the hammer as an object in a more theoretical and scientific way. However, the rich quality of experience is overlooked and the meaning of the thing, based on what the thing can do and its relation to time, is gone. In the present-at-hand perspective, the *Dasein*'s relation to the world is separated into a subject and object relationship. The things as well

11 Heidegger, Martin: *Being and Time*, Oxford: Blackwell Publishers Ltd 2001.

12 Heidegger, Martin: »Building Dwelling Thinking«, in: Martin Heidegger, *Basic Writings*, London: Routledge 2008, 239-256.

as human beings are reduced to mere objects, exposed to a theoretical and scientific gaze. The richness of Daseins being-in-the-world is missed. In continuation, it may be argued that the ready-to-hand everyday forgetfulness of practical activity as well as the present-at-hand cold theoretical gaze and objectification conditions the careless consumption and disinterested egoism guilty in the excessive use of resources and exploitation of the planet.

Presence

In my everyday use of my table, I do not pay much attention to it. I use it without focusing on it and the table is ready-to-hand (*Zuhanden*). If it would break down, or in some way stop working, I would look at it as an object and the table becomes present-at-hand (*Vorhanden*). However, as I touched the grains of the wooden surface, the table became present to me in another way. As pointed out above, Daseins relation to the world is characterised by practical forgetfulness and objectification. However, human existence (*Existenz*) is neither just ready-to-hand nor present-at-hand. Our relation to the world is not just instrumental nor scientific just as Daseins being-in-the-world is not characterised by just subjective judgement or scientific objectivity. Heidegger defines existence not as the synthesis of body and soul but rather as that »kind of Being towards which Dasein can comport itself in one way or another, and always does comport itself somehow, we call ›existence‹ [*Existenz*]«. ¹³ To Heidegger, authentic existence means not just to be, but rather that Dasein is aware of its own being. In the ready-to-hand everyday activity, Dasein is filled with the world and in the present-at-hand objectiveness, the world becomes distant. However, Heidegger opens up a third possibility arguing that those »entities which show themselves in this and for it, and which are understood as entities in the most authentic sense [...] they are conceived as presence«. ¹⁴ In other words, in holding attentiveness to the ready-to-hand, the things return and they are then perceived as presence (*Anwesenheit*). To Heidegger, presence may be triggered by a specific mood (*Stimmung*) that »comes neither from ›outside‹ nor from ›inside‹ but arises out of Being-in-the-world, as a way of such Being«. ¹⁵ When I touched the grains of the wooden table, I was put in a specific mood that opened up an attentiveness to the being of the table. Dasein becomes attentively connected to the being of things through a specific mood. In architecture, a mood may be produced by a textural effect in the surface of a material. It may be triggered by the sensation of bricks forming an arch. Or it may be produced by the play of light and shadow in a relief on a wall. A building may present an invitation to open up to the present moment, to be aware of being right here, right now. The attentive presence that is about seeing things more intense may

¹³ Heidegger: *Being and Time*, 32.

¹⁴ *Ibid*, 48.

¹⁵ *Ibid*, 197.

allow us to be present to the richness and fullness of the moment as we are invited to be aware of our own existence.

Play

Gadamer describes the work of art as characterised by play, e.g. a piece of music. To Gadamer, the »players are not the subjects of play; instead play merely reaches presentation (*Darstellung*) through the players«. ¹⁶ In this perspective, aesthetics is neither an objective property of the thing itself nor is it a purely subjective question. Aesthetics is not objective science nor subjective judgement but rather a transformative process that changes the object as well as the perceiver since »what we experience in a work of art and what invites our attention is how true it is—i.e., to what extent one knows and recognizes something and oneself«. ¹⁷ Characteristic to the play is that it is an event that is renewed each time it is played. The presentation is different each time the essence of the play is presented through the participants. The tempo may be slow, dignified, lively, fast or agitated. The volume may be gentle, strong, trembling, forceful or strong. The mood may be happy, bright, mysterious, majestic or furious. Even though the presentation is neither an objective property nor a subjective question, the quality of the instruments as well as the attitude of the participants influence the work as it is being presented. Similarly, the experience of art and architecture is characterised by an event taking place between the building and the perceiver. Material properties, such as form, colour, proportions and material effects, ¹⁸ define parameters that constitute the perception just as the attitude of the perceiver influences the perception. A picture (*Bild*) is not just a copy of the everyday things we use without paying much attention to them and it is not just an objective description of the world. Rather, as Gadamer argues, the »specific mode of the work of art's presence is the coming-to-presentation of being«. ¹⁹ In this way, art and architecture may be one way to open up an attentive presence as an event taking place that, through material properties, allows us to 'recognise something and oneself'.

Properties

The table is made of ash wood. Wood is formed with the use of tools developed for the specific purpose. A chainsaw has cut down a tree and a circular saw has cut the tree into planks. The cutting of the planks has significantly influenced the properties of the material. Flat grains that make bold curves in the surface characterise the

16 Gadamer, Hans-Georg: *Truth and Method*, London: Continuum 2004, 103.

17 Ibid, 113.

18 In his 1919 lecture, the Danish architect Carl Petersen describes form, colour, proportion and material effects as the four most important elements in forming arts, see: Petersen, Carl: »Stofflige Virkninger«, in: Karen Zahle, Finn Monies and Jørgen Hegner Christensen (ed.), *De gamle mestre*, Copenhagen: Arkitektens Forlag 2000, 120–129.

19 Gadamer: *Truth and Method*, 152.

crown cut timber, whereas vertical grains that make a pattern of straight lines in the surface characterise the quarter cut timber. Because of the cutting technique, quarter cut timber is more stable than crown cut timber. The planks have been glued together to form the plane tabletop and posts have been joined corresponding to the tectonic properties of wood. Heidegger points out that the Greek *tekton* means »to bring forth or to produce«. ²⁰ The Greek word for technique means neither art nor craft but rather »to make something appear, within what is present, as this or that, in this way or in that way«. ²¹ Matter is formed according to its material and tectonic properties into equipment, in this case a table that may be used for working or social gathering. The surface of the crown cut wood has a soft character. The tabletop that spans from apron to apron gives a feeling of tension and direction. The legs give a sensation of holding things up against the pull of gravity and the diagonal braces have a horizontal stabilising quality. In a dynamic balance, the suspended plane offers a meaningful place for working or gathering. In this perspective, the table is not just ready-to-hand equipment used in forgetfulness of everyday practical activity nor is it just a thing exposed to the present-at-hand theoretical gaze and objectification. Through matter formed according to its material and tectonic properties, a meaningful gesture of support and social gathering is recognised.

Knowledge

According to Heidegger, art is aesthetic knowledge, but on its own premise, »a becoming and happening of truth«. ²² In continuation, Gadamer points out that »art is knowledge and experiencing an artwork means sharing in that knowledge«. ²³ As described above, it is about transcending the categories subject and object in favour of understanding art and architecture as an event taking place in the meeting between the work and the perceiver. Just as Gadamer describes the picture as »[...] an event of being—in it being appears, meaningfully and visibly«, ²⁴ the being of the table is unconcealed through the specific tectonic formation of matter in the gesture of support. As aforementioned, knowledge springs from material properties and the everyday, practical concern. Using a bridge as an example, Heidegger describes how the »bridge swings over the stream with ease and power. It does not just connect the banks that are already there. The banks emerge as banks only as the bridge crosses the stream«. ²⁵ The bridge presents the meaningful synthesis of material properties, the gesture of connecting and the place established by the banks of the river as

20 Heidegger: »Building Dwelling Thinking«, 253.

21 Ibid.

22 Heidegger, Martin: »The Origin of the Work of Art«, in: Heidegger, *Basic Writings*, 127.

23 Gadamer: *Truth and Method*, 84.

24 Ibid, 138.

25 Heidegger: »Building Dwelling Thinking«, 248.

well as the bridge itself in mutual interdependence. To Heidegger, building is really dwelling, pointing out that »The Old High German word for building, *buan*, means to dwell«. ²⁶ Building is in itself dwelling and living is to dwell on this earth as mortals. Not in the simple understanding of the word as constructing, but rather the »way in which you are and I am, the manner in which we humans are on Earth, is *buan*, dwelling«. ²⁷ When we dwell, we are among the things in a meaningful way. When I am attentive to the colour and the textural quality of the wooden table, the suggestion of lift and direction, the dynamic balance of the elements, the gesture of support proposed by the table and the spatial character established in the room, I understand something. The table invites me to dwell comfortably in a space allowing me to do my work and through the specific way the table is right here right now, I understand its being. In continuation, architecture may be understood as matter formed according to its material and tectonic properties creating a meaningful gesture of inhabitation and making a place for humans to dwell on Earth.

Beauty

Architecture may be described in many different ways. As an event taking place between the building and the perceiver it may be referred to as overwhelming, poor, impressive or indifferent – and some buildings may even be called beautiful. Describing a van Gogh painting of a pair of peasant shoes, Heidegger argues that the shoes may be seen both as a thing in itself, equipment that may be used for walking as well as a work of art understood as an unconcealment of being. ²⁸ To Heidegger, our relation to the world is neither just instrumental nor scientific, but also aesthetic. In the eyes of the artist, the pair of shoes are not just ordinary and trivial tools for walking just as the picture is not a result of an objectivizing, scientific gaze. Pointing out that the German word for space (*Raum*) has its etymological origin in clearing, Heidegger argues that art is about beauty, but not in the banal understanding of the word, rather as a question of making clear: »That is how self-concealing Being is cleared [...] Beauty is one way in which truth essentially occurs as unconcealment«. ²⁹ Aesthetics is thus the philosophy of aesthetic knowledge identified with the experience of beauty. Referring to Plato, Gadamer points out that the »beautiful is of itself truly ›most radiant‹ (to ekphanestaton)«. ³⁰ In continuation, beauty in architecture may be defined as the feeling of clarity we may experience when we understand matter formed to create a meaningful gesture of inhabitation making a place on Earth.

26 Ibid, 244.

27 Ibid, 245.

28 Heidegger: »The Origin of the Work of Art«, 83–140.

29 Ibid, 116.

30 Gadamer: *Truth and Method*, 476.

Sustainability

As argued in the beginning, a sustainable circular economy is dependent on longevity. However, to Heidegger the characteristic of Daseins being is »the ›thrownness‹ of this entity into its ›there‹; indeed, it is thrown in such a way that, as Being-in-the-world, it is the ›there‹«. ³¹ Human being is thrown into a world, which means a specific context defined by time. In other words, to Heidegger, being is time. The question is, can aesthetic knowledge characterised by transience have durability? Discussing the question of classical, Gadamer points out that »This is just what the word ›classical‹ means: that the duration of a work’s power to speak directly is fundamentally unlimited«. ³² According to Gadamer, Friedrich Schlegel has argued that a »classical work of literature is one that can never be completely understood«. ³³ In continuation, the work of architecture may be richer than what may be experienced at first just as the work of architecture may be more ›‘intelligent‹ than the architect. The experience as an event taking place is never exhausted when the synthesis of matter, gesture and place is inviting to continuous attentive presence. Heidegger points out that to »save the earth is more than to exploit it or even wear it out. Saving the earth does not master the earth and does not subjugate it, which is merely one step from boundless spoliation«. ³⁴ To Heidegger, philosophy is ultimately an ethics question of cultivating our relation to the world. Similarly, beauty in art and architecture may be an invitation to attentiveness that is neither just ready-to-hand nor present-at-hand but opens up the richness and intensity of the cultural and natural world. Aesthetic sustainable architecture invites an attentive presence that is about seeing things more clearly, more intensely and with duration.

Designs from a world to come

In 1919, Europe had just experienced the end of the first large catastrophe in the 20th century. The question was what should be done. Walter Gropius suggested that »Architects, painters and sculptors must learn a new way of seeing and understanding the composite character of the building, both as a totality and in terms of its parts«. ³⁵ In 2019, the world is confronted with a new crisis. The world may be radically changed in just a few years if we do not act now. The question is, if architecture is part of the problem, may architecture be part of the solution? We inhabit the world consuming products and exploiting resources at a constantly accelerating speed. Architects contribute to human alienation by using bricks only for decoration. Tectonic articulation is blurred as structural elements are veiled under characterless gypsum

31 Heidegger: *Being and Time*, 174.

32 Gadamer: *Truth and Method*, 290.

33 Ibid, 375.

34 Heidegger: »Building Dwelling Thinking«, 247.

35 Gropius, Walter: Manifesto of the Staatliches Bauhaus [online], <http://bauhausmanifesto.com/> [01.03.2019].

boards. Buildings have become abstract images with no meaningful connection to a place. The intimate interdependence of matter, gesture and place is broken, and the result is that we no longer understand how to dwell. If it is true that the problem is the disinterested unawareness that characterises our everyday activity and the cold, scientific gaze that reduces humans and environments to objects, perhaps beauty in architecture can be part of the answer. Maybe the invitation to attentive presence that is about seeing things more clearly, more intensely and with duration may help reduce the consumption of resources and exploitation of Earth.

Again we ›must learn a new way of seeing and understanding the composite character of the building‹. To human beings, it is about discovering attentive presence as alternative to careless consumption. To architecture, it is about making invitations to attentiveness. To the architect, it is about creating things characterised by clarity, complexity and integrity. It is about reclaiming beauty in architecture as an invitation to open up to the moment and to take good care of Earth, here, now – and in a world to come.

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