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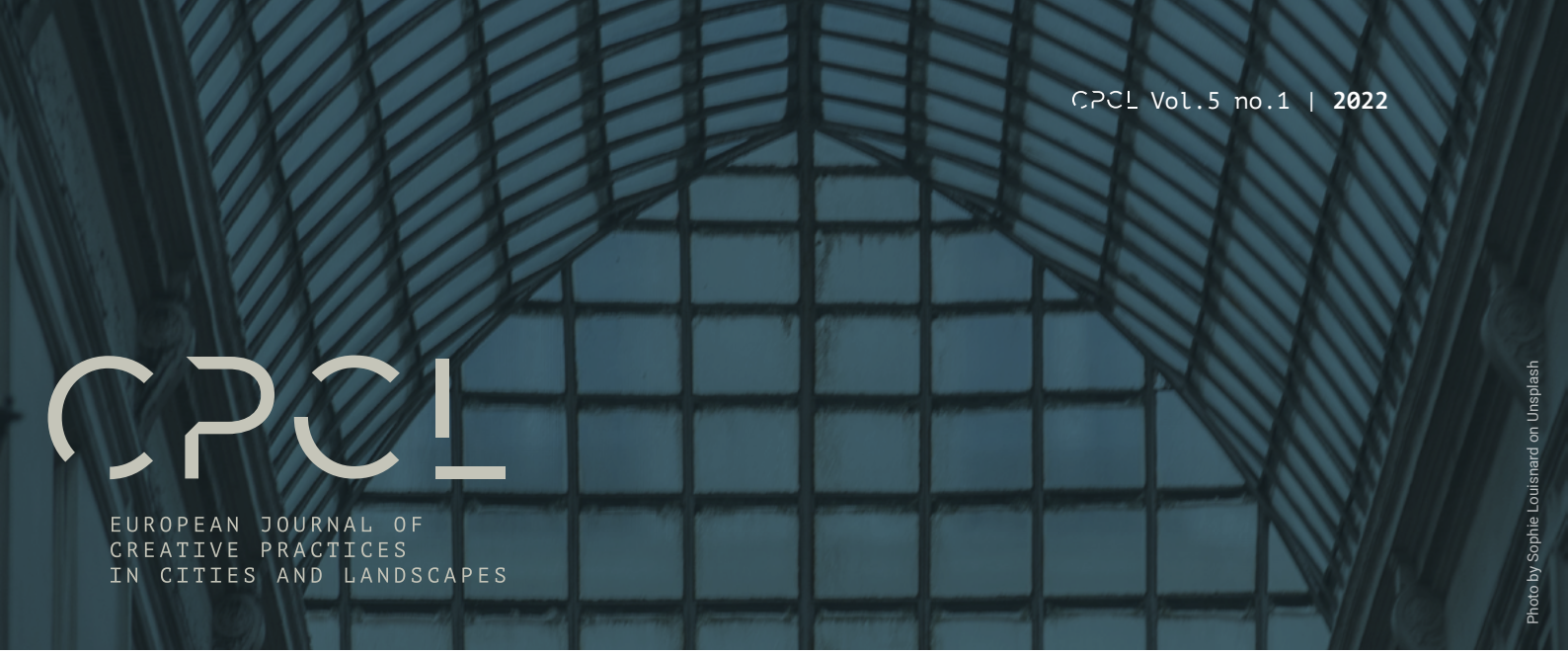

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MAIN SECTION

The Anthropocene and the Historical Index of Architecture

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ABSTRACT

In the world of science, the term Anthropocene is widely recognized as the term used to describe the current epoch in the Earth's geological time scale in which human activities are affecting the Earth system on a scale far beyond natural, geological forces. And architecture is at the center of it. For, on the one hand, human development and architecture are closely linked, for, on the other hand, it is becoming increasingly clear today that architecture has been a major project for reshaping the Earth from the very beginning. Along with devices, tools and machines, architecture is the cultural technique with which the "deficient human being", in order to compensate for his lack of natural abilities, must intervene in nature with the aim of creating an environment that meets his changing and unchanging needs.

Today, however, man's success story seems to turn into a disaster story, the "architecture of good intentions" seems to turn against man, even though he originally had the best of intentions when he followed the biblical mandate to subdue the earth with his devices, tools, machines, and architecture.

From an anthropological perspective, therefore, a different definition of the Anthropocene is emerging. The Anthropocene is the age in which the dialectic between man's well-intentioned intentions and the destructive consequences for the Earth system clearly emerges. What becomes visible is that the relationship between architecture and the environment, or between humans and the Earth system, is inherently fractured and contradictory, and that this contradiction is constitutive of human existence. It follows that the Anthropocene requires a critical questioning of the dialectic of human and system earth inherent in culture.

KEYWORDS
Architecture theory, Architecture philosophy, Semiotics

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The term Anthropocene denotes the current epoch in the Earth's geological timescale. It acknowledges that in the last 250 years, with industrialization, the development of science and technology, population growth, globalization and the Internet, human activity has impacted the Earth system by an order of magnitude far in excess of natural, geological forces.

A geoscientific definition like this is unsatisfactory, however, because it reduces the complexity of the phenomena involved to scientific data and narrows the approaches to solutions to an instrumental rationale. As it happens, in the Anthropocene the relationship between humans and the Earth system is fraught far more profoundly than that. When it comes to the philosophical, aesthetic, historical and socio-cultural dimensions, the *aesthetics of the Anthropocene* will have to delve deeper into the anthropological underpinnings.

With the position of humans in and vis-a-vis the world changing in the Anthropocene, literally the "Age of Man", architecture for its part is also attracting new attention. For, on the one hand, human development and that of architecture are closely linked; on the other hand, it is becoming increasingly clear today that architecture from the outset was a grand project for transforming the Earth system. Along with devices, tools and machines, architecture constitutes the cultural technique with which humans, those "deficient beings",[1] compensate for their inadequate inborn facilities. It compels them to intervene in nature with the aim of creating an environment appropriate to their changing and unchanging needs – one that is different from nature, and that is the only one worth living in.

Today, however, in the Anthropocene, the human success story appears to be turning into a tale of disaster. Culture reveals itself as being in a "metacrisis".[2] The works of man – the "architecture of good intentions"[3] – seemingly now turn on him, despite the best of intentions originally in hewing to the biblical mandate to subdue the earth with his devices, tools, machines and, ultimately, architecture.

In anthropological terms, therefore, a different definition of the Anthropocene is emerging. It reframes it as an age in which is revealed the dialectic between man's well-intentioned labors and their destructive consequences for the Earth system. In the process, it is becoming clear that the relationship between architecture and the environment or between man and the Earth system is inherently contradictory, and that this contradiction is constitutive of human existence. It follows that the Anthropocene occasions a critical reexamination of culture's innate logic.

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1 Arnold Gehlen, Man, *His Nature and Place in the World* (New York: Columbia University Press, 1988), 27.

2 Eva Horn and Hannes Bergthaller, *The Anthropocene: Key Issues for the Humanities* (New York; London: Routledge, 2019), 22, https://doi.org/10.4324/9780429439735.

3 Colin Rowe, *The Architecture of Good Intentions: Towards a Possible Retrospect* (London: Academy Editions, 1994).

The thesis here is that only in the Anthropocene, with the prying open of the inner contradiction of the anthropological fundaments, does modern architecture come into its own. It is in architecture that the inherent contradiction of the Anthropocene becomes culturally productive. With the sustainability debates and the resulting changes in architecture, modernism reclaims what must be called, with Christine Blättler, the "historical signature"[4] or, to quote Walter Benjamin, the "historical index."[5] It seems as if it took the acute conflict between mankind and the Earth system for the demand of *don't demolish but rebuild and continue to build* to restore to architecture the twin qualities that hitherto had been denied it: history and memory.

Following Jürgen Habermas, we might call it the fulfillment of "the unfinished project of modernity,"[6] which, however – how could it be otherwise? – can only manifest itself in the completion of its dialectical conception. Three notions from philosophical anthropology lay the foundation for this inquiry:

1. Eccentricity and the reassessment of the humanistic foundations of architecture, 2. The resistance of things and the resurgent obstinacy of things, and 3. The historical index and the recovery of architecture's and the city's memory.

Eccentricity

Much uncertainty exists today about the place of humans in the world. We no longer talk about man's alienation from himself and from the world, as was common in the early modern era. Instead, the Anthropocene is directly linked to the overcoming of humanism, a tendency referred to as post-humanism. It says that humans have lost their special position vis-à-vis animals, things and nature, that they are no longer at the center of the world as they were during the 500 years since humanism emerged during the Renaissance – or at least that they must now share this center with other things.

However, it is a misconception to limit humanism to merely having put man at the center of the world – in order to postulate his expulsion from the center today and proclaim a post-humanist age. The corrective to this flawed concept is realizing that the great theme of humanism instead was precisely the dialectical tension between man and the world, which we increasingly acknowledge today in the Anthropocene as a constitutive

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4 Christine Blättler, *Benjamins Phantasmagorie: Wahrnehmung am Leitfaden der Technik* (Berlin: Dejavu, 2021), 7.

5 Walter Benjamin, *The Arcades Project*, trans. Howard Eiland and Kevin MacLaughlin (Cambridge, Mass: Harvard University Press, 2002), 462.

6 Jürgen Habermas, 'Modernity: An Unfinished Project', in *Habermas and the Unfinished Project of Modernity: Critical Essays on the Philosophical Discourse of Modernity*, ed. Maurizio Passerin D'Entreves and Seyla Benhabib (Cambridge, Mass: Polity Press, 1996), 38–55.

element of human existence. In philosophical anthropology, this is what the terms "eccentric positionality"[7] or "eccentricity"[8] of man stand for.

The fundamental conception of humanism becomes particularly visible in comparing it to the classical worldview, from which humanism sought to distance itself in the 15th century by reconceptualizing the arts, philosophy, and architecture. An important point of reference here is Marcus Vitruvius Pollio (80-17 BCE - 15 CE), better known simply as Vitruvius. His *Ten Books on Architecture* (*De architectura*) is the only work on architectural theory surviving from antiquity. It occupied a key position not only in the reconceptualization of architecture in the early Renaissance, but also in the formation of humanism. Humanism was always a vitruvianism impossible to separate from the development of architecture.

The eponymous figure of the Vitruvian Man as described by Vitruvius greatly influenced the development of the humanistic worldview, far beyond architecture: "For if a man be placed flat on his back, with his hands and feet extended, and a pair of compasses centred at his navel, the fingers and toes of his two hands and feet will touch the circumference of a circle described therefrom. And just as the human body yields a circular outline, so too a square figure may be found from it."[9] In Vitruvius' worldview, then, the centers of the circle and square and the navel, itself regarded as the center of the human body, merge into a single point. The reverence in which Vitruvius was held is evident in Cesare Cesariano's (1475-1543) version of the figure, for which he followed Vitruvius' description verbatim. The three elements are pinned together as if with a needle. As described by Vitruvius, in Cesariano's illustration the supposed center of man, the navel, also coincides with the centers of the circle and the square.

Vitruvian Man, however, falls far short of reflecting the humanist idea of the human being. The figure only describes the mechanistic world order of antiquity, which humanism, based on Christianity and freely inspired by and adapted from Vitruvius, was trying to move beyond. In Vitruvius' words, the principle of the machine was taught to humans by "the revolution of the firmament",[10] that is, machines imitated the cosmic order. Thus, conversely, by using geometrical methods, i.e. "by means of this, through architectural principles and the employment of the compasses, we find out the operation of the sun in the universe".[11]

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7 Helmuth Plessner, *Mit anderen Augen: Aspekte einer philosophischen Anthropologie* (Ditzingen: Reclam, 2017), 9.

8 *Ibid.*, 10.

9 Vitruvius, *The Ten Books on Architecture*, trans. Morris Hicky Morgan, vol. 3.1, (Cambridge Mass: Harvard University Press, 1914), 73.

10 Vitruvius, *The Ten Books on Architecture*, trans. Morris Hicky Morgan, vol. 10.1, (Cambridge Mass: Harvard University Press, 1914), 284.

11 Vitruvius, *The Ten Books on Architecture*, trans. Morris Hicky Morgan, vol. 9.1, (Cambridge Mass: Harvard University Press, 1914), 257.

Since they reflected the world order, buildings and machines by mirroring the mechanistic cosmic order shared the same status.

It remains then that Vitruvian Man as originally conceived does not describe the humanist ideal. For that, we must turn to Leonardo da Vinci. His famous rendition of the Vitruvian Man deviates from the original in what may appear to be a minor detail: His circle, square and man no longer share the same center – of which there are now two. It is a crucial difference. Because here, unlike in antiquity, emerges the humanistic understanding of the relationship between man and world as characterized by decentering or eccentricity. This means, paraphrasing Helmuth Plessner's formulation, that "man is placed not only in his environment, but also against it. He lives in dynamic harmony both with his environment and also in opposition back to it, the living thing."[12] Following Plessner, we can speak of eccentricity as the *conditio humana*.

As we see with Leonardo, the humanists appropriated the writings handed down from antiquity and along with them the image of the Vitruvian Man in keeping with their own time and to their measure, i.e., on a Christian-humanistic basis. Man is not locked into a world mechanism but is part of the creation story as one of evolution. In this sense, it is instructive that the great Renaissance humanist Giovanni Pico della Mirandola (1463-96) has God say to Adam in *De hominis dignitate* (On the Dignity of Man): "Neither as a celestial nor as an earthly creature have I made you, and neither mortal nor immortal have I made you, so that you may, like a molder and maker of yourself, as you see fit and by your own power, form yourself into the shape which you prefer. You can descend to the level of animal, you can be reborn by your own will and rise to the divine."[13]

It is man's eccentric position in relation to the world that makes the dynamic of human development possible. Thus, especially today, in the face of human-induced global environmental problems, man's position relative to the world is changing. From the kinship of humanism and modern architecture – both emerging symbiotically in the 15th century based on the *Ten Books on Architecture* – it follows that, in turn, the reconceptualizing of humanism is intimately linked to that of architecture and the realignment of the relationship between architecture and the environment.

Resistance of things

Man experiences the world as outside himself, as eccentric. It follows that through architecture he not only creates a suitable environment for himself, but that this environment comprises things and artifacts that confront him, resist him, and by no means simply bend to his will.

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12 Plessner, *Mit anderen Augen*, 9.

13 Giovanni Pico della Mirandola, *De hominis dignitate: Über die Würde des Menschen* (Ditzingen: Reclam, 2009), 9.

Philosophical anthropology deals with the resistance of things, with which the world, in Hannah Arendt's words, "as objective-material object resists man and confronts him".[14] Bruno Latour speaks of the active "intractability"[15] through which things become, as it were, actors that oppose man. And it is precisely the manmade artifacts that often, as Latour writes, scandalously defy human mastery as "obstacles, impediments".[16]

The resistance of things as a basic anthropological condition dictates man's relationship with architecture. For example, a simple partition or wall, this most basic of architectural elements, first resists a man by blocking his path, but with an opening, a door, subsequently letting him pass through it. Due to the wall's resistance, cutting a door in it turns it from obstacle into a spatial and social element. Only thanks to the door is an in-front separated from an in-back, an exterior from an interior, a private from a public space.

With Émile Durkheim, we can speak of the wall as a social fact as something that cannot simply be circumvented, such as the wall or architecture in general, which imposes itself on everyone, "whether he wishes it or not."[17] It acts as an "external constraint"[18] but which often is not consciously experienced in everyday life. For, whoever willingly and gladly adapts to architecture will feel little or nothing of its compelling character. „Undoubtedly when I conform to [architecture] of my own free will, this coercion is not felt or felt hardly at all."[19] This is a daily occurrence. It is in line with our everyday experience that walls, corridors or stairs make one thing possible by making something else impossible.

Arnold Gehlen went one step further. He saw in the "resistance of things"[20] not only a social fact, but the necessary impetus for raising human consciousness. Gehlen held that the resistance of things triggers man's reflection on his circumstances and on what conditions them. Here he highlighted the role of language as "a sort of »twilight world« (Zwischenwelt) between consciousness and the real world, linking but also separating the two."[21] Language approaches things through words and concepts, but things also resists them. The concepts – also because of their different materiality – never become absorbed in the thing; they cannot align with it. "To the extent that a word intends to embody a thing, it is thrown back, reflected, upon itself."[22]

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14 Hannah Arendt, *Vita activa oder Vom tätigen Leben* (München: Piper, 2002), 16.

15 Bruno Latour, *Das Parlament der Dinge: für eine politische Ökologie*, trans. Gustav Roßler (Frankfurt am Main: Suhrkamp, 2010), 115.

16 Ibid.

17 Émile Durkheim, *The Rules of Sociological Method* (New York: Free Press, 1938), 51.

18 Ibid., 59.

19 Ibid., 51.

20 Gehlen, *Man, His Nature and Place in the World*, 238.

21 Ibid., 239.

22 Ibid.

The word-thought (Wortgedanke) encounters „resistance from the thing, it is reflected back upon itself."[23]

Thus, as man encounters resistance from things, both materially and linguistically, he becomes aware of himself. From an anthropological point of view, this succinctly and quite fundamentally denotes the function of architecture for man. Through the resistance of things in architecture, he becomes conscious of the self; he recognizes himself in architecture, which he experiences eccentrically. However, it is not because architecture holds up a mirror image to him but because it resists him. Therefore, as artifact, on the one hand, architecture not only serves us – for instance, by protecting us from inclement weather – but, on the other hand, in a no less elementary way, it furnishes a medium through which we also gain self-awareness.

Beyond the sociological and theory-of-consciousness levels, resistance of things can also be said to have a material-aesthetic level. It involves the obstinacy of the material, for example, of stone, steel, or wood. Material is not infinitely malleable; it always offers resistance. In this way, it contributes its properties – potentials and resistances – to architecture.

Here is also where the problem of modernist architecture intrudes: Modernism tends to neutralize or even destroy the obstinacy of the material. This was Gottfried Semper's criticism of modernism as it appeared to him around the middle of the 19th century. He was convinced that the material's obstinacy was an essential part of the process of architecture. But modern machines, he wrote, made everything so easy, "the hardest porphyry and granite cuts like chalk, polishes like wax, ivory is softened and pressed into molds, rubber and gutta-percha [latex, author's note] are vulcanized and worked into deceptive imitations of carvings in wood, metal and stone."[24] We might augment Semper's reflections by positing that architecture only emerges from the dialectical tension between the will of the material and the will of the architect. Semper wanted the opposite: he wanted to engage with the machine's material resistance but he turned against the machine. The machine negates the obstinacy of the material and therefore inhibits architecture.

It is a key element of Semper's philosophy of technology that by breaking down the material's resistance, modernity risked abandoning the anthropological preconditions of human existence, namely eccentricity, and along with it quasi the humanistic foundations of architecture. The break with the humanistic fundaments resides conceptually and historically in the 19th century, the dawn of the machine age.

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23 Ibid.

24 Gottfried Semper, *'Wissenschaft, Industrie und Kunst', in Wissenschaft, Industrie und Kunst und andere Schriften über Architektur, Kunsthandwerk und Kunstunterricht*, ed. Hans Maria Wingler, Bauhausbücher (Mainz und Berlin: Kupferberg, 1966), 32.

Historical Index

Today, however, with the rising CO^2 buildup in the earth's atmosphere, with global warming, or with the resource crisis, the environmental problem leads precisely in the opposite direction – namely increased and intensified eccentricity and resistance of things. We can see how the resistance of things returns at a higher level. Is it not the case that the resource crisis forces man to react? Nor can we simply sidestep global warming and its consequences. The terms environment and environmental protection, as they emerged in the 19th century, do not adequately reflect the situation. It is becoming clear that in the Anthropocene we must work from a changed conception of the resistance and the obstinacy of things.

With that, the way is open for the historical index, the third concept in our inquiry, and with it the topic of the recovery of memory and remembrance in architecture and the city. In 1991, Bruno Latour in his discussion of postmodernism had still declared "We have never been modern."[25] He made this remark in the context of the debates about postmodernism and with it polemically flipped its argumentation on its head: Postmodernism was based on the false premise that modernity had come to an end, when in fact the latter had not yet really begun.

Latour's point deserves to be taken seriously. Following him, I will postulate that modernity seems to come into its own only under current Anthropocene conditions; that, with the environmental problem, it gains something it had always been deprived of, but for which, according to Walter Benjamin, it was always searching for in its innovative drive: namely the "historical index" at a given point in time. While Benjamin, however, spoke of the historical index as a dialectical image and correlation between the symbolic world of mythology and the world of modern technology, in architecture, so the argument goes, the historical index manifests itself in the dialectic of "phenomenon and the logic of signs."[26] The historical index here is a physical trace that inscribes a deed, an action, or an act in the material.

This is precisely what seems to be happening today under the pressure of change brought on by the Anthropocene. Central to the phenomenon is the return of the resistance of things, but on a higher plane. Today, things or objects are no longer to be apprehended only as physical walls, stairs, doors, or doorknobs. We need to expand the concept of thing to include "hyperobjects".[27] The category includes things that can only be measured with instruments and software algorithms, such as the hole in the ozone

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25 Bruno Latour, *We Have Never Been Modern* (Cambridge, Mass: Harvard University Press, 1991).

26 Charles S. Peirce, *Phänomen und Logik der Zeichen*, ed. Helmut Pape (Frankfurt am Main: Suhrkamp, 1998).

27 Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis: University of Minneapolis Press, 2013), 1.

layer, the CO^2 buildup in the atmosphere, the concentration of particulate matter in the air or the radioactivity of water, but it also encompasses the planet's dwindling resources, the destruction of forests, the acidification of soils, etc.

It is these objects which today offer resistance to man. They confront him, demand that he react and adapt his actions to them, or, as Latour argues, quasi submit to them. A different resistance issues from them than from conventional material things such as a door or a table. Due to the sheer scale of the problem – think global warming or rising oceans – the tension between man and the Earth system increases, the degree of eccentricity rises. On the flip side, there is also a newfound appreciation of things, objects, and materials. Thus, today the existing building stock is undergoing a reappraisal, especially the inventory of modern architecture. Where demolition and new construction used to be the predominant stance, it is replaced today by concern for the existing building stock and the techniques of transformation.

In building anew on the old, the requirement for permanence now shines through, as described by Aldo Rossi in his work *The Architecture of the City*[28] over a half-century ago. For Rossi, permanence signified the immediate material, conceptual, and social continuity of architectural objects. He had demonstrated this in exemplary fashion with the Palazzo Ragione in Padua. Constructed first in the 14th century as a specific building type, it initially contained only the memory of the actual building process. As such, it merely documented its making in both material and conceptual terms. Beyond that, however, it was devoid of history, without major historical references, that is, it lacked a historical index. However, in the course of centuries, it was continually rebuilt and further developed, and thus imbued with memory and history. The passage of time then left traces and indices of use in the Palazzo Ragione.

In the face of the resistance of things again asserting itself in the Anthropocene and under the pressure of environmental problems, we can observe that today the high-rises, office buildings, and apartment blocks of the last decades are no longer being demolished but are converted and, like Palazzo Ragione, have their potential restored to become a medium of cultural memory. It is due to the elevated level of the resistance of things, to the ecological pressure exerted by the hyperobjects, that modern architecture now can also become the bearer of history and, by means of the historical index, the medium of the identity of man, architecture, and the Earth system.

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28 Aldo Rossi, *The Architecture of the City* (Cambridge, Mass: MIT Press, 1984).

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