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Volume 15, 2023

Edited by Vítor Moura and Connell Vaughan



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## *Notes on Aesthetics in Architecture*

Pedro Borges de Araújo<sup>23</sup>

*Universidade do Porto*

ABSTRACT. This article is written from the viewpoint of an architect, which I am. My analysis of the role of aesthetic judgments in what architects do and how they do it considers and discusses the constraints imposed by the so-called Principle of Acquaintance within the framework of the Architectural Project. The specific work of a professional architect encompasses all the resources necessary to solve architectural problems, effectively defining both what they do and how they do it. This ‘set of all resources’ fulfils the condition of ‘what the architect does’ but also allows for an examination of ‘how they do it’ in each case. I will argue that aesthetic judgments operate on this set of resources and involve all participants in the architectural design process. The functions of imagination and understanding within this process, as described by Kant in 1790 as ‘the harmonious free play of the cognitive faculties,’ are considered in a contemporary context. The expected conclusions regarding aesthetic judgments within the architectural design process should enable us to understand the role of aesthetics in architecture, specifically in terms of what architects do and how they carry out their work.

### **1. Foreword**

This short essay, prepared for the proceedings of the ESA 2023 Conference, served as the foundation for our abstract submission and as a complementary perspective to our synoptic presentation scheduled during the conference. Its primary purpose is to contribute to a thematic synthesis forming the basis of the discussion panel, which focuses on the role of aesthetic judgments within the specific realm of ‘architectural work.’ This presents a significant challenge in light of the evolving *Principle of Acquaintance* throughout the history of philosophy. With these philosophical lineages in mind, this essay aims to present its structure

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with minimal exposition for broader acceptance.

The choice of title structure depended on the specific context and the intended emphasis for a panel discussion on *architecture* and *aesthetics*. ‘Aesthetics in Architecture’ serves as a contemporary and precise choice when addressing the role of aesthetics within the field of architectural practice. The use of the preposition ‘in’—Aesthetic Judgment *in* Architecture/Aesthetics *in* Architecture—is intentional: it confines its use to a specific context, that of the work of architects. Phrases like ‘Aesthetic Judgment in Architecture’ or ‘Aesthetics in Architecture’ restrict my focus to the framework of architectural work. Considering this perspective, it can only limit itself to *notes mapping the territory* which defines the research. Perhaps even *annotations on notes* that reference relevant domains, emphasizing what an architect does and what makes them an architect.

General topics that condition the structure of the essay:

1. The question of *aesthetics in architecture* extends beyond *artistic* judgment.
2. When critically analyzing aesthetic considerations within the realm of architecture, we are exclusively focused on *aesthetic judgments* and their role *in the architectural production process*, as carried out by architects.
3. The work of architects, encompassing what architects do and how they do it—*architecture* itself—can be distilled, in this hypothesis, to what we refer to as the *Architectural Project*. This concept encompasses all material and immaterial aspects recognized as necessary and sufficient for the fulfilment of their professional obligations.
4. As an architect and philosopher, my challenge was to explore *the Acquaintance Principle* within the framework of architecture. This essay intends to delve into this challenge and shed light on how it can be achieved.

I will unfold it into two parts: [1] *Aesthetic Judgment and the Principle of Acquaintance*, and [2] *The Architectural Project: what architects do and how they do it*, along with any relevant subtopics. Additionally, it will include a *Foreword*, sections for *Bridging* the content of the two parts, plus *Conclusions* and *References*.

Who is who by what they do and how they do it in the complex production of the built environment calls us to *analyze the processes* and their *action dynamics*.

Finally, a reference to the film *Two Hands to Philosophize*,<sup>24</sup> which we presented during the Aesthetics of Architecture panel at the Budapest ESA Conference 2023. The film is not only complementary but also an integral part of the argumentation discussed in this essay.

The film we created has two versions<sup>25</sup>. The first, the original, premiered at the University of Patras and is approximately 20 minutes long. The shorter version presented in Budapest is 10 minutes. What was ‘cut’ in the Budapest short-version were the frames that demonstrated how to expand the context beyond the ‘specific work of architects’ and to theorize or hypothesize about the connection between ‘motility’ and human-animal capabilities. The shared excerpts relate to the themes to be discussed, specifically focusing on the role of aesthetic judgments in the work of architects.<sup>26</sup>



**Figure 1.** Introduction and logical-linguistic presentation. Still from *Two Hands to Philosophize* (2023).

<sup>24</sup> At a recent symposium at the University of Patras, Greece, centred on the theme ‘Architecture in the Age of Digital Media,’ held from May 25 to May 27, we presented the film *Two Hands to Philosophize*. Then and now, the respective essays serve as counterparts, engaging in counterpoint with the presentations. The approach envisioned for addressing the subject, much like the evolution of any project, went through various stages and modes of development.

<sup>25</sup> For those who want to see the films in full, they can be accessed on the MLAG website <https://mlag.up.pt/> or requested to [af.autofocusproject@gmail.com](mailto:af.autofocusproject@gmail.com).

<sup>26</sup> For me, there are other connections between the two presentations, which the film or films mediated, and Sofia Miguens, during the ESA panel, immediately grasped. Since I am the author of both presentation scripts, I can confidently state this. Perhaps I can put these connections into perspective by envisioning them as two parts of the same whole.





**Figure 2.** Introductory presentation of the film: showcasing the hands of the architect-authors as analogue instruments. *Emphasis on the art of hand drawing.* Still from *Two Hands to Philosophize* (2023).

The *inexpressible*<sup>27</sup>, conveyed by images, which is visually communicated information, aims to highlight one of the research directions that the panel intended to explore: the correlation between *action* and *thought* in the realm of architects' work. This involves the presumed and verified interaction between the *mind*, *language*, and *action*.

For example, possibly anticipating a comment on the characterization of the possibility of knowledge: the core of human-animal motor skills or capabilities—*motility*—lies beyond the stimulus-response model that predominated in the first half of the 20th century. Whether these motor skills are global or specific, they underpin the faculties exhibited by the human animal.

In a more specific manner, our notes on the subject—*Notes on Aesthetics in Architecture*—aim to confine the topic within the specific domain of architects' work, a segmented section cut from the process that characterizes their professional work.

<sup>27</sup> The *inexpressible*, more precisely, *what cannot be said*, is often referred to as 'the unspeakable', conveys the idea that something is *beyond the capacity of words to express*.

## 2. Aesthetic Judgment and the Principle of Acquaintance

There will be no domain within what we currently designate as philosophical discourse – particularly concerning the nature of the human-animal – that does not intersect with our matrix, which is rooted in Greco-Latin culture. Aristotle and Plato could serve as reference points, even preceding the coining of the term ‘Aesthetics’.<sup>28</sup>

After providing these historical references, I will now shift our focus to the more formal domain of post-eighteenth-century Aesthetics, a field originally initiated by Alexander Gottlieb Baumgarten (1714-1762) who co-opted the term and shaped the discipline. In particular, I will delve into the lineage that started with Immanuel Kant (1724-1804), which operates independently from Baumgarten’s Aesthetics. Therefore, our point of departure is Kantian Aesthetics.

What should be considered as ‘aesthetic judgments,’ and what role do they play in the architectural design process?

Following the Kantian proposal presented in the *Critique of Judgment*<sup>29</sup>, Bertrand Russell’s analysis in *The Problems of Philosophy*, and the coining of the term ‘Acquaintance Principle’ by Richard Wollheim, aesthetic judgments are attributed to *experience*. The common feature among the three proposals is *experience*, considering this ‘experience’ in a brief, simple, and common way, as *the process of gaining knowledge or skill through actions, observations, or sensory perceptions*.

The analysis of the role of *aesthetic judgments in what architects do and how they do it* considers and discusses the potential restrictions imposed by the Principle of Acquaintance. I will argue that, within the scope of the *Architectural Project*, it is necessary to consider the *imagination* and *understanding* of all participants, as this involves the summoning of aesthetic judgments. The specific work of a professional architect is presumed to encompass the entirety of resources required to solve architectural problems. I will assert that aesthetic judgments operate on this set of resources and involve all participants in the architectural design process. The functions of *imagination* and *understanding* within this process are assumed to be in line

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<sup>28</sup> The word ‘aesthetic’ from the Greek *aiesthesis*, having to do with *the senses*.

<sup>29</sup> *Kritik der Urteilskraft*, or *The Critique of the Faculty of Judgment* (1790), often translated as *Critique of Judgment*, is the third of Kant’s three published *Critiques*. It introduces and discusses the concept of ‘aesthetic judgments’.

with contemporary standards. The expected conclusions regarding *aesthetic judgments* within the architectural design process should help us comprehend the role of aesthetics in architecture, specifically in terms of what architects do and how they carry out their work.

*Aesthetic judgments* correspond to the continuous process of decision-making in the *course of action*<sup>30</sup>. That is, the intrapersonal, interpersonal, and other cognitive resources we use, whether consciously or not, to determine the course of processes.

### 3. Philosophical lineage

Concerning *aesthetic judgments*, our arguments will follow the lineage of Immanuel Kant's *Critique of the Faculty of Judgment* (1790). We will also reference the treatment of epistemology—involving *knowledge by acquaintance* and *knowledge by description*—as presented by Bertrand Russell in *The Problems of Philosophy* (1912). Additionally, we will discuss the development of the *Acquaintance Principle* within the context of Richard Wollheim's essay on Aesthetics, *Art and Its Objects* (1968).

Throughout this discussion, we will assess the present state of the field of Aesthetics, referencing and acknowledging developments put forth by contemporary authors in various domains.

#### 3.1 Notes on what Kant wrote<sup>31</sup>

*A singular empirical judgment*, e.g., the judgment made by someone who perceives a mobile drop of water in a rock crystal, rightly demands that anyone else must concur with its finding, because the judgment was made *in accordance with the universal conditions of the determinative power of judgment under the laws of a possible experience in general*. In the same way, someone who feels pleasure in the mere reflection on the form of an object, without any concern about a concept, rightly lays claim to everyone's assent, even though this judgment is empirical and a singular judgment. For the basis of this pleasure is found in the *universal*, though *subjective*, condition of reflective judgments, namely, the purposive harmony of an object (whether a product of nature or of art) with the mutual relation of the *cognitive powers (imagination and understanding)* that are *required for*

<sup>30</sup> *Course of action* that we also call, especially in our domain, *process*.

<sup>31</sup> A relevant source for reading Kant's *Critiques*, especially the third Critique, is the one that makes up the 'General Editors' Preface' and the 'Editor's Introduction' to the *Critique of the Power of Judgment*, edited by Paul Guyer, and translated by Paul Guyer and Eric Mathews (2000).

*every empirical cognition.* Hence the pleasure in a judgment of taste is indeed dependent on an empirical presentation and cannot be connected *a priori* with any concept (we cannot determine *a priori* what object will or will not conform to taste; *we must try it out*); but the pleasure is still the basis determining this judgment, solely because *we are aware that it rests merely on reflection and the universal though only subjective conditions of the harmony of that reflection with the cognition of objects generally, the harmony for which the form of the object is purposive.* (Kant, 1790, p.31)<sup>32</sup>

Extending beyond the map of cognitive capabilities mentioned in the *Critique of the Faculty of Judgment* would have been a significant demand, considering the state of the field during Kant's time. *Cognitive sciences* and *neuroscience* were still in their infancy. Kant wrote as a *natural philosopher*, closely attuned to the broadest sense of reality that could be considered at that time.

However, when we consider these topics and recognize that Kant is not the founder of modern aesthetics as a discipline, it is in the *Critique of the Faculty of Judgment* that we can anchor discussions on judgments of taste, the consideration of beauty within them, and the hypothetical dissociation that such judgments present when compared to moral and ethical judgments. The latter are formally tied to a logical and *a priori* structure, ideally free from sensuality.

Setting aside psychology, we can ask whether these judgments should be integrated into the structure of human beings as they face the reality of which they are a part. This goes beyond Hegel's proposal to reduce it to 'Art.' In the *Critique of Judgment*, Kant provides a more physically precise foundation for critical analysis and philosophical inquiry. While Kant's map may lack precision in detail, he recognized the territory and left information that would enable others to navigate or blaze a path.

Starting from the Kantian foundation also entails selecting specific topics from his myriad arguments that can potentially configure and justify our hypotheses, even if only to a minimal extent. To avoid being misled by interpretations beyond these boundaries, we should make our decisions, summarized in conceptual terms. After choosing a representative excerpt, we can proceed with conciseness, following Kant's words.

What needs to be emphasized in Kant's meticulous analysis is his outright rejection of

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<sup>32</sup> Kant, Immanuel, *Critique of Judgment* (1790), VII, On the Aesthetic Presentation of the Purposiveness of Nature. Translated by Werner S. Pluhar (1987) [my emphasis (bold, italics)]

admitting two types of judgments while maintaining the condition of *universality* in the *subjectivity* of judgments, as they are determined by the unity of the cognitive powers of *imagination* and *understanding*. In conclusion, this hypothesis grants to the evaluation of particular objects by each subject the possibility of *a priori* conditions for judgment. This expanded conception of the *capacity and inevitability of judgment*, along with our *representation of reality*, endows Kant with the scientific and philosophical originality of the *Critique*.

The comprehensiveness of what is intended to be universal and the subjectivity exhibited by each judge will be ensured by *the nature of the cognitive powers* that determine the agent and their agency.

To look further into the structure and development of Kant's thought and text – again, how to approach Kant in these specific areas – we must refer to editor Paul Guyer's Introduction entitled 'Background: The Possibility of a Critique of Taste and Teleology,' in *Critique of the Power of Judgment* (2000). Significantly, within this context, we encounter an alternative title for the work, penned by Kant himself: The *Limits of Sensibility and Reason*.

Kant's text discusses types of judgments: *empirical* and *judgments of taste*. In the case of empirical judgments, they require *universal* agreement when based on objective conditions. Judgments of taste, on the other hand, relate to *subjective*, universal conditions of harmony between *imagination* and *understanding* in the perception of *an object's form*. The pleasure in a judgment of taste is rooted in the *subjective, yet universal*, harmony of *reflection with cognitive powers*. This pleasure depends on empirical experience and can't be determined *a priori* for *specific objects*, but it's the foundation of such judgments due to its reflection and universal subjective conditions.

### 3.2 Notes on what Russell wrote

It was Russell's role to propose alternative pathways and determine bifurcations. In this story, it was up to Bertrand Russell to propose the methodologically positivist critical analysis that would, in the history of epistemological thought, bifurcate the path of knowledge. On one side, a logical path would open up, and on the other, a sensual path due to sensory experience.

Starting from *The Problems of Philosophy*<sup>33</sup>, the map of reality provided a new account of alternative pathways, determining one of its bifurcations. In the horizon, or within the critical horizon, of *aesthetic judgments*, taste, and beauty, a structure, *epistemologically problematized structuring*, was added.

Russellian foundationalism requires us to embrace the path defined by our *firsthand experience*—what we supposedly know better—and contrasts it with the information that comes to us indirectly, through communication, demanding our testimony and acknowledging the potential for fallibility.

We may therefore sum up as follows what has been said concerning acquaintance with things that exist. We have acquaintance in sensation with the data of the outer senses, and in introspection with the data of what may be called the inner sense—*thoughts, feelings, desires*, etc.; we have *acquaintance* in memory with things which have been data either of the outer senses or of the inner sense. Further, it is probable, though not certain, that we have *acquaintance with Self*, as that which is *aware of things* or has *desires towards things*. (Russell, 1912, Chapter V)<sup>34</sup>

We will, therefore, involve a broad spectrum of points or contact surfaces encompassed by the ‘acquaintance’ condition: *things that exist; sensations; introspections, including ‘inner senses’ such as thoughts, feelings, desires, etc.; memory*; and, likely, *Self* (which is aware of things or has desires towards things).

What remains significant for our conceptual genealogy of the principle, and beyond the adoption of the term ‘acquaintance,’ of course, is the dichotomy concerning the *matrix of knowledge*, expressed in the terms that shape the chapter (V) dedicated to the theme: Knowledge by Acquaintance and Knowledge by Description. *Knowledge*, after all, according to Russell’s proposal.

‘Analytical realism,’ as defined by Bertrand Russell, coincides with the period [1905-1914]<sup>35</sup> of his redaction of *The Problems of Philosophy*, which places a strong emphasis on the

<sup>33</sup> Russell, Bertrand, *Problems of Philosophy* (1912)

<sup>34</sup> Russell, Bertrand (1912), *The Problems of Philosophy*, Chapter V: ‘Knowledge by Acquaintance and Knowledge by Description’ Project Gutenberg. [My emphasis, my italics].

<sup>35</sup> Russell, Bertrand (1905), “On Denoting,” *Mind* 14, pp. 479-493; (1910), “Knowledge by Acquaintance and Knowledge by Description”, *Proceedings of the Aristotelian Society*, 11, pp. 108-128.; (1997) [1912], *The Problems of Philosophy*, ed. John Perry, Oxford: Oxford University Press; (1993) [1914], *Our Knowledge of the External World*, New York: Routledge.

analysis of terms in language. This conceptual framework asserts the existence of an independent reality separate from the subject's thoughts, particularly concerning non-mental entities relating to the subject's cognitive attributes. The connections are established within *the realm of language* and, in this philosophical, specifically epistemological, context, lead to the emergence of analyses suggesting *knowledge through acquaintance* and *knowledge by description*.

### 3.3 Notes on what Wollheim wrote<sup>36</sup>

In a passage from *Art and its Objects*, Richard Wollheim (1923-2003) wrote:

*Realism* acknowledges a well-entrenched principle in aesthetics, which may be called *the Acquaintance Principle*, and which insists that *judgments of aesthetic value*, unlike judgments of moral knowledge, *must be based on first-hand experience* of their objects and are not, except within very narrow limits, transmissible from one person to another. (Wollheim, 1980, p. 233)<sup>37</sup>

From the expressed viewpoint, philosophy acknowledges the *realism* that serves as the *conceptual framework* for articulating the principle.

## 4. Formulation of a Principle<sup>38</sup>

Deriving it from the previously quoted passage, one can formulate a principle succinctly:

[T]he Acquaintance Principle [...] insists that judgments of aesthetic value [...] must be based on first-hand experience of their objects and are not, except within very narrow limits, transmissible from one person to another. (Wollheim, 1980, p. 233)<sup>39</sup>

In an earlier version – *Art and its Objects* (1975) Peregrine Books (Penguin Books) (Reprinted 1978) – Wollheim had written:

<sup>36</sup> Richard Wollheim's Aesthetics. *Art and Its Objects: an introduction to aesthetics* (1968).

<sup>37</sup> Wollheim, R. *Art and its Objects* (1980) [my italics in the quotation]; 1<sup>st</sup> Edition by Harper & Row, 1968.

<sup>38</sup> The *Acquaintance Principle in Architecture* was the challenge and my primary focus for the 'Aesthetics of Architecture' panel at the ESA 2023 Conference.

<sup>39</sup> Wollheim, R. (1980) *Art and its Objects* [my italics]

In the preceding section I have indicated some kind of scheme of reference, or framework, within which a *work of art*<sup>40</sup> can be identified. This does not, of course, mean that any spectator, who wishes to identify something as a *work of art*, must be able to locate it at its precise point within such a framework. *It is enough that he should have an acquaintance* with that local part of the framework where the work occurs: alternatively, that he should be able to take this on trust from someone who satisfies this condition. (Wollheim, 1975, Section 61, pp. 162-163) [my italics in the quote]

I take this version as the one later reformulated as *the Acquaintance Principle*. And I emphasize that the 1980 version seems the more radical one. I also note that the first edition of the essay *Art and Its Objects: An Introduction to Aesthetics*, dates back to 1968<sup>41</sup> as written by Wollheim in the preface of the second edition of the essay *Art and Its Objects*:

This essay is an expanded version of an essay originally written for the *Harper Guide to Philosophy*, edited by Arthur Danto. For the second edition I have kept the original text, and appended six additional essays. I have made changes in and additions to the bibliography. (Wollheim, 1980)

In this way, I intend to emphasize the gestation period of the principle in its assertive and stabilized formulation—1968-1980—place it within the framework of what I call *Richard Wollheim's Aesthetics*, and, above all, position it in the era when this approach is developed.

As I endeavoured to characterize it, the *Acquaintance Principle* gained potency within the epistemological framework of the Kantian revolution, underwent a revival during the Russellian *linguistic turn* in the 1910s, and was subsequently updated during the *cognitive shift* of the 1950s, with support from Wollheim, who coined the principle and its synthetic formulation. Over more than two hundred years, it has remained both implicit and explicit, actively influencing philosophical formulations and discussions, notably serving as a cornerstone for theoretical articulation in Aesthetics.

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<sup>40</sup> I emphasize the categorization 'work of art' in contrast to the limitation I imposed on myself. While this is indeed the explicit subject of Wollheim's essay, it does not cast it beyond the broader scope of 'what architects do,' nor does it contradict my notation explicitly stated in the *Foreword* (1): *The question of aesthetics in architecture extends beyond artistic judgment*.

<sup>41</sup> Wollheim, Richard (1968), *Art and its objects: an introduction to aesthetics*. First published, New York & London: Harper & Row; Published in Pelican Books (1970); Reissued in Peregrine Books (1975)



## 5. Bridging

The bridges that connect the seemingly separate disciplinary domains we use as references are, in reality, *intersections*. Within these intersections, hypotheses derived from research converge and take shape. These hypotheses, whether they belong to the realms of *architecture*, *philosophy*, or the *sciences*, formally structure investigations that revolve around the concepts of *action*, the *mind*, and, perhaps, in a manner that is somewhat less obvious, *language*. This is because, within these intersections, *language* itself serves as a *form of action*, working alongside selected communication models to facilitate the crossing of domains.<sup>42</sup> About halfway across the bridge, with little hesitation, I will attempt to connect these domains.

## 6. Complex Systems<sup>43</sup>, Architectural Design Process, and Architectural Project

The work of architects, regardless of the time and place, falls within what we formally and informally refer to as ‘economy.’ In a more restrictive designation, we call it a ‘productive process.’ As such, we adopt the term, expression, ‘technological production modes’ to categorize the work of architects.

A linear view, a cause-and-effect model of the world, will always fall far short of what understanding first and knowledge later demand. Without the assumption of a complex model, we will always be limited in our conclusions. Failing to consider relevant premises only leads us to erroneous and often incorrect conclusions. The processes we subject to our critical analysis are *systems of complex processes*.

The subject of investigation and reflection in this essay is the *action*, exemplified by *what architects do*—the *Architectural Project*: what architects do and how they do it. It resides at the intersection of philosophy in general, particularly the philosophy of action, and the field of

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<sup>42</sup> *Language, words, understanding, and knowledge*. The ultimate decision regarding what to do with words always lies with each of us. Merely seeking origins or essences is insufficient, as our reliance on their usage and their repeated effectiveness or satisfaction in communication is what truly matters. In other words, words depend *on us and others*.

<sup>43</sup> Some terms/phrases can help map the domain: *Complex Systems, Complex Adaptive Systems, Multi-agency, Non-linearity, Emergence, Spontaneous Order, Feedback Adaptation loops, Feedback cycles*, for example. Perhaps the most evident, in everyday expressions, could be broadly referred to as the *Economy*, the economic system.

sciences, primarily within the subdomain of neuroscience. This is why, in addition to Kant, Russell, and Wollheim mentioned in [1] ‘*Aesthetic Judgment and the Principle of Acquaintance*,’ we also consider authors who explore these topics from a philosophical perspective, as well as those who approach them from related fields. In this broad spectrum, we include Arbib, Buzsáki, Damásio, Dissanayake, Newell, Reitman, Simon, and, specifically for our argument, for example, Vittorio Gallese.<sup>44</sup> Nevertheless, it’s important to remember that the field of architecture also generates its theoretical material.<sup>45</sup> As the relationships woven at the various intersections, we are referring to demonstrate. A guide for crossing bridges was, without a doubt, Juhani Pallasmaa.

The consistent rendering of *Urteilskraft* as "power of judgment," rather than the familiar "judgment," makes it unambiguous when Kant is talking about judgments and when he is talking about the capacity to make them. It is to be hoped that this will discourage the misconstrual of Kant’s distinction between (using Guyer and Matthews’s terms) the [End Page 594] "reflecting" and the "determining" powers of judgment as a distinction between two varieties of *judgments*.<sup>46</sup> (Rind, 2001, pp. 594-596).

The distinction between ‘judgment’ and the ‘power to judge’ is inscribed in the translation of the original German.

The complex Kantian framework has generated ripples that span authors and eras to the present day. In the genealogy we mentioned earlier—spanning from the late 18th century to the early 20th century—and for the specific question we intend to address, Bertrand Russell allows us to underscore the significance of the concept of ‘representation’ introduced by Kant. It remains a vital subject of both philosophy and the sciences to this day. Within the scope of our *analysis of action*, we must connect it in a way that we will describe as inseparable from *representation*.

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<sup>44</sup> All of them are included in our list of references. For an innovative approach to the relationship between neurosciences and philosophy, particularly the Kantian model, see, for example, Buzsáki, György (2019) *The Brain from Inside Out*.

<sup>45</sup> Specific references will include the seminars and conferences held in Helsinki since 2013 under the auspices of the Tapio Wirkkala-Rut Bryk Foundation, see *References*, the work carried out by the Academy of Neuroscience For Architecture, the ANFA-Center for Education, and our Autofocus seminars (MLAG/IF), especially since 2016, <https://mlag.up.pt/events/autofocus-seminars/>

<sup>46</sup> Rind, M. (2001), ‘Review of the book Critique of the Power of Judgment’, *Journal of the History of Philosophy*, vol. 39(4), pp. 594-596.

*Representation* as ‘reality for us’ doesn’t assume ‘another reality,’ but rather the way we perceive it, how it is possible and current for us.

*The power to judge* is an innate cognitive ‘capacity.’ The ‘faculty of judging’ is the same as the ‘faculty of thinking.’ Every mental and conscious ‘representation’ is already an evaluation, a form of judgment. And, like *thinking*, it’s a spontaneous and characteristic cognitive capacity of the human animal. Innate qualities are based on procedures and comprise an *a priori* active readiness to implement *transversal* and *universal normative rules of synthesis*, which we assert depend on our mind.

In this regard, we can once again return to Kant about our cognitive capacities and distinguish between ‘understanding’ and ‘sensitivity’ served by the faculty of ‘imagination’, conceiving it as a source, innate, and therefore as a basic ‘mechanism’ of all types of synthesis.

We can then assume that in our days the *normative rules of the mind*, as *philosophy* has always discussed them, find in *Neurosciences* a new source for their investigation and an increased result for their knowledge, and in the *decision theories* inherent to all processes an exploratory complement.

It will be from this schematic and very succinct frame of reference of the *Critique of the Power of Judgment*, a Kantian thread, that we will arrive at Bertrand Russel’s epistemological formulation synthesized here from *The Problems of Philosophy* (1912) Chapter V, Knowledge by Acquaintance and Knowledge by Description. What will be relevant for the future articulation and discussion of the *Acquaintance Principle* will be the *types of knowledge*.

A bridge with several footholds between Sciences and Philosophy, especially Biology and Neuroscience, with intersections relevant to our theme, Architecture.

## 7. The hypotheses we put forward

The foundation of the hypotheses we present is a ‘naturalistic’ perspective on the *mind*, *language*, and *action*.<sup>47</sup> This ‘naturalistic perspective’ is invoked by examining the current relationship between *philosophy* and *science*, with a focus on *cognitive sciences* and *neuroscience*.

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<sup>47</sup> On the philosophical ground: Putnam, Hilary (2016), *Naturalism, Realism and Normativity* (Edited by Mario De Caro) Cambridge MA, & London UK: Harvard University Press, 2016. [Introduction: Putnam’s Philosophy and Metaphilosophy by Mario de Caro]

The concept of ‘Nature’—a categorization or ontology—can provide a framework for revising our understanding of the ‘economy’ from an epistemological perspective. In other words, it offers a timely and compelling description of how the relational structures it seeks to uncover and critically analyse relate to our understanding and knowledge of the economy. This approach sets aside the analogies and metaphorical language often used in descriptions, viewing ‘Nature’ as akin to ‘an Economy’.

If we consider the revolutions in scientific progress and their technical counterpart over the past 150 years, we can observe their significant impact on the fields of philosophy of mind and action, as well as in the domains of cognitive sciences and neuroscience.<sup>48</sup> These, in turn, have revitalized philosophical research and debates. These issues, along with those related to the *philosophy of language*, are crucial for establishing a comprehensive and well-founded framework. With its foundations in neuroscience, *philosophy of action* forges new connections with *language* and, more broadly, with the ‘*body/brain/mind*’ problems, reshaping these relationships and their implications for enduring philosophical questions, whether they are related to ontology, epistemology, or other domains.

What we term ‘aesthetics’ or ‘aesthetic judgments’ may thus correspond to a form of ‘natural rationality’ when considering our cognitive abilities and our evolutionary history as human animals.

In terms of the developments, we observe in current literature, a substantial amount of work has been produced in various fields and at different research levels, building upon the legacies of Kant, Russell, and Wollheim. It’s worth noting, however, that the overwhelming majority of this work, particularly within the realm of ‘philosophical aesthetics,’ is situated within *the art world*. Therefore, our objective here encompasses a different domain, a distinct subject, and a complementary yet unique critical analysis.

For this specific subject, we will need to consider the vein of those who, while not forgetting the philosophers, venture down alternative paths. We acknowledge their contributions to our discourse, within the text, and in the accompanying references.

*Naturalism, Realism, and Normativity* are philosophical topics that intertwine clearly in

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<sup>48</sup> The ‘cognitive turn’, which has influenced philosophy and the sciences since the 1950s, continues to guide us in investigating the nature of the human-animal. Building on this foundational perspective, we can explore various aspects, such as the discussion of the *mind’s representational character and functions*, its *corporeality* and *operation*, and how these elements underpin the *processes of judgment, decision-making, action, and behavior*.

the overall structure of the essay, as well as in their specific themes, whether in the domains of *aesthetics*, the *mind*, *language*, or *action*.

In his time, a neo-Kantian, Jakob von Uexküll (1864-1944), managed to structure a possible answer by coining the technical term/concept of *Umwelt* to refer to the *worlds of subjective experience*.

The impressions received by the subject always consist of sense-qualities, which it then arranges and connects into unities, which we call objects. Accordingly, we have to distinguish in every object between two things: — (1) the sense-qualities, which Kant called the *material*, and (2) the arrangement imposed on them by the mind, which he called the *form* of knowledge. (Uexküll, 1926, p. XVI)<sup>49</sup>

## 8. The *Architectural Project*: what architects do and how they do it: The Architect, the Architects, and the Professional Architect

The Architect, directly designated in Greek as ἀρχιτέκτων (arkhitékton), was the sole agent who earned their *designation through their actions*. Similar agents, never directly designated as such, will include all those who have done or will do what the Greek architect did to earn such a designation. This story of ‘being an architect’ from the beginning of time to our days, especially in our Greco-Latin culture, continues to evolve and adapt.

The *professional architect* is a specific case that becomes significant only in societies, times, and places where this pursuit has primarily aligned itself with the *economy*.

What we will understand as the *Architectural Project* encompasses *what* the architect does and *how* they do it. We will need to disambiguate it in the broader context of *design processes* and even *architectural design processes*.

The *architectural design process* is based on *procedural reason* and *methodology*: *what* to do, *how* to do it, *when* to do it, and *why* to do it (the *ethos* of doing).



<sup>49</sup> Uexküll, Jakob von (1926) *Theoretical Biology*, New York: Harcourt, Brace & Company, Inc., London: Kegan Paul, Trench, Trubner & Co., Ltd.

**Figure 3.** The Design Process.

Everyone designs who devises courses of action aimed at changing existing situations into preferred ones. The intellectual activity that produces material artifacts is no different fundamentally from the one that prescribes remedies for a sick patient or the one that devises a new sales plan for a company or a social welfare policy for a state. Design, so construed, is the core of all professional training; it is the principal mark that distinguishes the professions from the sciences. Schools of engineering, as well as schools of architecture, business, education, law, and medicine, are all centrally concerned with the process of design. (Simon, 1969, p.5)<sup>50</sup>

*What architects do and how they do it* — the act of doing—brings the architect’s actions closer to the realm of pragmatics and, in a sense, connects it with philosophy through hermeneutics. Regardless, it distances this action from the confines of strict science or the pursuit of absolute certainty within the scientific domain.

*What architects do* involve the *production of visual information*, including drawings, sketches, models, and more. This production and communication process is central to the work of architects and implies associated *rhetoric*. It serves as a means of intrapersonal and reflective production by the architect (*subjective*) and facilitates interpersonal communication (*intersubjective*). Regardless of the categorization in use at any given time and place concerning the work of architects, their actions shape *technical processes*. *What to do and how to do it* will indeed be a hybrid, methodologically decomposed. Nevertheless, distinctive traits can be identified here whether in the operative sequence or their respective contents. First, of a theoretical nature, generated from both general and specific knowledge, followed by *experiential, technical, and operational knowledge*. ‘What to do’ corresponds to determining which characteristics of the object/solution should be considered and prescribed (as necessary and sufficient) to fulfil the goals of the architectural project.

*How architects do it*, by utilizing all the necessary and sufficient resources and means, especially the technical ones, to determine the functional and formal characteristics of the different alternatives and objects/solutions to be prescribed, *represents a unique and individual approach* to accomplishing what needs to be done.<sup>51</sup>

<sup>50</sup> Simon, Herbert A. (1969), *The Sciences of the Artificial*.

<sup>51</sup> *How to do*, potentially but not necessarily, allow for artistic production inherent in the objects created during the project process, as prescriptions.

I will argue that within the realm of the *Architectural Project*, it is essential to take into account the *imagination* and *understanding* of all those involved in the process, as they all engage *necessarily* in *aesthetic judgments*. The functions of *imagining* and *understanding within the process*—"the harmonious free play of the cognitive faculties" [Kant, 1790] as lineage—are assumed in an updated state of the art.

[...] imagining is a form of *simulation*—a mental simulation of action or perception, using many of the same neurons as actually acting or perceiving. (Gallese & Lakoff, 2005, pp 456-457)<sup>52</sup>

*Imagining and doing use a shared neural substrate.* (Gallese & Lakoff, 2005, p.456]

*The same neural substrate used in imagining is used in understanding.* (Gallese & Lakoff, 2005, p.456) [italics in the originals]

The possibility of *understanding* contrasts—conceptually—with that of knowing—*knowledge*—even though both hypotheses have their origin in the Greek *episteme*. The bifurcation is evident, as well as the successive phase changes. The Greek *episteme*, having bifurcated into *understanding* and *knowledge*, bequeathed us the possibility of debates, and the investigations that support them.

## 9. The Architectural Project

Perhaps the phrase “*cause or reason to move forward*” serves as a foundational concept for understanding the intended meaning of the term ‘project,’ whether used as a verb or, subsequently, as a noun. The term ‘Architectural Project,’ or ‘Project of Architecture,’ is hereby defined, specified, and contextualized within the framework of the activities collectively referred to as what architects do—their specific professional work. While this domain is not exclusive to architects, they typically assume a leading role in the process, which may involve a broader range of agents. All of these participants contribute to shaping the specifications of the *Architectural Project*, with the architect primarily responsible for guiding

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<sup>52</sup> The authors also refer to the original work by Gallese, Vittorio (2003), ‘The manifold nature of interpersonal relations: The quest for a common mechanism’, *Philosophical Transactions of the Royal Society of London*, B, 358, pp. 517–528.

the process.

The specific work of a *professional architect* is assumed to encompass the entirety of resources required to address the *architectural problems* they encounter, encompassing both *what* they do and *how* they do it. These resources commonly include the set of all the resources: [a] *schemes, sketches, drawings, and a diverse range of visual graphic productions, photographs, models, digital simulations, and more*—essentially, devices specifically designed to present *architectural solutions*. These resources are often associated, though not always, with [b] other information and communication tools, such as *conversations, speeches, texts, and discourse*. In this context, we can refer to these as *rhetoric* or even the *architect's rhetoric*. As stated in my approach in 'How the Architect Does Things with Words' (de Araújo, Helsinki, 2021), 'discourse' encompasses the rhetorical nature and use of language. *Discursive capacities* reveal the structure of our thinking about the world and serve as the foundation for communication within a broader spectrum of phenomena.

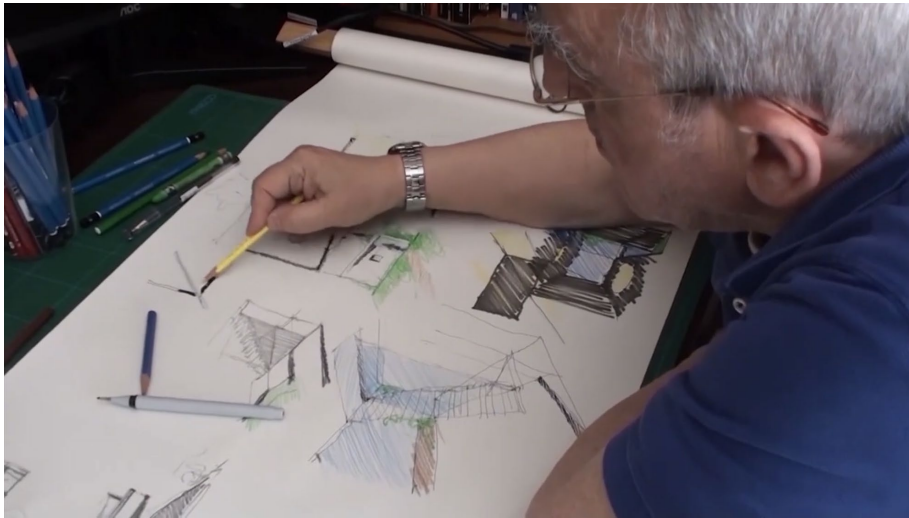
The set of all these resources meets the criteria of 'what the architect does' and allows for the examination of 'how they do it'. I will argue that aesthetic judgments are employed by all agents involved in the *architectural design process* to interact with this set of resources.

The set of all resources operates within two domains: *intrapersonal*, in terms of the architect as an author who provides solutions and engages in self-assessment, and *interpersonal* when it involves all the agents participating in the process. *Information and communication, both intrapersonal and intersubjective, play an active role in these processes.*





**Figure 4.** The *architect at work* draws analogically: the *fusion tool* [mind-eye-hand] plays a crucial role in *creative work*. ‘Drawing by hand’ is an architect’s way of philosophizing. Still from *Two Hands to Philosophize* (2023).



**Figure 5.** The *memory-imagination-intelligence-creation* interaction in the specific work of the architect. *The architect’s way to philosophy*. Still from *Two Hands to Philosophize* (2023).

## 10. Architectural Problems

‘Problems’ represent instances, states of affairs – situations of adverse stimulation: *lack*, *deprivation*, and *conflict*. Whatever the cause.

A system has a problem when it has or is given a description of something, but it doesn’t have that can correspond to that description. (Reitman, 1965)<sup>53</sup>

A problem exists whenever a problem solver desires some outcome or state of affairs that he does not know immediately how to attain. Imperfect knowledge about how to proceed is at the core of the genuinely problematic. (Newel, 1959, p.1)<sup>54</sup>

Every *problem* triggers a *process*.

Every *problem* triggers a [*design*] problem.

Every [*design*] *process* is triggered by a *problem*.

<sup>53</sup> Reitman, Walter R. (1965), “Cognition and Thought: an information-processing approach” [my italics in the quote]

<sup>54</sup> Newel, Allen (1960), “Report on a General Problem-solving Program” [my italics in the quote]

*Architectural projects* are triggered by *architectural problems*.

*Architectural problems* trigger *architectural projects*.

## 11. Process/Design/Project

The dissociation between the *project process* and the *act of construction*—the construction/the constructed objects—segments the process under analysis. In the *Architectural Project*, the role of *imagination* is confined to the process as *a prescription*, as are the roles of *aesthetic judgments* in decision-making and aesthetic judgments on the *imagined production* (visual information /communication) as one of the foundations of *decision-making*. The work of architects is referenced to *imagination* and *prescription*—drawings, sketches, etc., which increasingly serve as the expression of this work today—and at another level, the result of these prescriptions, the built environment, modified structures, buildings, and *constructions*.

The interaction between *imagination* and *possibility* requires that the object of aesthetic judgment in the architect's work process be *conceivable*. From our perspective, it is also necessary to disambiguate images from mental images [Pictorialism vs Descriptivism, Mental Representations vs Descriptions] in the work process of the architect and those involved in the process called the 'architectural design project'. This necessitates *experience with or of* imagined objects.

On the fringes of the *art world*, both within and beyond, it is crucial to recognize that this domain focuses on a variety of potential problem lineages, accompanied by corresponding critical analyses and arguments. In the field we aim to explore, while we must consider *epistemic* issues, the primary emphasis is also on *didactics*. The material production subject to judgment acts as a mediator within the realm of imagination. It complements the rhetoric of various discourses through language, drawings, models, and various other means, leaving behind traces of the imagination of those under evaluation. These traces serve as reflective testimonies that are both *subjective* and *authored*, open to *interpretation by the community of recipients*. Once again, they are subjectively interpreted, but this time within the context of intersubjectivity, which will influence the respective judgments. The project process itself, as well as the work of architects, ultimately depend on these factors.

The argument regarding intersubjectivity as a facet of the world and reality permeates the discourse and critical analysis offered by Sofia Miguens. This is exemplified in the

‘common language of speaking animals, humans,’ within the analytical philosophical tradition, including Wittgenstein, Austin, and others. More recently, it pertains to her work on Stanley Cavell’s philosophy, particularly concerning ‘Aesthetics in the future of Philosophy’, as discussed in *Arte Descomposta* (2022) [Uncomposed Art] (see References). We will refer to the ongoing critical examination of intersubjectivity as ‘future’ or ‘progress,’ challenging Kantian intuition and embracing Sellars’ categorization of images of the world, whether they are scientific or manifest, for our benefit.

## 12. Conclusions

Anticipated conclusions regarding aesthetic judgments within the architectural design process should allow us to equate *the role of aesthetics in architecture*, specifically in terms of what architects do and how they carry out their work.

This role relates to Kant’s concept of ‘cognitive powers’, encompassing the cognitive faculties of the human animal. The *universality* and *subjectivity of the judgment of taste*, as well as *the harmonious free play of these cognitive faculties*, are key aspects.

*Experience, memory, and imagination* collectively provide the foundational structure within which architects *explore* and *rehearse solutions*.

The functions of *imagining* and *understanding* within this process align with what Kant referred to as ‘the harmonious free play of the cognitive faculties’ (Kant, 1790).

It’s important to note that the *possibility of understanding* contrasts conceptually with that of knowing, even though both hypotheses trace their origins back to Greek *episteme*. This bifurcation is evident, with successive phase changes.

In the context of this essay, we do not aim to delve into considerations or critical analyses of the *non-genetic* aspects of aesthetic judgments. Instead, we confine our focus to the faculties of the human animal, both phylogenetically and ontogenetically, which collectively form what we synthetically refer to as ‘human nature.’

*Aesthetic judgments* are made possible and operate within the conceptual framework of *liberal naturalism* and *direct realism*, as suggested by Wollheim, or the naturalistic perspective, as assumed by Kant.

Our senses directly present *objects for judgment*. Everything that exists is perceived by our senses, and our *sensibility* plays a crucial role in these judgments.

*Aesthetics*, encompassing *aesthetic judgments*, plays a fundamental role in the field of *architecture*. By *bridging* insights from both aesthetic theories within a philosophical context [1] and [2] the activities of architects, we can propose *how* and *why* the study of aesthetics is relevant to our understanding and knowledge of architecture.

## References

- Borges de Araújo, Pedro (2021), “How The Architect Does Things With Words”, *(Ever)Green Alvar Aalto*, Helsinki: Alvar Aalto Academy / Alvar Aalto Foundation.
- Borges de Araújo, Pedro (2022), “What The Architect Does, What The Philosophers Do”, *Vision, Possibility, Virtuality*, Porto, Portugal: Ordem dos Arquitectos SRN.
- Buzsáki, György (2019), *The Brain from Inside Out*, Oxford: Oxford University Press.
- Damásio, António (2020), *Feeling & Knowing: Making Minds Conscious*, New York: Pantheon Books.
- Dissanayake, Ellen (1990), *What is art for?*, Baltimore: University of Washington Press.
- Dissanayake, Ellen (1995), *Homo Aestheticus: Where Art Comes From and Why*, Baltimore: University of Washington Press.
- Gallese, Vittorio & Lakoff, George (2005), “The Brain’s Concepts: The Role of the Sensory-Motor System in Conceptual Knowledge”, *Cognitive Neuropsychology*, vol. 22 (3-4), pp. 455–479.
- Gallese, Vittorio & Metzinger, Thomas (2003), “Motor ontology: the representational reality of goals, actions and selves”, *Philosophical Psychology*, Vol. 16, (3).
- Gallese, Vittorio (2003), “The Manifold Nature of Interpersonal Relations: The Quest for a Common Mechanism”, *Philosophical Transactions of The Royal Society of London*, B, pp. 517-528.
- Gallese, Vittorio (2015), “Architectural Space from Within: The Body, Space and the Brain”, Espoo, Finland: Tapio Wirkkala-Rut Bryk Foundation.
- Goethe, Johann Wolfgang von (1980), *Goethe on Art*, Selected, Edited and Translated by John Gage, Oakland, CA: The University of California Press.
- Ingold, Tim (2000), *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, London, and New York: Routledge.

- Kant, Immanuel (1790), *Critique of Judgement*, Translated by Werner S. Pluhar, Indianapolis/Cambridge: Hackett Publishing Company (1987).
- Kant, Immanuel (1790), *Critique of the Power of Judgement*, edited by Paul Guyer, translated by Paul Guyer and Eric Mathews (2000).
- Kantrowitz, Andrea (2022), “How Drawing Helps Us Observe, Discover, and Invent”, Cambridge, MA: The MIT Press Reader, Posted on Nov 11
- Kantrowitz, Andrea (2022), *Drawing Thought: How Drawing Helps Us Observe, Discover, and Invent*, Cambridge, MA: The MIT Press.
- Mallgrave, Harry Francis (2018), *From Object to Experience: The New Culture of Architectural Design*, London, UK: Bloomsbury.
- Miguens, Sofia (2019), *Uma leitura da filosofia contemporânea: Figuras e movimentos*, Lisboa: Edições 70.
- Miguens, Sofia (2022), *Arte Descomposta: Stanley Cavell, a estética e o futuro da filosofia*, Lisboa: Edições 70.
- Miguens, Sofia, (2004), *Racionalidade*, Porto: Campo das Letras.
- Newell, Allen (1960), “Report on a General Problem-solving Program”.
- Newell, Allen, Shaw, J. C. and Simon, Herbert A. (1958), “Elements of a Theory of Human Problem Solving”, *Psychological Review*, Vol. 65. No. 3.
- Pallasmaa, Juhani et al. (2013), *Architecture and Neuroscience*, Espoo, Finland: Tapio Wirkkala–Rut Bryk Design Reader with essays by Juhani Pallasmaa, Harry Francis Mallgrave and Michael Arbib, edited by Philip Tidwell.
- Pallasmaa, Juhani et al. (2015), *Architecture and Empathy*, Espoo, Finland: Tapio Wirkkala–Rut Bryk Design Reader with contributions from Juhani Pallasmaa, Harry Francis Mallgrave, Sarah Robinson and Vittorio Gallese, edited by Philip Tidwell.
- Putnam, Hilary (2016), *Naturalism, Realism and Normativity*, Edited by Mario Caro, Cambridge MA, & London UK: Harvard University Press.
- Reitman, Walter R. (1965), “Cognition and Thought: an information-processing approach”
- Russell, Bertrand (1912), *Os Problemas da Filosofia*. Arménio Amado, Editor, Sucessor, 1980
- Russell, Bertrand (1912), *The Problems of Philosophy*, ed. John Perry (1997), Oxford: Oxford University Press.
- Russell, Bertrand (1912), *The Problems of Philosophy*, Project Gutenberg’s (2012)

- Simon, Herbert A. (1969), *The Sciences of the Artificial*, Cambridge, MA: The MIT Press.
- Thagard, Paul, "Cognitive Science", The Stanford Encyclopedia of Philosophy (Spring 2023 Edition), Edward N. Zalta & Uri Nodelman (eds.), URL = <https://plato.stanford.edu/archives/spr2023/entries/cognitive-science/>.
- Uexküll, Jakob Von (1926), *Theoretical Biology*, New York: Harcourt, Brace & Company, Inc., London: Kegan Paul, Trench, Trubner & Co., Ltd.
- Vermeij, Geerat J. (2004), *Nature: An Economic History*, Princeton and Oxford: Princeton University Press
- Wishon, Donovan and Linsky, Bernard, eds. (2015), *Acquaintance, Knowledge, and Logic: New Essays on Bertrand Russell's The Problems of Philosophy*, Stanford, CA: CSLI Publications.
- Wollheim, Richard (1968), *Art and its Objects*, 1st Edition by Harper & Row.
- Wollheim, Richard (1968), *Art and its objects: an introduction to aesthetics*, New York and London: Harper & Row. First published by Harper & Row (1968); Published in Pelican Books (1970); Reissued in Peregrine Books (1975)
- Wollheim, Richard (1980), *Art and its Objects*, Cambridge, United Kingdom: Cambridge University Press.
- Pedro Borges de Araújo & Sérgio Amorim (2023), *Two Hands To Philosophize*, the film presented in the symposium "Architecture in the Age of Digital Media" held from May 25 to May 27, at the University of Patras, Greece, available at the MLAG website <https://mlag.up.pt/> or requested to [af.autofocusproject@gmail.com](mailto:af.autofocusproject@gmail.com)
- Pedro Borges de Araújo & Sérgio Amorim (2023), *Two Hands To Philosophize*, a short film presented at the European Society for Aesthetics, Budapest ESA 2023 Conference, House of Music, 29 June-1 July, available at the MLAG website <https://mlag.up.pt/> or requested to [af.autofocusproject@gmail.com](mailto:af.autofocusproject@gmail.com)