

# Voids and bodies: August Schmarsow, Bruno Zevi and space as a historiographical theme

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The understanding that the concept of space should constitute one of the major concerns of architectural theory was first articulated in the work of August Schmarsow, and from Schmarsow's writings this notion came to dominate twentieth-century modernist architecture. In this paper I analyze the historiographical implications of this emphasis on spatial concerns by comparing Schmarsow's theoretical positions with Bruno Zevi's historiographical work. Schmarsow and Zevi are separated by half a century; while they lived and worked within different cultural contexts, they both emphasized the notion of space and theorized the implications of this emphasis for architecture and its historiography. Their juxtaposition consequently enables wider discussions on the role of abstract and embodied aspects of spatiality and how these aspects can be treated within the field of architectural history.

## **The power of the spatial experience**

August Schmarsow is known as the first architectural theorist to insist on a spatial approach in the study of architecture. His horizons were formed by the discipline of architectural history as it was developed in Germanic countries during the late nineteenth century, and he is here introduced in relation to Jacob Burckhardt and Heinrich Wölfflin. The Italian Bruno Zevi is well-known for his vision of an 'organic architecture', a vision based on his understanding of space as the essence of architecture through which rigid architectural forms could be shaken and (as he thought) authoritarian political systems overthrown. Zevi's understanding of space is here introduced in relation to Geoffrey Scott's and Sigfried Giedion's.

The embodied human individual has a central position in Schmarsow's and Zevi's historiographies. Both described how the dimension of depth encourages humans to move through architectural space and both proposed that it is this movement that gives the individual the capability of not only experiencing but also forming architecture. This proposition led them to speculate about ways spatial experiences can catalyze the individual's interest in, and desire for architecture. While Schmarsow permitted his reader to interpret if and how his ideas could be assimilated by practising architects, Zevi presented theoretical invariables and instrumental guidance as to how architectural history should be taught to students of architecture. Zevi used his ideas on spatiality in architecture to propose a polemic program for architectural and societal change, while Schmarsow stuck to asking

questions about what it might mean to understand architectural history from a spatial point of view.

### **August Schmarsow and the shaping of space**

An academic structure for research in the fields of art and culture was established in the Germanic countries during the late nineteenth century. The boundaries between the disciplines were not yet strictly drawn, and a basic idea connected them: the aim of understanding how humans interact with each other and their surroundings. The historian Jacob Burckhardt laid the foundations of a 'scientific' framework for studying cultural expressions, a *Kulturwissenschaft*. The human individual has a central position in his historiography. The microcosm of the individual human being, Burckhardt said, may be understood through the macrocosm of the culture he is in, and vice versa.<sup>1</sup> History, to him, involved both everyday life and artistic masterpieces; it gave cultural explanations to artistic expressions.<sup>2</sup> The human was seen not as a passive reflection of his context, but as an active agent who had the power to change himself and the world. Burckhardt's views on history and culture have inspired many, including his disciples Heinrich Wölfflin and Friedrich Nietzsche.

The unpredictability of the individual might disturb those who want to organize history, yet on the other hand, common agreements on what history is may cause passivity among historians. Nietzsche condemned historians who through their search for historical truths, motivated by their beliefs in the powers of morality and science, create a distance between history and actual remains of past events. Historiography, according to him, 'affirms as little as it denies, it asserts and "describes"'; the historian looks at things from a comfortable distance.<sup>3</sup> Instead of longing for a universal system, he said, every historian should strive to reach the emergence of a thing, its origin (*Ursprung*), and be aware of that this origin is separate and distinct from its purpose or use that can change over time. If the will to truth makes us adapt – react – to external circumstances, acknowledging the will to power means we have to regard the activity that comes before every determination of a purpose.<sup>4</sup> The relation between actions and reactions, phenomena and the interpretations applied to them, is central to the discussion of the notion of space and its implications for architectural historiography as presented in this paper.

<sup>1</sup> Jacob Burckhardt published *Die Cultur der Renaissance in Italien. Ein Versuch* in 1860, and *Geschichte der Renaissance in Italien* in 1867. In these books, Burckhardt presents an era in which world and man were discovered, and the human being became the model of the world.

<sup>2</sup> Andrew Leach, *What is Architectural History?*, Cambridge and Malden: Polity Press, 2010, 32–35.

<sup>3</sup> Friedrich Nietzsche, *On the Genealogy of Morality*, Keith Ansell-Pearson, ed., Cambridge: Cambridge University Press, 2006, 116–118 (third essay, paragraph 26). Originally published as *Zür Genealogie der Moral. Eine Streitschrift*, Leipzig: Verlag von C. G. Naumann, 1887.

<sup>4</sup> Nietzsche, *On the Genealogy of Morality*, 51–52.

Schmarsow was among the German-speaking scholars of aesthetics and history who proposed a 'scientific' approach to art (*Kunstwissenschaft*) through which 'the universal laws governing artistic formation and stylistic evolution' would be described.<sup>5</sup> Schmarsow became the first architectural historian to specialize on the notion of space; he even called architecture the 'creatress of space' (*Raumgestalterin*).<sup>6</sup> The individual is able to create architecture, Schmarsow thought, because of his sense of space (*Raumgefühl*) and spatial imagination (*Raumphantasie*).<sup>7</sup> Schmarsow's comprehension of space may be seen as a reaction to Wölfflin's recognition of architectural form.<sup>8</sup> While Schmarsow saw massive elements as a 'means to an aesthetic end' of appreciation of space,<sup>9</sup> Wölfflin claimed space to be a milieu (*Umwelt*) for form and not of interest in its own right.<sup>10</sup>

Although drawing different conclusions as to what it is in architecture that is most important for the human perception, Schmarsow's and Wölfflin's theories have a common foundational constituent; the aesthetic notion of *Einfühlung*, or empathy. The notion of *Einfühlung* in relation to architecture and art was introduced in 1873 by Robert Vischer in 'The Spatial Understanding of Forms'<sup>11</sup> and is central to the explanatory models Wölfflin and Schmarsow used to describe the human individual in relation to architecture. *Einfühlung* concerns the relation between the body of the individual and the world. It includes all our senses, although aesthetic theories of empathy often regard visuality as a key to a fully embodied experience of, for instance, an architectural structure. While Wölfflin described correspondences between the human body and massive elements of architecture, Schmarsow suggested it is by moving through space that humans relate to architecture. Within each individual standing in space, Schmarsow explained, is an empty vertical axis and next to this verticality within us, 'the most important direction for the actual spatial construct is the direction of free movement – that is, forward – and that of our vision, which, with the placement and positioning of the eyes, defines the dimension of depth'.<sup>12</sup>

<sup>5</sup> Harry Francis Mallgrave and Eleftherios Ikonou, trans. and eds, *Empathy, Form, and Space: Problems in German Aesthetics, 1873–1893*, Santa Monica: Getty Center for the History of Art and the Humanities, 1994, 40.

<sup>6</sup> August Schmarsow, 'The Essence of Architectural Creation', in Mallgrave and Ikonou, *Empathy, Form, and Space* (a translation of the lecture 'Das Wesen der architektonischen Schöpfung' given in Leipzig, 8 November 1893), 287.

<sup>7</sup> Schmarsow, 'The Essence of Architectural Creation', 287.

<sup>8</sup> Mallgrave and Ikonou, *Empathy, Form and Space*, 43–44. Schmarsow and Wölfflin competed about the chair of art history at Leipzig, which Schmarsow received in 1893. Their relationship turned rather bitter thereafter, and Schmarsow's spatial perspective on history in the inaugural lecture in Leipzig, 'The Essence of Architectural Creation', can be read as a reaction against Wölfflin's understanding of architecture. (Mallgrave and Ikonou, *Empathy, Form, and Space*, 64–65.)

<sup>9</sup> Schmarsow, 'The Essence of Architectural Creation', 285.

<sup>10</sup> Sven-Olov Wallenstein, *Den moderna arkitekturens filosofi*, Stockholm: Alfabeta, 2004, 30–31.

<sup>11</sup> Published in Mallgrave and Ikonou, *Empathy, Form, and Space*, 17–29.

<sup>12</sup> Schmarsow, 'The Essence of Architectural Creation', 289.

Depending on how they are composed, forms and spaces generate different kinds of expressions and experiences to which architectural historians often attach the notion of style. Wölfflin, in Burckhardt's spirit, saw style as the visual expression of the feeling of life (*Lebensgefühl*) of an era, an expression depending on the emotional and physiological aspects of the human individual.<sup>13</sup> The individual cannot, he thought, develop just any style; his expression depends on his blood, i.e. his race.<sup>14</sup> Schmarsow criticized this stance by accusing Wölfflin of basing his ideas on how styles change on prejudices rather than proper empirical and inductive methods. Schmarsow stated that while a historian 'strives to extract the qualities that he successively confronts in this or that combination as they emerge from the sources', Wölfflin 'proceeds as a dogmatist who wants to assume a very specific distinction as given and as established fact'.<sup>15</sup>

However, both Schmarsow and Wölfflin thought that universal aspects of architecture exist. Schmarsow believed that all architecture is united by the kernel of space.<sup>16</sup> According to him even the 'domestic seclusion and cozy setting of our private lives' is architectural history,<sup>17</sup> and the human individual is the same when standing in a shelter built yesterday or a monument built centuries ago. Schmarsow proposed a 'genetic' architectural history, and claimed architecture to be 'the creatress of space, in accordance with the ideal forms of the human intuition of space'.<sup>18</sup> Yet he admitted that meanings and ideals change over time, and that it is impossible to judge the value spatial creations from the past had to those who first created them: 'We can only imperfectly appreciate these works of art and bring to life their purely aesthetic content.'<sup>19</sup> In my interpretation this means that any assumptions that a phenomenon or expression has certain given connotations should be challenged.

Schmarsow claimed that the security of a belief in a moral collective order is materialized in the composition of a city and in monumental buildings. In order to 'liberate architecture as art' and get rid of 'limiting prejudice' architecture should also include the individual's urge for going 'back to a pristine nature untouched by human hand or foot', into the wilderness.<sup>20</sup> In Greek antiquity, he reminded his reader, the architect was seen as a constructor of worldviews and as such placed

<sup>13</sup> Paul Zucker, 'The Paradox of Architectural Theories at the Beginning of the "Modern Movement"', *Journal of the Society of Architectural Historians*, vol. 10, no. 3, October 1951, 9.

<sup>14</sup> Heinrich Wölfflin, *Principles of Art History: The Problem of the Development of Style in Later Art*, Dover Publications, Inc., 1950, 11, 106. Translation by M. D. Hottinger of the seventh German edition, from 1929. Originally published in 1921, as *Kunstgeschichtliche Grundbegriffe: das Problem der Stilentwicklung in der neueren Kunst*.

<sup>15</sup> Schmarsow in Mallgrave and Ikonomidou, 84 (note 216), quote translated from 'Kunstwissenschaft und Kulturphilosophie mit gemeinsamen Grundbegriffen', *Zeitschrift für Aesthetik und allgemeine Kunstwissenschaft*, vol. 13, 1919, 175.

<sup>16</sup> Schmarsow, 'The Essence of Architectural Creation', 284–285. It was in opposition to Gottfried Semper that Schmarsow rejected this distinction.

<sup>17</sup> Schmarsow, 'The Essence of Architectural Creation', 296.

<sup>18</sup> Schmarsow, 'The Essence of Architectural Creation', 288.

<sup>19</sup> Schmarsow, 'The Essence of Architectural Creation', 296.

<sup>20</sup> Schmarsow, 'The Essence of Architectural Creation', 294–295.

beside the poet and the philosopher. In a critique directed towards his own discipline as well as the society he was a part of, Schmarsow concluded his lecture 'The Essence of Architectural Creation', given in Leipzig in 1893, with rhetorical questions to which the answer was spatial creation:

Should it really be so different with us today when before our eyes is raised a seat of jurisprudence, which the German people has erected as a sure stronghold of sound conviction against the sudden impulses and vacillations of the individual's sense of justice? / Should not architecture also today, in turning back to the time-honored, inner aspect of its creations, once again find its way into the hearts of the general population by becoming the *creatress of space*? It is said that the spirit builds the body in its own image. *The history of architecture is the history of the sense of space*, and thus consciously or unconsciously it is a basic constituent in the history of *worldviews*.<sup>21</sup>

When Schmarsow called architectural history the history of the sense of space, he emphasized the liaison between the body and what surrounds it. As the philosopher Sven-Olov Wallenstein says: space was for Schmarsow not only a container for the body, but a projection from within the embodied subject.<sup>22</sup> The rhythms of the heartbeat, the muscular sensations and the breathing, were seen by Schmarsow as conditions for how the individual as an embodied mind moves through and perceives space.

### **Bruno Zevi and the spaces of an ideal society**

Before further discussing some implications of using the notion of space as a lens with which to examine architectural history, it is now time to introduce Bruno Zevi and other relevant architectural historians. Zevi produced his most influential books during the mid-twentieth century, first in exile and then at home, in Italy. Shaped by his times of war and political radicalism he integrated political agendas into his historiography to a greater extent than most other historians. Zevi proposed architecture as a means of creating a society, or even utopia, where each and every human individual would have equal rights to built space.<sup>23</sup> And he did so by looking towards the history of architecture: 'The historiographical revolution is an indispensable accomplice of the architectural revolution.'<sup>24</sup>

Zevi's architectural ideas were based on a rejection of classicism because classicism, he thought, had always been an expression of ruling regimes. His body of publications instead form a program for an 'organic architecture' in which Frank Lloyd Wright's architectural methods and designs are presented as an ideal. In

<sup>21</sup> Schmarsow, 'The Essence of Architectural Creation', 296 (original italics).

<sup>22</sup> Wallenstein, *Den moderna arkitekturens filosofier*, 32.

<sup>23</sup> Panayotis Tournikiotis, *The Historiography of Modern Architecture*, Cambridge and London: The MIT Press, 1999 (with a chapter on Bruno Zevi: 'The Critical Resurgence of Modern Architecture', 51–83), 54.

<sup>24</sup> Bruno Zevi, *The Modern Language of Architecture*, New York: Da Capo Press, 1994, 116.

Zevi's opinion anything ideal should be characterized as 'modern' and 'revolutionary'. He identified a concept, individual or movement as revolutionary if it was anticlassical and innovative, and modern if it was, as he put it, contemporary.<sup>25</sup> Zevi's operative architectural history has, as we shall see, been criticized for giving instrumental and biased answers to what architecture has been and – most importantly – to what its future should be.

It was primarily in his first book, *Verso un'architettura organica* from 1943, that Zevi presented 'organic architecture' as an alternative to rational and functional architecture. 'Organic architecture' has as a precondition an understanding of the notion of space as the primary aspect of architecture. Zevi described his view on space in architecture in *Saper vedere l'architettura* from 1948 (in English appearing as *Architecture as Space* in 1957), a book dedicated to his friends in the 'organic movement'.<sup>26</sup> The primacy of space was also a foundation for the seven principles presented later in his career as *The Modern Language of Architecture*.<sup>27</sup>

Although inseparable, it is Zevi's ideas and principles of space rather than his 'organic architecture' that will be discussed in this paper. Examining spatiality as explained by Zevi one finds that his principles for a modern architecture are not unbiased truths and are often shaped to affirm his own political and religious views.

During exile in the 1940s Zevi read English translations of the German historians who had described the Modern Movement. Nikolaus Pevsner and Sigfried Giedion came to be among Zevi's main inspirations for his own writings on modern architecture.<sup>28</sup> As a polemical modernist, Zevi aimed to challenge his forerunners and contemporaries by not only describing the historical and universal foundations of modern architecture, but also stating 'the terms on which modern architecture can be applied'.<sup>29</sup> The role of modern criticism was for him to formulate a history renewed through the inclusion of modern architecture, a history which would 'contribute to the formation of a higher civilization'.<sup>30</sup>

Pevsner, Giedion and Zevi are known as operative historians, writing about the past in order to propose directions for the future. The notion of space plays an important

<sup>25</sup> Tournikiotis, *The Historiography of Modern Architecture*, 58.

<sup>26</sup> Zevi dedicates *Architecture as Space* "To all my friends in the Movement for Organic Architecture", 4.

<sup>27</sup> Bruno Zevi's *The Modern Language of Architecture* was originally published by the University of Washington Press, 1978. It is a combination of two works: Part I, 'A Guide to the Anticlassical Code', translated by Ronald Strom from *Il linguaggio moderno dell'architettura: Guida al codice anticlassico*, Torino: Piccola Biblioteca Einaudi 214, 1973. Part II, 'Architecture versus Architectural History', translated by William A. Packer from *Architettura e storiografia*, Torino: Piccola Biblioteca Einaudi 216, 1974. (Original publication: *Architettura e storiografia*, Milano: Libreria Editrice Politecnica Tamburini, 1950.)

<sup>28</sup> Tournikiotis, *The Historiography of Modern Architecture*, 51.

<sup>29</sup> Tournikiotis, *The Historiography of Modern Architecture*, 66.

<sup>30</sup> Bruno Zevi, *Architecture as Space. How to Look at Architecture*, New York: Horizon Press, 1957, 228. Milton Gendel, trans., Joseph A. Barry, ed. Originally published in Italian as *Saper vedere l'architettura*, Torino: Giulio Einaudi editore, 1948. Also published in English in 1974 by Horizon Press, and in 1993 by Da Capo Press, both in New York.

role in their historiographies. Did they study Schmarsow, the first architectural historian to emphasize spatiality?

Pevsner's dissertation and first book *Leipziger Barock. Die Baukunst der Barockzeit in Leipzig* from 1928 relied on methods proposed by Schmarsow in his studies of Baroque and Rococo.<sup>31</sup> Giedion gave the human individual and his perception of space a central position in his seminal book *Space, Time, and Architecture* from 1941. In the introduction to that book Giedion explained that his view of architectural history is shaped by the efforts of his mentor Wölfflin and of Wölfflin's mentor Burckhardt.<sup>32</sup> Giedion did not mention Schmarsow in *Space, Time, and Architecture*, however, he referred to Schmarsow when proposing ideas for the education of architects in the article 'History and the Architect' from 1957, the same year as Zevi's *Architecture as Space* appeared in English.<sup>33</sup>

Zevi did not refer to Schmarsow when discussing the notion of space in architecture. In *Architecture as Space* he accused those who appreciate the theory of *Einfühlung* of attempting to 'reduce art to a science: a building becomes nothing but a machine for producing certain predetermined human reactions'.<sup>34</sup> Zevi's understanding of space owed much to the English scholar Geoffrey Scott's *The Architecture of Humanism: A Study in the History of Taste*, published in 1914 and quoted at length in *Architecture as Space*. Since Zevi dissociated himself from the theory of *Einfühlung* or empathy, it might be worth noting that Scott was one of the first to introduce this notion into English-language architectural theory.<sup>35</sup> Scott claimed that *The Architecture of Humanism* had profited from Wölfflin's *Renaissance*

<sup>31</sup> German-born British architectural historian Nikolaus Pevsner refers to having studied Schmarsow in the introduction to his dissertation. Schmarsow's influence on Pevsner is mentioned by Anthony Vidler in *Histories of the Immediate Present: Inventing Architectural Modernism*, Cambridge and London: The MIT Press, 2008, and described more in depth in the anthology Peter Draper, ed., *Reassessing Nikolaus Pevsner*, Ashgate, 2004.

<sup>32</sup> Sigfried Giedion, *Space, Time, and Architecture: The Growth of a New Tradition*, Cambridge and London: Harvard University Press, 2008 (originally published in 1941), 2-5.

<sup>33</sup> Sigfried Giedion, 'History and the Architect', *Journal of Architectural Education*, vol. 12, no. 2, summer 1957, 14-16.

<sup>34</sup> Zevi, *Architecture as Space*, 188.

<sup>35</sup> David Watkin, in an introduction to an edition of Geoffrey Scott's *The Architecture of Humanism: A Study in the History of Taste* published by The Architectural Press, London, 1980, has described how Bernard Berenson and Violet Paget (under the pseudonym Vernon Lee) brought the notion of *Einfühlung* or empathy from German to English art circles, and how they inspired Scott to become one of the first to elaborate ideas around this notion within English-language architectural history. Berenson did, according to Watkin, base his understanding of *Einfühlung* on works by Theodor Lipps, Robert Vischer, Adolf Hildebrand and August Schmarsow.

Branko Mitrović, in his article 'Apollo's Own: Geoffrey Scott and the Lost Pleasures of Architectural History', *Journal of Architectural Education*, vol. 54, no. 2, Nov., 2000, 95-103, argues that although Scott referred to Lipps in *The Architecture of Humanism* and therefore has been interpreted to base his book on 'empathy-based aesthetic theories', Scott was actually a formalist.

*und Barock*,<sup>36</sup> a work aiming to scientifically discuss how humans react to architectural form.

Scott's book was based on Italian Renaissance and Baroque, but may be seen as applicable to all architecture, regardless of style.<sup>37</sup> According to Scott, any judgment or association is a reaction to the 'language of the original voice of architecture' as expressed through the natural criteria Space, Mass, Line and their synthesis in what he calls Coherence.<sup>38</sup> He claimed architecture to be the only art giving space its full three-dimensional value, and proposed that the architect's method should be to use mass as a support for the creation of space enabling movement.<sup>39</sup> Similarly to Wölfflin, Schmarsow and Zevi, Scott thought that there are original architectural parameters such as form and space and that these are related to the human body. Humanism was for Scott the way in which we as humans naturally perceive the world through transcribing '*architecture into terms of ourselves*' and, accordingly, architecture is 'the transcription of the body's states into forms of buildings'.<sup>40</sup> He separated form and space from their meanings or contexts. In order to clear the ground for architecture's original voice, he warned of four 'fallacies' – Mechanical, Romantic, Ethical and Biological – through which ideas from science, poetry, morals and philosophy undermine art and architecture. This approach stands in contrast to Zevi's mix of associations, building up his arguments for giving priority to spatial studies of history within architecture. Zevi assumed what Scott called fallacies to be 'aspects of the cosmos of the work of art', which must also be included in architectural history.<sup>41</sup>

### **August Schmarsow, Bruno Zevi and the body that moves through space**

With Pevsner, Giedion and Scott among his main inspirations, but barely no reference to Schmarsow, what makes it worth setting Zevi's historiography in relation to Schmarsow's? Schmarsow and Zevi worked in different times and contexts, and yet their accounts of the importance of space in and for architecture follow similar tracks. They both gave space priority as the primary aspect of architecture and architectural history, while other architectural historians regard space as one parameter of many. For Schmarsow, space was the essence of architecture. Zevi claimed that the 'spatial interpretation' of architecture should be parallel to every other kind of interpretation; be it political, philosophical-religious, scientific, materialist, technical, physio-psychological or formalist. As a result he stated that no aspect of architecture could be understood unless the spatial aspect,

<sup>36</sup> Geoffrey Scott, *The Architecture of Humanism: A Study in the History of Taste*, New York and London: W. W. Norton & Co., 1999 (1914), Preface, 12.

<sup>37</sup> Paul Barolsky, 'The Aesthetic Criticism of Geoffrey Scott', in Scott, *The Architecture of Humanism*, xv.

<sup>38</sup> Scott, *The Architecture of Humanism*, 125.

<sup>39</sup> Scott, *The Architecture of Humanism*, 168–171.

<sup>40</sup> Scott, *The Architecture of Humanism*, 159–161 (original italics).

<sup>41</sup> Zevi, *Architecture as Space*, 162.



and especially that of the internal space of a building, was included.<sup>42</sup> The primacy of space, they both argued, makes the human individual central to architecture. Zevi and Schmarsow proposed that architecture comes about as one moves through it. They let the embodied individual and his movement through space become a bridge between past and future architecture, between experiencing and making architecture.

To look at buildings from the outside, Schmarsow claimed, cannot lead to an understanding of their laws of formation – they have to be experienced from within.<sup>43</sup> Zevi's 'organic architecture' was based on the idea that space is made by and for man, 'in accordance with man's intellectual, psychological, and contemporary needs as a member of society'.<sup>44</sup> He believed that by moving through space the individual (man) may feel either oppressed or emancipated, and that good architecture should be constructed around the activities of its inhabitants.<sup>45</sup> The content of architecture is in fact, according to Zevi, 'the men who live in architectural space, their actions, indeed their whole physical, psychological and spiritual life as it takes place within it'.<sup>46</sup>

By presenting a history of architecture that shifts as humans move within its spaces, both Schmarsow and Zevi acknowledged the individual's ability to change his surroundings, and thereby the society he acts within. If Schmarsow urged for a return of architecture into the hearts of the general population, Zevi aimed with *Architecture as Space* to teach people how to look at architecture.<sup>47</sup> A 'cultural order' in which common people could feel a real passion for architecture would then be re-established,<sup>48</sup> but what would constitute this cultural order? For Zevi a central element of this cultural order was the notion that space is the essence of architecture.<sup>49</sup> Zevi reached his position, he claimed, by merely summing up the 'intuitions' of Vischer and Wölfflin,<sup>50</sup> yet as we shall see, his endeavour appears as confusing and biased rather than clarifying.

If Schmarsow talked about returning to the ideal forms of the human intuition of space, Zevi discussed a 'zero degree' of architecture, from which buildings could be made, based on the needs of human individuals, as if for the first time.<sup>51</sup> They both believed in a constant human struggle towards a beginning, from which architectural space is invented. While Schmarsow acknowledged the unpredictability of the relations between ideal and built as well as between past and present, Zevi presented his reader with solutions. For instance, he proposed that it is possible to reach the genesis of a historical architect's inspiration through studying

<sup>42</sup> Zevi, *Architecture as Space*, 160–224.

<sup>43</sup> Schmarsow, 'The Essence of Architectural Creation', 293.

<sup>44</sup> Bruno Zevi in Tournikiotis, *The Historiography of Modern Architecture*, 55.

<sup>45</sup> Tournikiotis, *The Historiography of Modern Architecture*, 55.

<sup>46</sup> Zevi, *Architecture as Space*, 220.

<sup>47</sup> Zevi, *Architecture as Space*, 21.

<sup>48</sup> Zevi, *Architecture as Space*, 16–17.

<sup>49</sup> Zevi, *Architecture as Space*, 21.

<sup>50</sup> Zevi, *Architecture as Space*, 21.

<sup>51</sup> Tournikiotis, *The Historiography of Modern Architecture*, 57.

documents from that architect's design process.<sup>52</sup> Another technique leading towards primal purity, Zevi explained in *The Modern Language of Architecture*, is to start each design project by making a list or inventory of needs and functions, from which every building may be built as if it were the very first one.<sup>53</sup>

In other words, an essential difference between Schmarsow and Zevi is the degree to which they gave instructions for how their ideas should be used in architectural education and practise. Schmarsow, although agitating for space as the essence of architecture, allowed for interpretations of how this essence could be maintained in two-dimensional drawings and three-dimensional buildings. More than half a century after Schmarsow's 'The Essence of Architectural Creation', Zevi requested a coherent method for describing an architectural history based on the notion of space, and commenced the chapter 'Space – Protagonist of Architecture' in *Architecture as Space* by criticizing all prior architectural historians:

A satisfactory history of architecture has not yet been written, because we are still not accustomed to thinking in terms of space, and because historians of architecture have failed to apply a coherent method of studying buildings from a spatial point of view.<sup>54</sup>

Zevi was, according to himself, the first to discuss the problem of architectural representation of space, a problem which could, he thought, disappear through a clear conception of architectural space. Until the problem was solved, architectural education would be inadequate.<sup>55</sup>

In my opinion it is dangerous to discuss space (or any other notion), the way Schmarsow and Zevi did, as the essence of architecture and propose that the recognition of this essence will lead to a more equal society. Yet bodies and objects continue to move in space, and their presence within the discourse of architectural history is, I believe, of relevance still today.

According to Schmarsow and Zevi it is the capacity to surround and mobilize the human body that primarily characterizes architecture and in this way it differs from other art forms. So, what is it that makes people move through space? Both Schmarsow and Zevi started their discussions of movements in space by describing the dimensions of architecture. Schmarsow stated that while the first and horizontal dimension is primary in painting and the second and vertical dimension rules sculpture, the third dimension of depth is specific for architecture, and it is depth that triggers movement in architectural space.<sup>56</sup> In addition to the third dimension of depth, Zevi was occupied by the temporal aspect of space, claiming

<sup>52</sup> James Smith Pierce, 'Old Drawings for New Students', *Journal of Architectural Education*, vol. 19, no. 4, June 1965, 59.

<sup>53</sup> Zevi, *The Modern Language of Architecture*, 7–13.

<sup>54</sup> Zevi, *Architecture as Space*, 22.

<sup>55</sup> Zevi *Architecture as Space*, 45–46.

<sup>56</sup> Schmarsow treats the dimensions of art in 'Über den Werth der Dimensionen in menschlichen Raumgebilde', *Berichte über die Verhandlungen der Königlich Sächsischen Gesellschaft der Wissenschaften zu Leipzig*, Philologisch-Historische Klasse, 48, 23 April 1896, 44–61. Zevi discusses the dimensions of art in *Architecture as Space*, 24–27.

that the fourth dimension of time is created in architecture by 'man *moving about within the building* [...] giving the space an integrated reality'.<sup>57</sup> With time, Zevi proposed, inner and outer space may be fused and the human individual liberated.<sup>58</sup>

In concrete terms, Schmarsow and Zevi both discussed movement in relation to symmetrical and asymmetrical architectural compositions. When a human stands in space, Schmarsow said, 'symmetry prevails throughout the horizontal extension or on all sides', while 'the law of proportion dominates in the vertical axis, always in relation to the subject and his optical standard'.<sup>59</sup> However, even if Schmarsow was convinced that the basic order of the human mind is to seek to see and create order in the external world, he also accepted that a 'pure and rigid form would in the long run prove unbearably oppressive as the everyday setting for human life'.<sup>60</sup> The more the parts of an architectural composition deviate from the whole, he continued, the more its spaces provoke the human sensation of force.<sup>61</sup>

Zevi quoted a passage from Scott<sup>62</sup> to propose that masses and lines are composed to create promises of how a human can move through a sequence of spaces. According to Scott beauty would be reached if these initial promises were fulfilled when the individual moved within the building, and if not, the composition would be judged as ugly.<sup>63</sup> Scott claimed this principle to apply both to symmetrical and asymmetrical compositions. He said that a symmetrical space duly proportioned to the body enables us to stand still and centred, breath calmly and imagine to move in any direction, while other spaces invite us to physically move.<sup>64</sup>

While Scott, like Schmarsow, described fixed and dynamic aspects of space as complementary to each other, Zevi despised rigidity and symmetry in the name of 'organic architecture'. Schmarsow noted that the symmetrical human body is a unit where all parts collaborate.<sup>65</sup> Zevi also stated this fact, but went on to say that in motion the body becomes asymmetrical; an architecture catalysing emancipative movement should therefore be asymmetrical, while symmetrical structures are associated with austere politics and mental illness.<sup>66</sup> While Wölfflin thought

<sup>57</sup> Zevi, *Architecture as Space*, 27 (original italics).

<sup>58</sup> See the sixth and seventh invariables of Zevi's modern language of architecture, *Space in Time and Reintegration of Building, City, and Landscape*, in Zevi, *The Modern Language of Architecture*, 47–63.

<sup>59</sup> Schmarsow, 'The Essence of Architectural Creation', 290.

<sup>60</sup> Schmarsow, 'The Essence of Architectural Creation', 291.

<sup>61</sup> Schmarsow, 'The Essence of Architectural Creation', 294.

<sup>62</sup> Zevi, *Architecture as Space*, 218.

<sup>63</sup> Scott, *The Architecture of Humanism*, 166–167.

<sup>64</sup> Scott, *The Architecture of Humanism*, 169.

<sup>65</sup> August Schmarsow, *Grundbegriffe der Kunstwissenschaft – Am Übergang vom Altertum zum Mittelalter kritisch erörtert und in systematischem Zusammenhange dargestellt*, Leipzig and Berlin: B. G. Teubner, 1905, 248–250. Schmarsow describes the constitution of the human body with reference to the biologist Rudolf Virchow.

<sup>66</sup> Andrea Oppenheimer Dean, *Bruno Zevi on Modern Architecture*, New York: Rizzoli International Publications, 1983, 60.

asymmetry could cause pain,<sup>67</sup> Zevi imagined it to bring freedom. In his modern language of architecture, asymmetrical architectural compositions form a good society.<sup>68</sup>

As mentioned previously, Zevi's recipe for architecture combined his inspirations in a polemical manner, presenting his modern language of architecture as an alternative to John Summerson's classical language of architecture.<sup>69</sup> Zevi aimed to create a worldview where everything is in movement, even the most stable elements of architecture. This worldview was based on what he presented as the Jewish notion of Space-Time, which was a condition for *Space in Time*, Zevi's sixth invariable of modern architecture.<sup>70</sup> Zevi presented the Greco-Roman perception of space as static and connected to classicism and suggested that the Jewish idea of an integration of space with time was more suitable for understanding the open designs of modern architecture.<sup>71</sup> In Hebraism, Zevi said, beings and forms are not fixed; they become. To illustrate this, he described the task of Jews to create the world by celebrating religious events set in time rather than linked to places and things.<sup>72</sup> Zevi thought that once architects had learnt to see the world as a becoming, they would abandon the neurosis and falsity of authoritarian classical orders and work as the 'authentic creative artists' that modern architects really were.<sup>73</sup> Le Corbusier, Ludwig Mies van der Rohe, Walter Gropius and other architects influenced by abstract movements following Cubism's break with singular perspectives had, according to Zevi, been going in the right direction.<sup>74</sup>

To strengthen his arguments for an architecture expressing and catalysing movement, Zevi used Albert Einstein's theories on how events are localized in both time and space. By assimilating Einstein's theories architecture could become 'open design that is constantly in process, invested with time consciousness, and unfinished'.<sup>75</sup> A first step, he thought, was to make all buildings asymmetrical. In Zevi's interpretation of Einstein space cannot be separated from physical objects –

<sup>67</sup> Heinrich Wölfflin, 'Prolegomena to a Psychology of Architecture', in Mallgrave and Ikonomou, *Empathy, Form, and Space*, 155.

<sup>68</sup> Zevi, *The Modern Language of Architecture*, 15–22.

<sup>69</sup> Zevi, *The Modern Language of Architecture*, 3. John Summerson's *The Classical Language of Architecture* was published in 1963.

<sup>70</sup> Zevi, *The Modern Language of Architecture*, 47–53.

<sup>71</sup> Tournikiotis, *The Historiography of Modern Architecture*, 77.

<sup>72</sup> Bruno Zevi, 'Hebraism and the Concept of Space-Time in Art', opening speech at the IX Congress of the Italian Jewish Communities, The Capitol, Protomoteca Hall, Rome, 9 June 1974, published in Oppenheimer Dean, *Bruno Zevi on Modern Architecture*, 156.

<sup>73</sup> Tournikiotis, *The Historiography of Modern Architecture*, 78–79.

<sup>74</sup> Zevi, *Architecture as Space*, 282 (note 10). A similar conclusion had been made by Giedion in *Space, Time, and Architecture*, published seven years before the original Italian version of *Architecture as Space*. Giedion suggests that the modernist architects, by interpreting Cubism's use of a simultaneous plurality of perspectives and by taking the automobile into account, had introduced 'a hitherto unknown interpenetration of inner and outer space [...] and of different levels [...] which has forced the incorporation of movement as an inseparable element of architecture'. Giedion, *Space, Time, and Architecture*, lvi.

<sup>75</sup> Zevi, *The Modern Language of Architecture*, 53.

they are not in space but spatially extended and therefore 'empty space' does not exist.<sup>76</sup> As a consequence, Zevi suggested the goal of architecture should not only be to dissolve the box but to delete it:

This leads to an architecture without buildings which, in essence, is the true objective of the modern architectural revolution. The purpose is to desecrate the building as a symbolic entity of power, as an absolute value, and to shift attention to the life that takes place in it and which, too often, is choked and strangled, muffled and repressed by the building box.<sup>77</sup>

Among others Rudolf Arnheim has been troubled by Zevi's polemics.<sup>78</sup> What Zevi did when declaring symmetrical architecture to be bad and asymmetrical architecture to be good was, according to Arnheim, to generalize a personal preference and reject the fact that the 'perceptual appearance of a building is a synthesis of qualities that vary in degree along a number of dimensional scales'.<sup>79</sup> Also Conrad Jameson, in a review of *The Modern Language of Architecture*, has argued that Zevi failed in his intentions to propose the purpose of modern architecture.<sup>80</sup> Similar to Arnheim, Jameson saw Zevi's wish to formulate an antipode to classicism as a confusing attempt to provide a clarification. Instead of being useful for someone who wants to understand and create modern architecture, Zevi's modern language appeared to Jameson as a destructive reaction against classicism.<sup>81</sup> The idea that asymmetrical designs are emancipating while classical symmetry is authoritarian revealed Zevi's madness, Jameson thought. However, he continued, the advantage of Zevi's extreme position was that it forced one to question if architecture can or should have any social purposes at all.<sup>82</sup> Although Zevi said that contemporary architects should reread history in order to 'write and speak the modern language of architecture',<sup>83</sup> in my opinion the truths Zevi presented could suffocate rather than catalyse the imagination of practising architects.

What, if anything, did Schmarsow say about how his theories should be assimilated by practising architects? Schmarsow believed that our minds aim to imitate the ideal forms of science, 'whereas the art of space, which executes form in a real material, also has to come to terms with the natural environment and the physical laws of reality'.<sup>84</sup> The difference between art and science, according to

<sup>76</sup> Bruno Zevi, 'Architecture and Einstein's Space-Time', speech held at the Museum of Modern Art, Tel-Aviv, 1979, in Oppenheimer Dean, *Bruno Zevi on Modern Architecture*, 186.

<sup>77</sup> Zevi, 'Architecture and Einstein's Space-Time', 186.

<sup>78</sup> Rudolf Arnheim, 'The Dimensions of Disagreement', *The Journal of Aesthetics and Art Criticism*, vol. 38, no. 1, autumn 1979, 15–20.

<sup>79</sup> Arnheim, 'The Dimensions of Disagreement', 19.

<sup>80</sup> Conrad Jameson, Review of *The Modern Language of Architecture* by Bruno Zevi, *Journal of the Society of Architectural Historians*, vol. 40, no. 1, March 1981, 80–82.

<sup>81</sup> Jameson, Review of *The Modern Language of Architecture* by Bruno Zevi, 80.

<sup>82</sup> Jameson, Review of *The Modern Language of Architecture* by Bruno Zevi, 82.

<sup>83</sup> Zevi, *The Modern Language of Architecture*, 230.

<sup>84</sup> Schmarsow, 'The Essence of Architectural Creation', 288.

Schmarsow, is that science describes (knowledge of) space in abstract models, while art makes something from it.<sup>85</sup> Schmarsow saw the person standing in, moving through and imagining space as the one able to change both the discourse and the built matter of architecture. As Paul Zucker has stated: 'Movement into depth becomes for Schmarsow identical with the creation of aesthetic space.'<sup>86</sup> This is a powerful active approach, with potential consequences for architectural practise. However, Zucker continued, the inner space of the human being got lost when Schmarsow's idea of an integration of inner and outer space became an 'architectural slogan' used by architects to say that a building's function or purpose was, from plan to façade, expressed in its form.<sup>87</sup>

Schmarsow's view on architecture was, according to Harry Francis Mallgrave and Eleftherios Ikonomou, affiliated with the beginnings of phenomenological psychology and with Edmund Husserl's idea of kinaesthetics as a fundamental aspect of space.<sup>88</sup> In a reflection on the history of 'the spatial sense of self'<sup>89</sup> commencing with a tribute to Husserl's follower Maurice Merleau-Ponty and his affirmation of human existence as embodied and spatial, Richard Etlin proposed that *Einfühlung* is a process of symbolization rather than one of mere physiological reactions.<sup>90</sup> Heinrich Wölfflin and Geoffrey Scott, according to Etlin, tied *Einfühlung* too close to the actual body and its movements and thereby underestimated the existential dimension of space, while Schmarsow's idea of space as a construct which is projected from within the human subject is valid both when he is present in a space and when he mentally projects himself into it.<sup>91</sup> Thus Schmarsow, in Etlin's interpretation, differed from his contemporaries by acknowledging an existential or transcendental dimension of space.

Schmarsow argued for the imagination as a condition for any creative making since only the human with bodily experiences of three-dimensional space is able to imagine and draw two-dimensional representations, and he stated that 'we become aware of the necessity of this process only when we see how it arises out of our own innermost nature'.<sup>92</sup> Adrian Forty has claimed that 'Schmarsow's spatial construct was unequivocally an effect of the mind, and was not to be confused with the actual geometric space found within buildings'; as soon as the concept of spatiality becomes a property of buildings it is undermined.<sup>93</sup>

<sup>85</sup> Schmarsow, 'The Essence of Architectural Creation', 287.

<sup>86</sup> Zucker, 'The Paradox of Architectural Theories', 9.

<sup>87</sup> Zucker, 'The Paradox of Architectural Theories', 9.

<sup>88</sup> Mallgrave and Ikonomou, *Empathy, Form and Space*, 65–66. Regarding Husserl's theory of kinesthesia, Mallgrave and Ikonomou (84, note 222) refer to his 'Ding und Raum' from 1907.

<sup>89</sup> Richard A. Etlin, 'Aesthetics and the Spatial Sense of Self', *The Journal of Aesthetics and Art Criticism*, vol. 56, no. 1, winter 1998, 1–19.

<sup>90</sup> Etlin, 'Aesthetics and the Spatial Sense of Self', 6–7.

<sup>91</sup> Etlin, 'Aesthetics and the Spatial Sense of Self', 7–8.

<sup>92</sup> Schmarsow, 'The Essence of Architectural Creation', 288.

<sup>93</sup> Adrian Forty, *Words and Buildings – A Vocabulary of Modern Architecture*, London: Thames & Hudson, paperback edition 2004 (first published in 2000), 264–265. Forty claims that Paul Frankl, with the schemes in *Principles of Architectural History* from 1914,

Still, Schmarsow was rather pragmatic. He thought imagination sparked by bodily experience could bridge mind and reality, and that when an individual has experienced space he can understand that its coordinates converge within him.<sup>94</sup> According to Schmarsow, it is not function or purpose that triggers form-making, it is 'imagination as an intimation of some desired achievement', or mental projection into space.<sup>95</sup> In my opinion, it is to imagine a projection into space the architect does when she creates new buildings. What could Schmarsow's thoughts on imagination mean for the layers in between embodied mind and building, namely the drawings, models and other means that architects use to represent architecture? How is space, the kernel which holds the parts of any igloo or cathedral together,<sup>96</sup> preserved in architectural representations? Schmarsow likened the architectural drawing with a score of a musical work, which enables the specialist to imagine an experience.<sup>97</sup> The drawing, I propose, may be understood as an interface, or an expression of imagination, between the ideal of the mind and the forces of reality.

### August Schmarsow, Bruno Zevi and the education of architects

Schmarsow himself was neither an architect nor an educator of architects, yet his ideas have had an impact on architects. At the beginning of the twentieth century there was an educational reaction against the dominating historicism of the previous century. An important example, referred to by Stanford Anderson, was when Peter Behrens in 1903 became the director of the *Kunstgewerbeschule* (The School of Arts and Crafts) in Düsseldorf, and chose to hire the art historian Wilhelm Niemeyer to teach architectural history.<sup>98</sup> According to Anderson, with the appointment of Niemeyer architectural history came to play a significant role within Behrens's innovative education. Influenced by his teacher August Schmarsow, Niemeyer introduced an approach to history implementing the concerns of 'scientific' art history (*Kunstwissenschaft*). This focused on the abstract fundamental aesthetic aspects such as space and form rather than any conventional stylistic discourse. I suggest that Niemeyer transferred to students of architecture what Schmarsow had been teaching within the discipline of architectural history. Was Schmarsow, by decreasing the importance of dividing history into stylistic periods, focusing instead on the abstract value of space, indirectly contributing to the scepticism directed towards architectural history that was common during the first half of the twentieth century?<sup>99</sup> Among the architects Niemeyer taught were Walter Gropius and Ludwig Mies van der Rohe, whom both later directed schools of architecture in the United

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was among the first historians to contribute to a reduction of the notion of spatiality to a concrete property of buildings.

<sup>94</sup> Schmarsow, 'The Essence of Architectural Creation', 286.

<sup>95</sup> Schmarsow, 'The Essence of Architectural Creation', 286.

<sup>96</sup> Schmarsow, 'The Essence of Architectural Creation', 284.

<sup>97</sup> Schmarsow, 'The Essence of Architectural Creation', 285.

<sup>98</sup> Stanford Anderson, 'Architectural History in Schools of Architecture', *Journal of the Society of Architectural Historians*, vol. 58, no. 3, September 1999, 282–290.

<sup>99</sup> Anthony Vidler discusses fluctuating historical interests in the introduction to *Histories of the Immediate Present*, 1-15.

States.<sup>100</sup> During Gropius's time at Harvard (1938–1952), history came to be seen as a 'danger to the student's creativity'.<sup>101</sup> Mies, from 1938 to 1958 the director of the Illinois Institute of Technology in Chicago (until 1940 the Armour Institute), promoted a teaching in architectural history that made the students aware of 'genuine architectural values',<sup>102</sup> yet in practise, it was Mies's own approach to architectural form that became the IIT students' main source of influence.<sup>103</sup>

Historians like Reyner Banham and Bruno Zevi held positions in architectural history at architecture schools during the 1940s and 1950s.<sup>104</sup> However, during the 1960s many schools of architecture still hired art historians to teach architectural history and their main concerns seldom included architectural practise.<sup>105</sup> The need for change in the teaching of architectural history and theory to architects was debated, for instance at the 1964 Cranbrook Seminar of the Association of Collegiate Schools of Architecture, titled 'The History, Theory, and Criticism of Architecture'. At this seminar, Bruno Zevi presented the paper 'History as a Method of Teaching Architecture'.<sup>106</sup> His 'advocacy of an operative architectural history and the virtual takeover of schools by historians did not precisely carry the day', according to Anderson.<sup>107</sup> Nonetheless Zevi's influence should not be underestimated; he was an important figure within twentieth-century architectural historiography. In 2014, in the *Radical Pedagogies* exhibition included in the fourteenth International Architectural Exhibition in Venice, Daria Ricchi stated that Zevi as an educator encouraged critical reinterpretation and not imitation of historical examples, and that his 'instrumental use of history [...] indicated a larger shift of the understanding of the discipline'.<sup>108</sup>

Zevi and Schmarsow, in different ways, proposed a return to the beginnings of architectural creation. While Schmarsow proposed that if spatiality could be seen as the core of architecture, past and future architecture would become related, yet he did not provide instructions on how this might be achieved. Zevi on the other hand, suggested concrete instructions for how students of architecture should learn from the past, recommending that studies of drawings from different stages of a design process could help uncover 'the genesis of an inspiration', a beginning.<sup>109</sup> It was time, he thought – after the modernist rejection of past techniques and expressions –

<sup>100</sup> Anderson, 'Architectural History in Schools of Architecture', 283.

<sup>101</sup> Anderson, 'Architectural History in Schools of Architecture', 283.

<sup>102</sup> Ludwig Mies van der Rohe in Anderson, 'Architectural History in Schools of Architecture', 283.

<sup>103</sup> Anderson, 'Architectural History in Schools of Architecture', 283.

<sup>104</sup> Vidler, *Histories of the Immediate Present*, 4-5.

<sup>105</sup> Anderson, 'Architectural History in Schools of Architecture', 284.

<sup>106</sup> Zevi, 'History as a Method of Teaching Architecture', in Marcus Whiffen, ed., *The History, Theory and Criticism of Architecture*, Papers from the 1964 AIA-ACSA Teacher Seminar, Cranbrook, Cambridge: The MIT Press, 1965, 11–21.

<sup>107</sup> Anderson, 'Architectural History in Schools of Architecture', 284.

<sup>108</sup> *Radical Pedagogies*, the fourteenth International Architectural Exhibition in Venice, 2014: <http://radical-pedagogies.com/search-cases/i11-istituto-universitario-architettura-venezia-iuav-universita-roma/>

<sup>109</sup> Zevi in Smith Pierce, 'Old Drawings for New Students', 59.



to again learn from old masters. Zucker described Wölfflin's and Schmarsow's models for understanding how architectural expressions change, and that these models differed from those of Gottfried Semper, Friedrich Schinkel and Karl Bötticher. The latter three understood form through categories such as material, technique and function, and their ideas were, according to Zucker, adopted by practising modernist architects, while the 'aesthetic qualities of space, volume, and form, and their visualization' as discussed by Wölfflin and Schmarsow largely became a theoretical concern.<sup>110</sup> In a review of *Architecture as Space*, Zucker stated that Zevi, in contrast to Giedion, accomplished to bridge the gaps between past and present, theory and practise, practical considerations and aesthetics.<sup>111</sup> In Zucker's view, Zevi was able to let the pragmatism of Semper meet the aesthetics of Wölfflin.

As stated previously, Schmarsow recognized that a work of architecture will provoke different associations and feelings in us than it did in people living in another era. In contrast, Zevi stated that by using the architect's instruments to analyse architectural history, the student of architecture could both demonstrate the reasons for design decisions of a Wright or Michelangelo and create new buildings of a critical nature.<sup>112</sup> Zevi insisted, that writing and speaking, the instruments commonly used to teach courses in architectural history, were not good enough and that architectural history had to be taught with the architect's instruments. Once this was achieved, he said, the new and scientific historians would be able to teach 'Wright better than Wright'.<sup>113</sup> Even Gropius, Zevi assured his reader, would acclaim of this method of teaching history. Manfredo Tafuri, though, thought that such an operative criticism was impossible because an individual living now could never fully understand the reasons for design choices made in history.<sup>114</sup> Tafuri has called the 'organic architecture' that Zevi through writing his history of the Modern Movement promoted as the architecture for the future, a myth; and myth, according to him, 'is always against history'.<sup>115</sup>

Like Zevi, Giedion had an interest in making spatiality and history fundamental aspects of architectural education. Giedion discussed the teaching of architectural history to students of architecture in the article 'History and the Architect' from 1957.<sup>116</sup> He proposed that training in 'the sense for space' should be the foundation of a contemporary teaching of architectural history,<sup>117</sup> based on the assumption that history no longer can be seen as a static process. Building on the

<sup>110</sup> Zucker, 'The Paradox of Architectural Theories', 9.

<sup>111</sup> Paul Zucker, Review of *Architecture as Space. How to Look at Architecture* by Bruno Zevi, *The Journal of Aesthetics and Art Criticism*, vol. 16, no. 2, December 1957, 283.

<sup>112</sup> Zevi, 'History as a Method of Teaching Architecture', 15–19.

<sup>113</sup> Zevi, 'History as a Method of Teaching Architecture', 19.

<sup>114</sup> Manfredo Tafuri, *Theories and History of Architecture*, New York: Harper & Row, 1980, 106–107. Translation of the fourth edition of *Teorie e storia dell'architettura*, from 1976 (first edition: 1968).

<sup>115</sup> Tafuri, *Theories and History of Architecture*, 154–156.

<sup>116</sup> Giedion, 'History and the Architect', 14–16.

<sup>117</sup> Giedion, 'History and the Architect', 15.

ideas presented by Burckhardt in *Reflections on History*,<sup>118</sup> Giedion claimed that history becomes a continuum if one sees it as starting from Man.<sup>119</sup> Moreover; he thought that the historian could find inspiration in the same 'creative forces' as the artist.<sup>120</sup> As a consequence, history should be based on method rather than facts. Referring to Wölfflin and Schmarsow among others, Giedion proclaimed the concept of space as central to the development of architecture and architectural skills. History, he said, should walk 'beside the student as a friendly guide, liberating but not inhibiting his spatial imagination'.<sup>121</sup>

Tafuri's *Theories and History of Architecture* from 1968 can be read as a criticism directed towards historians like Giedion and Zevi, as Tafuri wanted 'to protect history from its complicity with practice'.<sup>122</sup> Tafuri discussed Zevi's *Storia dell'architettura moderna*<sup>123</sup> and Giedion's *Space, Time, and Architecture* as architectural projects, because what they presented as true historiographies were clearly affected by and directed towards the societies and times they worked within, pointing out future paths. Tafuri questioned Zevi's idea of developing criticism through the instruments of architecture and called his historiography an architectural project rather than an unbiased investigation.<sup>124</sup> The projects of Giedion and Zevi were, in Tafuri's terms, operative criticisms, which became ideological because they substituted 'ready-made judgments of value [...] for analytical rigour'.<sup>125</sup> Giedion's 'historical forcing', Tafuri stated, ignored the 'unstable dialectic in history',<sup>126</sup> and such historiographies, he continued, ignore critical cuts in favour of stories of continuous progress, ignore the specificity of individual works in order to bring forth a general structure. Nietzsche was also troubled to see historians create a distance between history and actual remains of past events. If the gap between how things should be and how they actually are or have been grows, historiography becomes, as Mark Jarzombek has put it, 'the site of an intellectual functionalism that banishes unwanted realities in the name of a clarified field of operation'.<sup>127</sup> Tafuri argued that if one tries to connect history and architectural production by using 'the historical example as a didactic and moral instrument', as among others Zevi and Giedion did, one presents history as less complex than it is.<sup>128</sup>

<sup>118</sup> Jacob Burckhardt's *Weltgeschichtliche Betrachtungen* from 1905 were translated into English and published as *Force and Freedom: Reflections on History* in 1943.

<sup>119</sup> Giedion, 'History and the Architect', 15.

<sup>120</sup> Giedion, 'History and the Architect', 15.

<sup>121</sup> Giedion, 'History and the Architect', 16.

<sup>122</sup> Vidler, *Histories of the Immediate Present*, 13. Also Henri Lefebvre criticizes Zevi and Giedion for mixing up history with their own strategies, see Henri Lefebvre, *The Production of Space*, Malden, Oxford and Victoria: Blackwell Publishing, 1991, 126–128. Originally published in 1974, as *La production de l'espace*.

<sup>123</sup> Bruno Zevi, *Storia dell'architettura moderna*, Torino: Giulio Einaudi editore, 1950 and 1975.

<sup>124</sup> Tafuri, *Theories and History of Architecture*, 156.

<sup>125</sup> Tafuri, *Theories and History of Architecture*, 153.

<sup>126</sup> Tafuri, *Theories and History of Architecture*, 152.

<sup>127</sup> Mark Jarzombek, 'A Prolegomena to Critical Historiography', *Journal of Architectural Education*, vol. 52, no. 4, 1999, 202.

<sup>128</sup> Tafuri, *Theories and History of Architecture*, 155.

### Acknowledging uncertainty

Can architectural history be approached and communicated without appearing less complex than it is? In 'What Can Historians Do for Architects?',<sup>129</sup> written as a response to the reintroduction of historical studies for architects suggested by Zevi in *Architettura e Storiografia*,<sup>130</sup> the art historian George Kubler introduced some ideas on how the historian can help the architect keep the crucial uncertainty of his design process. Rather than pointing out good or bad methods and built examples, he suggested that the historian's habit of relating physical phenomena – things – to time, may allow him to help architects unlearn some of their fixed ideas about architecture.<sup>131</sup> An architectural work, in Kubler's view, is never really finished; it is changed when first made, when used and when rebuilt. The 'conditions of the problem are changed during the solution'.<sup>132</sup> Rather than seeing his design as an end product, the architect should see it as a 'mixture of unrealized possibilities and of fossil matter'.<sup>133</sup> With this follows the dismissal of the myth of individual authorship, which has been enhanced through historiographies like Zevi's. Kubler's reply to Zevi appears as a constructive critique, loosening Zevi's paradoxical combination of an open process with confined instructions.

The architectural historian Nancy Stieber proposes injections of uncertainty into her discipline and calls for an architectural history that includes both matter and movement.<sup>134</sup> Stieber describes how the discipline has been influenced by 'methodological challenges' posed by post-structuralist thinkers.<sup>135</sup> As a consequence, she says, an interest in social and cultural processes behind buildings and architects rather than the buildings and architects *per se* has come to prevail.<sup>136</sup> However relevant such processes are, she continues, they have tended to be presented as grand narratives or theorized empirically untested ideas.<sup>137</sup> Stieber also notes that the gaze towards the reality of built space from the past has remained passive and generalizing. Was it not this problem Zevi wanted to address, when he said the content of architecture is the men who live in it? According to Stieber a historiography like Zevi's, although aiming to put humans at the centre of architectural space, remains passive.<sup>138</sup> Architectural history could instead, she

<sup>129</sup> George A. Kubler, 'What Can Historians Do for Architects?', *Perspecta*, vol. 9/10, 1965, 299–302.

<sup>130</sup> Kubler, 'What Can Historians Do for Architects?', 300. A part of *Architettura e storiografia* is translated in *The Modern Language of Architecture*, see note 14 above.

<sup>131</sup> Kubler, 'What Can Historians Do for Architects?', 302.

<sup>132</sup> Kubler, 'What Can Historians Do for Architects?', 302.

<sup>133</sup> Kubler, 'What Can Historians Do for Architects?', 302.

<sup>134</sup> Nancy Stieber, 'Space, time, and architectural history', in Dana Arnold, Elvan Altan Ergut and Belgin Turan Özkaya, eds, *Rethinking Architectural Historiography*, London and New York: Routledge, 2006, 171–182.

<sup>135</sup> Stieber, 'Space, time, and architectural history', 172.

<sup>136</sup> Stieber, 'Space, time, and architectural history', 172.

<sup>137</sup> Stieber, 'Space, time, and architectural history', 176.

<sup>138</sup> Stieber, 'Space, time, and architectural history', 174.

proposes, deepen the understanding of both theory and the built environment by providing analyses of concrete examples and making empirical tests of theories, and she asks:

So what happens when the passivity of "symbolize, represent, and reflect" is replaced with active verbs such as "transform, perform, inform"? What happens when architectural history begins to look at those spaces that are indeterminate, rather than looking only at the places of order, or find the indeterminacy in places of order as they are used, distorted, reinvested with meaning?<sup>139</sup>

The verbs 'transform, perform, inform' imply unpredictable movements between action and reaction, concept and matter, theory and making, imagination and representation. We have seen among others Nietzsche, Scott and Tafuri advise the historian to challenge prejudices which may reduce his capacity to interpret history, and thereafter strive to separate every thing or phenomena from its seemingly given purpose. Still, no embodied human being can know whether there is any pure beginning, or any essence of architecture – the uncertain must be included in any investigation, spatial or otherwise, of architectural history. In contrast, Zevi's proposal set predetermined goals for educating architects to create a new society where only certain architectural compositions would be allowed. In my opinion, it is their approach to unpredictability that is the fundamental difference between Schmarsow's and Zevi's descriptions of the intertwined processes of perception, analysis and making of and in architectural space. While Zevi believes himself to know what a good space is, Schmarsow leaves room for changes of matter and meaning.

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<sup>139</sup> Stieber, 'Space, time, and architectural history', 178.