

# Wölfflin, Architecture and the Problem of *Stilwandlung*<sup>1</sup>

Alina Payne

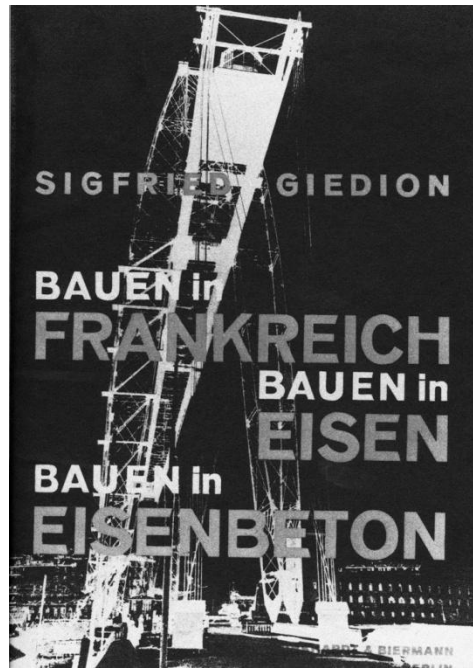


Figure 1 Sigfried Giedion, Negative for Book Cover, *Bauen in Frankreich, Bauen in Eisen, Bauen in Eisen Beton*, 1928.

In his *Space, Time and Architecture* (published in 1941 but read as the Norton Lectures in 1938/39 at Harvard) Sigfried Giedion developed what was to become the orthodoxy of modernist architecture.<sup>2</sup> What he was looking for, he claimed in the introduction, were the origins of the new modern style, the conditions which gave it rise and that he intuited came from the mass of anonymous industrial and engineering forms that the 19<sup>th</sup> century had produced. [fig. 1] He insisted that it was the transition into the forms of the 20<sup>th</sup> century that attracted him and gave him the insights into what the essence of this new style was. He went on to locate his scholarship—his intellectual debts—and he acknowledged the profound influence of two Swiss historians: Jacob Burckhardt and Heinrich Wölfflin, his *Doktorvater*. What Giedion credited his two mentors with—one close-by, the other twice

<sup>1</sup> This essay developed from a paper presented at the conference 'L'idea di stile', Cortona 2007. I am grateful to Sabine Frommel and Maurizio Ghelardi for agreeing to my essay also being published in this journal. For the volume arising from the conference see *L'idea di stile*, S. Frommel et al eds., Rome: Campisano, (forthcoming).

<sup>2</sup> Sigfried Giedion, *Space, Time and Architecture*, Cambridge, Mass., 1941.

removed—were essentially two ideas. One was the conception of *Zeitgefühl* that he owed Wölfflin; the other, was the concept of culture that he absorbed from Burckhardt who ‘first showed how a period should be treated in its entirety, with regard not only for its painting, sculpture, and architecture but for the social institutions of its daily life as well.’<sup>3</sup> However, Giedion continued, in addition to the idea of *Zeitgefühl*, Wölfflin had also led him to a problem that would fascinate him thereafter, the problem of ‘how our epoch had been formed, where the roots of present-day thought lay buried’—in other words, to an archaeological excavation of the first glimmers of the new style.<sup>4</sup> And to reach this archaeological layer he had turned to Wölfflin whose life-long interest and major contribution, he argued, were the process of *Stilwandlung* (transition of styles) that he accessed by contrasting epochs the better ‘to grasp the spirit’ of each.<sup>5</sup>

Starting with Giedion may seem like backing into the topic. Yet he is an interesting witness, a particularly revealing instance of reception: because he *is* Giedion, that is, one of the chief proselytizers of modernism in architecture, and because, as it seems, he could use the tools that Wölfflin offered him, attentively and carefully, and was not simply paying him a polite ‘filial’ lip-service. This connection between a famous critic and a famous historian, one working on modernism the other on the early modern period, raises the question then as to *why* and *how* Wölfflin could be useful to Giedion, and, more importantly, what this relevance tells us *about* Wölfflin. As this essay will argue, such an unlikely link was possible precisely because Wölfflin’s own starting point for his reading of *Stilwandlung* had been architecture and because this particular starting point had played a determining role for his reading of art-making in general. Indeed, as will become evident, Wölfflin associated *Stilwandlung* with architecture because its discourse offered what he needed, and that was so because at the time it interacted with a host of human-based sciences that could be productively blended with the theories from philosophy and psychology that he was working with.

### **From *Prologomena* to *Grundbegriffe***

Wölfflin’s own testimony suggests that *Stilwandlung* was a fundamental theme for him from the very first. ‘Why did the Renaissance end?’<sup>6</sup> This simple question was the starting point for his *Habilitationsschrift* of 1888, *Renaissance und Barock*, and what he conceived as the inaugural move in his engagement with the history of art rather than the history of artists. His object was clear: not to describe the development of

<sup>3</sup> *Zeitgefühl* literally means ‘feeling of the time’ or ‘period feeling’ though neither formulation is in use in English. Giedion, *Space, Time and Architecture*, 2.

<sup>4</sup> Ibid.

<sup>5</sup> On the origins of the dialectical method for Wölfflin see Joan Goldhammer Hart, ‘Heinrich Wölfflin. A Biography’. PhD Dissertation, University of California, Berkeley, 1980, 139.

<sup>6</sup> ‘Warum hat die Renaissance aufgehört?’ Heinrich Wölfflin, *Renaissance und Barock*, Basel/Stuttgart, 1965, 57.

the Baroque, but to understand its origin.<sup>7</sup> As it turned out, this first question produced a life-long search that lent a remarkable unity to Wölfflin's oeuvre. *Renaissance und Barock* focused on the transition from the Renaissance to the Baroque in Roman architecture (as his test case); *Klassische Kunst* (1899) turned to the transition (or *Stilwandlung*) from early Renaissance to High Renaissance in painting; *Die Kunst Albrecht Dürer's* (1905) explored the transition from Gothic to Renaissance (for which he turned to Germany the better to observe this shift); finally, in *Kunsthistorische Grundbegriffe* (1915) he pulled together the findings of *Klassische Kunst* with those of *Renaissance und Barock* and obtained a book that looked at all the media as they transitioned from the Renaissance to the Baroque, 'following step by step the rise of the modern way of seeing'.<sup>8</sup> His last major contribution to the discipline, *Grundbegriffe* was also his most self-reflective work where he explained his life-long interest in style (or manners of seeing) as a reaction to the contemporary coexistence (not to say confusion) of artistic styles.<sup>9</sup> Indeed, he felt that his mission (and that of art history) was to explain and overcome this condition.<sup>10</sup>

Wölfflin's first work, his doctoral dissertation 'Prolegomena zu einer Psychologie der Architektur' of 1886, was admittedly not about stylistic transition (*Stilwandlung*), yet it provided the background for all the work that followed. Here, outside of a specific time period or style, literally outside history, Wölfflin formulated for the first time his understanding of the three-way relationship between the artwork, its production and its reception. His test case was architecture. And, as is well-known, on the basis of his reading of empathy theory—a blend of ideas from his Munich teacher Johannes Volkelt, but also Hermann Lotze, Robert Vischer, Helmholtz and others—he posited the body as the connecting hinge between the three.<sup>11</sup> In his view 'corporeal [bodily] forms can only be characteristic because we have a body ourselves,' and it is through this bodily link that architecture acquires meaning.<sup>12</sup> Not apprehended directly, he went on, but through 'bodily empathy' (*körperliches Miterleben*), that is, psychologically.<sup>13</sup> Having described how each architectural component of the classical vocabulary elicits such

<sup>7</sup> 'Unsere Absicht geht nicht auf eine Beschreibung dieser ganzen Entwicklung, sondern auf eine Begreifung des Ursprungs: was wird aus der Renaissance?' Ibid., 3.

<sup>8</sup> 'Schritt für Schritt die Entstehung des modernen Sehens verfolgt.' Heinrich Wölfflin, *Kunsthistorische Grundbegriffe. Das Problem der Stilentwicklung in der neueren Kunst*, Munich, 1920, 1<sup>st</sup> ed. 1915, 1.

<sup>9</sup> 'Nichts bezeichnet eindrücklicher den Gegensatz alter Kunst und der Kunst von heute als die Einheitlichkeit der Sehform dort und die Vielfältigkeit der Sehform hier.' Ibid., Vorwort.

<sup>10</sup> 'wenigstens den Begriff eines ... einheitlichen Sehens lebendig zu erhalten, das verwirrende Durcheinander zu überwinden'. Ibid.

<sup>11</sup> On Wölfflin's relationship to Volkelt and his reading of empathy theory see Hart, 'Wölfflin', 65 and Harry Mallgrave and Eleftherios Ikonou eds, *Empathy, Form, and Space. Problems in German Aesthetics 1873-1893*, Los Angeles, 1994.

<sup>12</sup> 'körperliche Formen können charakteristisch sein nur dadurch dass wir selbst einen Körper haben.' Heinrich Wölfflin, 'Prolegomena zu einer Psychologie der Architektur', in J. Gantner ed, *Kleine Schriften*, Basel, 1946, 13-47.

<sup>13</sup> 'Unwillkürlich beseelen wir jedes Ding. Das ist ein uralter Trieb des Menschen.' Ibid., 15.

a psychological reaction Wölfflin could then enlarge his claim to address style more generally. In his view architectural style is the reflection of man's deportment and movement, and for that reason arises first in 'costume', the clothes that determine the body's range of movements.<sup>14</sup> And, footnoting the history of costume literature that had been growing apace in the nineteenth-century, he went on to make his now famous analogy between Gothic architecture and the Gothic shoe: 'The human foot points forward but does that show in the blunt outline in which it terminates? No. The Gothic age was troubled by this lack of the precise expression of a will, and so it devised a shoe with a long pointed toe (the crakow appears in the twelfth century).'<sup>15</sup> [fig. 2]



Figure 2 Personnage en habit de voyage, from Eugène-Emmanuel Viollet-le-Duc, *Dictionnaire raisonné du mobilier français de l'époque carlovingienne à la renaissance*, Paris, 1868-75.

However, by 1888 when Wölfflin turned definitively to art history for his Habilitation his issue had become *Stilwandlung* and his question: why do styles change? Indeed the book's title and subtitles of the chapters are unambiguous and proclaim this interest.<sup>16</sup> Once again he turned to architecture. Clearly the book was a response to both Cornelius Gurlitt's recent work on the Baroque (*Geschichte des Barockstils in Italien*, 1887), but even more so to Adolf Göller's *Zur Aesthetik der*

<sup>14</sup> 'Ein architektonischer Stil gibt die Haltung und Bewegung der Menschen seiner Zeit wieder. Im Kostüm kommt zuerst die Art zum Ausdruck, wie man sich halten und bewegen will, und es ist nicht schwer zu zeigen, dass die Architektur mit dem Zeikostüm übereinstimmt.' Ibid., 44.

<sup>15</sup> His source is Hermann Weiss's *Kostümkunde* (1878). 'Der menschliche Fuss hat eine Richtung nach vorn; aber tritt das in der stumpfen Linie, in der er aufhört, hervor? Nein. Es war der Gotik unleidlich, hier nicht den exakten Ausdruck des Willens zu finden, und so liess sie den Schuh in spitzem Schnabel auslaufen. (die Schnabelshuhe erscheinen im 12. Jahrhundert).' Ibid., 44-5.

<sup>16</sup> *Renaissance und Barock*; Part I is titled 'Das Wesen der Stilwandlung' and Part II 'Die Gründe der Stilwandlung'.

*Architektur* of 1887 and his *Entstehung der architektonischen Stilformen* of 1888. In a way it was also a response to Burckhardt. Although Burckhardt had published much on the Renaissance, its edges—the transition from medieval art on the one hand, and to the Baroque on the other—had been left uncharted. Even the definition of the Renaissance itself had been left pending, since, as Wölfflin reflected towards the end of his life, it was difficult to find in Burckhardt an actual definition of the Renaissance style.<sup>17</sup>

Wölfflin's answer in *Renaissance und Barock* started where the 'Prologomena' left off, with the body. In his view style and corporeal presence, deportment and habits are tightly connected.<sup>18</sup> And he introduced a clutch of terms that would haunt scholarly writing for decades to come—*Formgefühl* (feeling for form), *Formphantasie* (formal imagination), *Lebensgefühl* (life spirit/feeling)—and that expressed the connection between body and artistic form. He had already made the point in the 'Prologomena' and he repeats it almost verbatim: 'We judge every object by analogy with our own bodies.'<sup>19</sup> Since in his view architecture, as 'an art of corporeal masses can only relate to man as a corporeal being' his conclusion is adamant: architecture represents the 'life-spirit of an epoch'.<sup>20</sup> Having stated once again that costume, the outer layer most closely connected to the body, distils the elements of an upcoming style Wölfflin went on once again to the Gothic shoe: 'What, first of all, determines the artist's creative attitude to form? It has been said to be the character of the age he lives in; for the Gothic period, for instance, feudalism, scholasticism, the life of the spirit. But we still have to find the path that leads from the cell of the scholar to the mason's yard.'<sup>21</sup> His answer—the path—is the human body, 'the Gothic shoe'.

But most important is the connection he makes between body, costume, and the objects of the decorative arts (*Kunstgewerbe*) when it comes to *Stilwandlung*. This too he had adumbrated in the *Prologomena* but he developed it further in *Renaissance und Barock*: the pulse beat of the temper of a people 'must be gauged not in the heavy and ponderous forms of architecture, but in the less monumental decorative arts; it is in them that formal sensibility finds an immediate and unchecked outlet,

<sup>17</sup> 'man sucht umsonsten nach einer Definierung dessen, was nun Renaissancestil sei... Auch im *Cicerone* ist es nicht anders gehalten. Vielleicht hängt damit die besondere Kraft der Empfindung für das Einzelwerk zusammen.' Heinrich Wölfflin, 'Jacob Burckhardt', in *Gedanken zur Kunstgeschichte*, Basel, 1941, 135.

<sup>18</sup> 'Um Stil zu erklären... gehe ich von der sich unmittelbar Darbietende: an die Körperbildung und die Körperhaltung in der darstellenden Kunst, .. Reduktion der Stilformen auf der menschlichen Gestalt.' Wölfflin, *Renaissance und Barock*, 58.

<sup>19</sup> Heinrich Wölfflin, *Renaissance and Baroque*, trans. Kathrin Simon, Ithaca, NY, 1964, 77. 'Jeden Gegenstand beurteilen wir nach Analogie unseres Körpers.' Wölfflin, *Renaissance und Barock*, 56. And he continues: 'Und nun ist klar, dass sie [die Architektur] als Kunst körperlichen Massen nur auf den Menschen als körperliches Wesen Bezug nehmen kann.' *Ibid.*

<sup>20</sup> *Ibid.*, 57.

<sup>21</sup> Wölfflin, *Renaissance and Baroque*, 77. 'Den nächsten Ausdruck findet die Art, wie man sich halten und bewegen will, im Kostüm.' Wölfflin, *Renaissance und Barock*, 57.

and in them that the renewal takes place.’<sup>22</sup> In his ‘Prologomena’ he had used another turn of phrase: ‘Here the feeling for form satisfies itself in the purest way, and it is here that the origin of a new style must be sought.’<sup>23</sup> In an entry from his diary from December 8, 1888 Wölfflin went even further and argued that the feeling for form is revealed in all objects that the body surrounds itself with—whether artistic or not—from architecture, furniture, books, cars, objects (fork, knife, plates etc.) to clothing, in other words, in the anonymous, secondary, unselfconscious part of object making.<sup>24</sup> The connection heralds both Riegl’s definition of *Kunstwollen* and Le Corbusier’s dramatic juxtaposition of a triglyph from the Parthenon and the latest Delage car model in his *Vers une architecture* (1924).<sup>25</sup>

In 1899, in *Klassische Kunst*, Wölfflin restated the connection between the body and the emergence of a new style with even greater assurance. This time he argued that not only the objects and clothes, the large and ‘small’ architecture, that is, the vicinity of the body experiences a transformation when a new style arises, but that the feeling for the body itself will have changed and that it is here that the core of a new style must be sought.<sup>26</sup> In his view this new feeling for the body could be best identified in the representation of the body in art and he adjusted his *Stilwandlung* theory accordingly: the new *Körpergefühl* (body-sense) produces a new *Bildform* (his new term) rather than new small objects (which it predates). Thus he could conclude: ‘The pictures produced in any one generation have, considered as a whole, as individual a pulse-beat as the works of any one master. Quite independently of the subject depicted...’<sup>27</sup> Like some of his contemporaries—Göller,

<sup>22</sup> Wölfflin, *Renaissance and Baroque*, 79. ‘Den Pulsschlag des *Volksgemüts* muss man dann anderswo beobachten: nicht in den grossen, schwerbeweglichen Formen der Baukunst, sondern in den kleineren dekorativen Künsten. Hier befriedigt sich das Formgefühl ungehemmt und unmittelbar und von hier wird man dann auch die Spuren einer Erneuerung des Stils vermutlich immer zuerst entdecken.’ Wölfflin, *Renaissance und Barock*, 58.

<sup>23</sup> ‘Hier befriedigt sich das Formgefühl in reinster Weise.’ [emphasis in the text] Wölfflin, ‘Prologomena’, 46.

<sup>24</sup> Meinhold Lurz, *Heinrich Wölfflin. Biographie einer Kunsttheorie*, Darmstadt, 1981, 316.

<sup>25</sup> ‘Architektur und Kunstgewerbe offenbaren die leitenden Gesetze des Kunstwollens oftmals in nahezu mathematischer Reinheit.’ Alois Riegl, *Spätromische Kunstindustrie*, Darmstadt, 1964, 19. The idea went back to Semper: ‘die Grundgesetze des Stiles in den technischen Künsten identisch sind mit denjenigen, die in der Architektur walten, dass diese Grundsätze dort in ihren einfachsten und klarsten Ausdrücken hervortreten, dass sie an ihnen zuerst sich feststellen und entwickelten.’ Gottfried Semper, *Der Stil in den technischen und tektonischen Künsten*, 2 vols. Munich, 1878; (1<sup>st</sup> ed., 1860-63) vol. 1, 7.

<sup>26</sup> ‘Wenn man sagt, es sei ein neuer Stil emporgekommen, so denkt man immer zuerst an eine Umformung der tektonischen Dinge. Sieht man aber näher zu, so ist es nicht nur die Umgebung des Menschen, die grosse und kleine Architektur, nicht nur sein Gerät und seine Kleidung, die eine Wandlung durchgemacht haben, der Mensch selbst nach seiner Körperlichkeit ist ein anderer geworden und eben in der neuen Empfindung seines Körpers und in der neuen Art ihn zu tragen und zu bewegen, steckt der eigentliche Kern eines Stiles.’ Heinrich Wölfflin, *Die Klassische Kunst. Eine Einführung in die italienische Renaissance*, Munich, 1899, 216.

<sup>27</sup> ‘Nicht nur die Bilder eines einzelnen Meisters, auch die Bilder einer Generation in ihrer Gesamtheit haben ihren bestimmten Pulsschlag. Ganz abgesehen vom Inhalt der Darstellung.’ *Ibid.*, 229. English translation Heinrich Wölfflin, *Classic Art. An Introduction to the Italian Renaissance*, trans. Peter and Linda Murray, London, 1994, 252.

Gurlitt, Riegl and the theorists of ornament—Wölfflin edges here towards abstraction and his interest in ornament and objects of daily use (all devoid of narrative content) certainly confirm this direction.

The shift towards the eye and the image is clearly a result of his meeting with Adolf von Hildebrand in 1889, and he acknowledges it in the Introduction. Under the influence of *Das Problem der Form* (1893), what he seeks now are ‘formal elements which cannot be deduced from the spirit of the age.’<sup>28</sup> His interest in the evolution of vision outside of cultural determinants is ultimately also the break with Burckhardt. Nevertheless the *Bildform* is active in objects as well and encompasses all media: style lies in a feeling of the body which emanates outwards from clothing and the objects it handles all the way to architecture. His final definition of architecture as an ‘outward projection of the body and of the body-sense just like clothing’ is also perhaps the most radical for the period.<sup>29</sup> The revolutionary equation between architecture and textiles proposed by Gottfried Semper (*Der Stil*, 1860-2) here turns into an equation between architecture and clothes.

In 1915, in *Grundbegriffe*, Wölfflin returned to the themes from *Renaissance und Barock* but absorbed the idea of *Bildform* into them, as he now brought all the visual arts together. The body’s vicinity (*Umgebung*) and deportment (*Haltung*) are no longer the originators of style change; the eye and ways of seeing are its first and last location—‘optical possibilities’ as he calls them. Architecture is still part of his argument, as is ‘the small-scale world (Kleinwelt) of furniture and objects/tools’. The idea of this *Kleinwelt* as symptomatic of style change leads him to the detail in painting: to the nostril, to the drapery fold as key sites for shifts in style.<sup>30</sup> He says it all when he describes Hobbema: ‘all the essentials of the sense of form exist even in the smallest fragment.’<sup>31</sup>

In fact, what Wölfflin does is to take the architectural detail which he had elevated to a symptom of *Stilwandlung* in *Renaissance und Barock* and merges it with the painting detail as the artist’s unselfconscious ‘signature’ in the manner of Giovanni Morelli, the father of connoisseurship. Both details are essentially abstract patterns that recur and reveal the decorative schema of the age.<sup>32</sup> Indeed, it is here that he comes closest to defining abstraction: ‘Pictorial imitation developed from decoration—the design as representation once arose from the ornament—and the

<sup>28</sup> Ibid., 288. ‘formale Momente die sich der Stimmung der Zeit nicht ableiten lassen.’ Wölfflin, *Klassische Kunst*, 276. Hildebrand was in the process of writing his own *Das Problem der Form* (1893). However, influence was mutual as Hildebrand had used Wölfflin’s ‘Prologomena’ to develop his concept of vision. Hart, ‘Wölfflin’, 245.

<sup>29</sup> ‘Auch sie [Architektur] ist ja wie die Kleidung eine Projektion des Menschen und seines Körpergefühls nach aussen.’ Ibid., 227.

<sup>30</sup> ‘In der Zeichnung eines blossen Nasenflügels müsste man schon das Wesentliche des Stilcharakters erkennen.’ Wölfflin, *Grundbegriffe*, 3. ‘Eine ganz besonders reiche Ausbeute bietet dem Formpsychologen das stilisierte Gefält in diesem Zeitalter.’ Ibid.

<sup>31</sup> ‘Alles Wesentliche der Formempfindung ist schon im kleinsten Bruchteil vorhanden.’ Ibid., 6. English translation, 7.

<sup>32</sup> For Wölfflin’s use of Morelli see Lurz, *Heinrich Wölfflin*, 316.

after-effects of this relation have affected the whole of art history.’ And he concludes that the history of painting is not somewhat but fundamentally the history of decoration.<sup>33</sup> What Wölfflin is dealing with is the abstract aspect of art and it is precisely this abstraction that attracted him to architecture in the first place for it is this abstraction that allows it to manifest a new *Lebensideal*. But why the ways of seeing change from one period to another is not broached any more in *Grundbegriffe*.

### Style, Architecture and Objects

Having summarized the evolution of Wölfflin’s concept of *Stilwandlung*, the real question to pose is where are his ideas coming from? And does the origin of Wölfflin’s ideas have an impact on the format they take in his thought? Physiological psychology and *Empfindung* theory are the most frequently adduced sources for Wölfflin—Lotze, Volkelt, Vischer, but also Wundt, Lipps, and later the influence of Hildebrand and Fiedler.<sup>34</sup> However, what has not been discussed is that it is in the broader discourse around architecture that he finds the richest new ideas and that it is for this reason that he starts with architecture and finds it the most obvious location of insight into style change. And, to close the loop started at the beginning, it is also because of this initial orientation towards architecture then that the translation from Wölfflin to Giedion can happen so easily and so significantly.

Indeed, it was with reference to architecture that the broader question of the appropriate style for the nineteenth-century came up most often and most publicly.<sup>35</sup> In Germany style was a *cause célèbre* from Heinrich Hübsch’s ‘In welchem Stile sollen wir bauen?’ (In what style should we build) of 1821 and the style debates around the new Reichstag and the endless books on style and eventual consensus that the Renaissance was the national style for a united Germany maintained this topic in the forefront of professional news.<sup>36</sup> As result, associating *Stilwandlung* with architecture was almost inevitable. But the architecture discourse still had more to offer Wölfflin. His entry point into art history—the ‘Prologomena’ of 1886—was by way of responding to Adolf Göller’s books on style change in architecture.<sup>37</sup> In these books Göller famously proposed the theory of the ‘blunting of the nerves’ (*Abstumpfung der Nerven*) and of the ‘fatigue of the feeling for form’ (*Ermüdung des*

<sup>33</sup> ‘Die bildliche Imitation hat sich aus der Dekoration entwickelt—die Zeichnung als Darstellung ist einst aus dem Ornament hervorgegangen—und dieses Verhältnis wirkt durch die ganze Kunstgeschichte nach. Die Geschichte der Malerei ist nicht nur nebenbei, sondern ganz wesentlich auch eine Geschichte der Dekoration.’ Wölfflin, *Grundbegriffe*, 248.

<sup>34</sup> See Hart, ‘Heinrich Wölfflin’; Mallgrave and Ikonomou, eds, *Empathy, Form and Space*; Lurz, *Wölfflin*.

<sup>35</sup> See for example the ‘Battle of Styles’ in England. For a general reading of the period issues see Barry Bergdoll, *European Architecture 1750-1890*, New York, 2000.

<sup>36</sup> See Michael Lewis, *Politics of the German Gothic Revival*, New York, 1993; Wolfgang Herrmann ed. *In What Style Should We Build?*, Santa Monica, 1992; Ingolf Bauer, ‘Das Bayerisches Nationalmuseum und die ‘Heimatkunst’’, in I. Bauer, ed. *Das Bayerisches Nationalmuseum*, Munich, 2000, 233-50.

<sup>37</sup> Adolf Göller, *Die Entstehung der architektonischen Stilformen*, Stuttgart, 1888 and Idem, *Zur Aesthetik der Architektur*, Stuttgart, 1887.



*Formgefühls*) as principal causes of *Stilwandlung*. Of course, as an architect and professor at the Polytechnikum in Stuttgart he, like so many architects, also addressed the then raging debate on historicism. And it is to his principal chapter 'Origins of the changes in style in architecture', which he gave first as a public lecture (*Festrede*) in 1887, that Wölfflin responded to with his own chapter 'The Sources of Style Change' in *Renaissance und Barock*.

Even more pertinently, Göller's focus was the *Formgefühl* which he connected to image memory (*Gedächtnisbild*). Indeed, for Göller the memory of the image produced the *Formgefühl*.<sup>38</sup> The similarity to Wölfflin's later concept of *Bildform* is evident. According to Göller these memory-images worked in series or 'chains' since, he argued, it is impossible to focus on all architectural elements of a building at once: the image of a larger form therefore is processed by memory cumulatively in a quick alternation between observation and synthesis.<sup>39</sup> For Göller, the pleasure component arises when the repeated observation and retention of partial images lead to an ever clearer *Gedächtnisbild* without ever achieving completeness. In his view, the pleasure a particular form causes ends the moment the image is complete.<sup>40</sup> This happens because of an all too frequent encounter with a particular form which dulls the excitement (*Abstumpfung*) and leads to 'form fatigue' (*Ermüdung des Reizes*).

Göller's definition of architecture 'ein an sich wohlgeffälliges, bedeutungsloses Spiel von Linien oder von Licht und Schatten' (a pleasurable, content-less play of lines or light and shadow) and his association of architecture with abstract, pure form is essential here, as it would be for Wölfflin.<sup>41</sup> Indeed Gurlitt had made much of Göller's concept of pure form in his review of the book which he published in *Deutsche Bauzeitung*, a journal of great circulation among architects and in which Wölfflin had published as well.<sup>42</sup> He applauded Göller for demonstrating how the 'so-called pure decorative forms' of architecture, that is, the abstract systems of geometrical lines that have no narrative content cause pleasure in and of themselves.<sup>43</sup> Clearly Wölfflin's 'decorative scheme' that he was to develop later in *Grundbegriffe* and his *Bildform* from *Klassische Kunst* responded to these ideas.

<sup>38</sup> Göller, *Entstehung*, 17.

<sup>39</sup> 'Denn eine jede grössere Form erfassen wir nach und nach; es ist uns unmöglich, an einem Bauwerk gleichzeitig etwa das Ornament an einer Konsole und einige Meter davon den Fuss einer Säule aufmerksam zu betrachten. Das Bild einer grösseren Form zieht also als eine Kette von Vorstellungen in das Gedächtniss ein.' *Ibid.*, 18.

<sup>40</sup> 'das Bildresiduum durch rasch wiederholte Betrachtung der Form sich immer klarer zeichnet, aber doch niemals fertig ist...Die Formenfreude hört auf sobald das Bild vollendet ist.' *Ibid.*, 19.

<sup>41</sup> *Ibid.*, 6.

<sup>42</sup> Cornelius Gurlitt, 'Göller's ästhetische Lehre' 21, *Deutsche Bauzeitung*, 17 Dec., 1887, 602-04; 606-7.

<sup>43</sup> 'Die Schönheit der reinen Form ist uns in den Werken der Malerei und Skulptur wie auch in den meisten Gebilden der organischen Natur durch den Gedankengehalt völlig verdeckt... anders in der Architektur! Sie bietet uns ... Systeme von abstrakten, geometrischen Linienzügen... Ihre Formen drücken hiernach für den natürlichen Verstand zunächst nichts aus. Diese sogenannten 'rein dekorativen' Formen geben ganz unmittelbar den Begriff der *reinen bedeutungsloser Form*, und liefern den ersten Beweis dass in der Architektur die Form auch ohne Inhalt erfreut.' *Ibid.*

To be sure, both Wölfflin and Göller also connected to perceptual psychology directly, but Göller provided an example of how it could be applied to art and in particular the importance of architecture as abstract art to conceptualizing visual and memory processes.

But if Göller was an immediate interlocutor who signalled architecture, Gottfried Semper was a more powerful influence on the totality of Wölfflin's thinking. This should come as no surprise, as Wölfflin was surrounded by Semperians and certainly felt the fall-out from Semper's presence in Zurich. Not only had Semper taught at the newly founded Eidgenössische Technische Hochschule in Zurich alongside Burckhardt (and built it as well), but he was greatly admired by Wilhelm Dilthey (with whom Wölfflin studied philosophy in Berlin) and, alongside Robert Vischer, had been one of the first, indeed inaugural proponents of *Einfühlung* theory.<sup>44</sup> Moreover his writings were still 'current' as *Der Stil* (1860-2) had been republished in 1878 and the *Kleine Schriften* in which much of his theory of ornament was presented in shorter and more accessible essays had appeared in 1884, that is, during Wölfflin's student years.<sup>45</sup> Wölfflin does not use many footnotes, particularly in the 'Prolegomena', but one of the very few acknowledges Semper.<sup>46</sup> Even more importantly, it occurs in a very significant location, where Wölfflin states that '[a] new style in fact, is always born within the sphere of the decorative arts.'<sup>47</sup> The connection between the decorative arts, small objects (*Kleingerät*) and artefacts (*Kleinkunst*), furniture, costume and architecture—in other words all those objects that come in close contact with the body—is perhaps the most momentous contribution that Semper had made to architecture but also to the history of art. His purpose was stated clearly in his Introduction. In his view, the 'instinct towards art' (*Kunsttrieb*), the basic human 'aesthetic necessity' was to be found in its clearest form in these, the simplest and most ancient of man's inventions.<sup>48</sup> [fig. 3] And it is precisely this orientation towards the unselfconscious testimony of artistic instinct that would capture Wölfflin's imagination and later Alois Riegl's as well when he formulated the concept of *Kunstwollen*.<sup>49</sup>

<sup>44</sup> On Burckhardt and Semper in Zurich, as well as on his interaction with R. Vischer see Werner Kaegi, *Jacob Burckhardt. Eine Biographie*, Basel, 1947, 572-98 and 607; Harry Mallgrave, *Gottfried Semper, Architect of the Nineteenth Century*, New Haven, 1996; W. Oechslin and W. Nerdinger *Gottfried Semper 1803-1879*, Zurich, 2003.

<sup>45</sup> Gottfried Semper, *Kleine Schriften*, ed. M. and H. Semper, Berlin and Stuttgart: W. Spemann, 1884). Idem., *Der Stil in den tektonischen Künsten*, Munich, 1878; 2<sup>nd</sup> ed..

<sup>46</sup> Wölfflin, 'Prologomena', 43, n.1. He also quotes Semper in Wölfflin, *Renaissance und Barock*, 58.

<sup>47</sup> Wölfflin, 'Prologomena', 43.

<sup>48</sup> 'Auch diese [die technischen Künste] sind in unserer Aufgabe, und zwar in erster Linie enthalten—zunächst weil die aesthetische Notwendigkeit, um die es sich handelt, gerade an diesen ältesten und einfachsten Erfindungen des *Kunsttriebes* am klarsten und fasslichsten hervortritt.' Semper, *Der Stil*, vol.1, ix.

<sup>49</sup> Riegl, *Spätromische Kunstindustrie*.

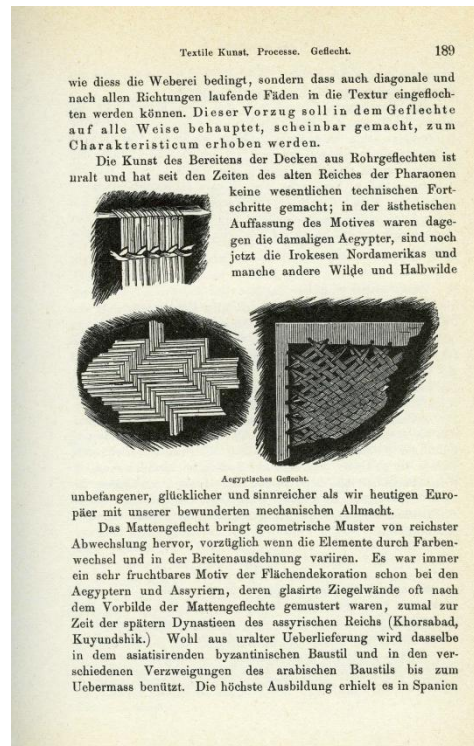


Figure 3 Gottfried Semper, Egyptian Wickerwork, from *Der Stil in den technischen und tektonischen Künsten*, 1878.

What Semper had reacted to was the Industrial Revolution so spectacularly displayed in the Great Exhibitions with which he was closely involved during his sojourn in London—the millions of objects hurled forth by the machine for mass consumption.<sup>50</sup> [fig. 4] Their lack of aesthetic value, and indeed, of style concerned him profoundly and moved him to write his 1852 famous essay ‘Science, Industry and Art’ (first written in English and then translated in German).<sup>51</sup> This crisis of style he associated to a crisis of fabrication. According to him new materials demanded new forms and, among other insights this led him to anticipate the possibilities of rubber as membrane in a very long and tantalizing footnote.<sup>52</sup> But if he engaged in a form of futurism, such concerns also led him to look at primitive

<sup>50</sup> On the nineteenth-century discourse on objects or *Sachkultur* and Semper’s significant place in it see Alina Payne, *From Ornament to Object. Genealogies of Architectural Modernism*, New Haven: Yale University Press, 2012.

<sup>51</sup> Gottfried Semper, ‘Science, Industry and Art’ in *The Four Elements of Architecture*, ed. W. Herrmann, Cambridge, 1989.

<sup>52</sup> Semper, *Der Stil*, vol. 1, 105-12.



Figure 4 Interior Perspective of the Crystal Palace at London's Great Exhibition, 1851, *Dickinson's Comprehensive Pictures of the Great Exhibition*, London 1851.

and/or distant cultures to identify the mechanisms by which style came into being. The Maoris of New Zealand on the one hand, and ancient Assyrian art on the other, were the two poles between which his theories developed. The idea of an instinct towards ornament that first manifested itself in self-ornamentation (the tattoo) and subsequently in all the crafts associated with the body was powerful and surfaced in the literature on ornament from Owen Jones to Alois Riegl.<sup>53</sup> [fig. 5, 6]



Figure 5 Female Head from New Zealand, in the Museum, Chester from Owen Jones, *The Grammar of Ornament*, London 1856.

<sup>53</sup> Owen Jones, *The Grammar of Ornament*, London, 1856; Alois Riegl, *Stilfragen*, Berlin, 1926; 1st ed. 1893.

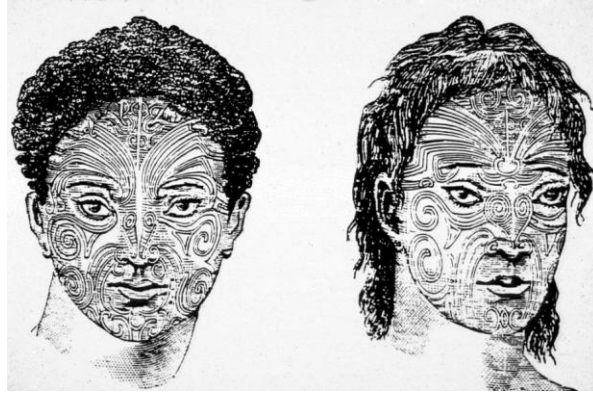


Figure 6 Alois Riegl, *Stilfragen: Grundlegungen zu einer Geschichte der Ornamentik*, Berlin 1893.

Semper's conclusion was that style first manifested itself in the objects of everyday use and it is through a process of translation and residual memory that it became transported across materials (from textile to clay to wood and metal) and finally reached monumental art, that is, architecture and stone.<sup>54</sup> Having established *Kunstgewerbe* as the DNA of culture Semper then argued that a healthy base—a healthy decorative arts industry (*Kunstindustrie*)—meant a healthy, vigorous style and for this reason it was imperative to fight its contemporary decline. As remedy he famously proposed the formation of travelling exhibitions, permanent museums focused on the crafts and decorative arts schools, of which the London South Kensington Museum and the Vienna Museum für Kunst und Industrie were among the first.<sup>55</sup>

But the emphasis on *Gewerbe* and *Kunstgewerbe* as a privileged location of style and hence the increased attention they received was a much larger phenomenon than Semper, even if he wrote persuasively about it. The joint findings of archaeology, anthropology and palaeontology contributed to his thinking as they did to that of most scholars in this period—to the thinking of such diverse figures as Giovanni Morelli and Aby Warburg, and of course also Wölfflin.<sup>56</sup> Indeed, this area of the man-based sciences in conjunction with the museum movement and the Great Exhibitions were the areas of greatest growth and intellectual energy in the later 19<sup>th</sup>

<sup>54</sup> Semper had adumbrated these views in a number of lectures and summarized them albeit too ponderously in his magnum opus on style. See for example Gottfried Semper, 'Über die formelle Gesetzmässigkeit des Schmuckes und dessen Bedeutung als Kunstsymbolsymbol,' *Monatsheft des wissenschaftlichen Vereins*, Zurich, 1856.

<sup>55</sup> Semper views on the arrangement of such museums is contained in his essay 'Ideales Museum für Metalltechnik' written in 1852 and dedicated it to Rudolf von Eitelberger, the first director of the Vienna Museum für Kunst und Industrie in the year of its founding 1867. It was first published in Julius Leisching, 'Gottfried Semper und die Museen', *Mitteilungen des Mährischen Gewerbemuseums*, Brünn 1903.

<sup>56</sup> Richard Pau, 'Le origini scientifiche del metodo Morelliano', in G. Agosti et al., eds., *Giovanni Morelli e la cultura dei conoscitori*, Bergamo: Pierluigi Lubrina, 1993, 301-19. On Aby Warburg and Franz Boas see Aby Warburg, *The Renewal of Pagan Antiquity*, intro. K. Forster, Sta. Monica, 1999 and Georges Didi-Huberman, *L'image survivante*, Paris, 2006, 51-60.

century. For example, as Suzanne Marchand has argued, the large archaeological sites in Greece and Turkey were generating so many objects that were crated and sent home to the museums that some instrument was necessary to process them, classify them quickly and make them available for display.<sup>57</sup> Style became such a tool and this very practical reason explains at least in part the growing literature on this subject, albeit its intellectual sources were in aesthetics, particularly among German scholars.

Neither the circulation of objects nor their significance could be missed by art historians. Perhaps Riegl is the classic case, publishing as he was from within Vienna's Museum für Kunst und Industrie, one of the most Semperian and active museums in this period.<sup>58</sup> His first major publications—on peasant calendars, carpets, ornament and Roman artefacts (*Kunstindustrie*)—are a case in point.<sup>59</sup> Even outside the museums the pervasiveness and sheer quantity of literature and visual events associated with the decorative arts and everyday objects went from economics through ornament to costume history and as such it was inescapable. [fig. 7, 8]

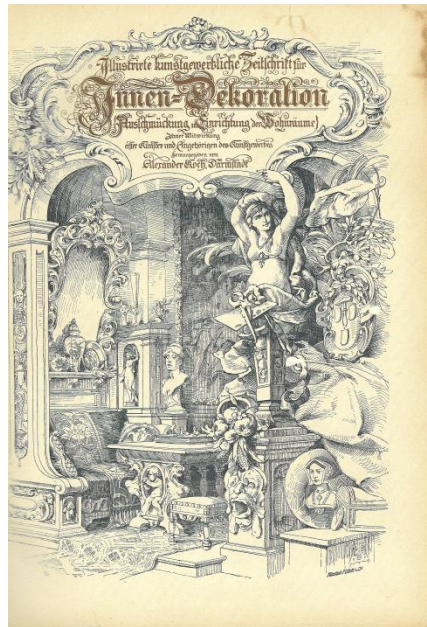


Figure 7 Title page of *Illustrierte Kunstgewerbliche Zeitschrift für Innendekoration*, 1892.

Under the circumstances it should come as no surprise that the books on anthropology (a new, late 19<sup>th</sup> century academic discipline) should focus on objects

<sup>57</sup> Suzanne Marchand, *Down from Olympus. Archaeology and Philhellenism in Germany, 1750-1970*, Princeton, NJ., 1996.

<sup>58</sup> On the history of the museum see Peter Noever ed., *Kunst und Industrie. Die Anfänge des Museums für Angewandte Kunst in Wien*, Vienna, 2000.

<sup>59</sup> See for example Alois Riegl, *Die mittelalterliche Kalenderillustration*, Innsbruck, 1889; Idem, *Altorientalische Teppiche*, Leipzig, 1891; Idem, *Volkskunst, Haussfleiss und Hausindustrie*, Berlin, 1894.



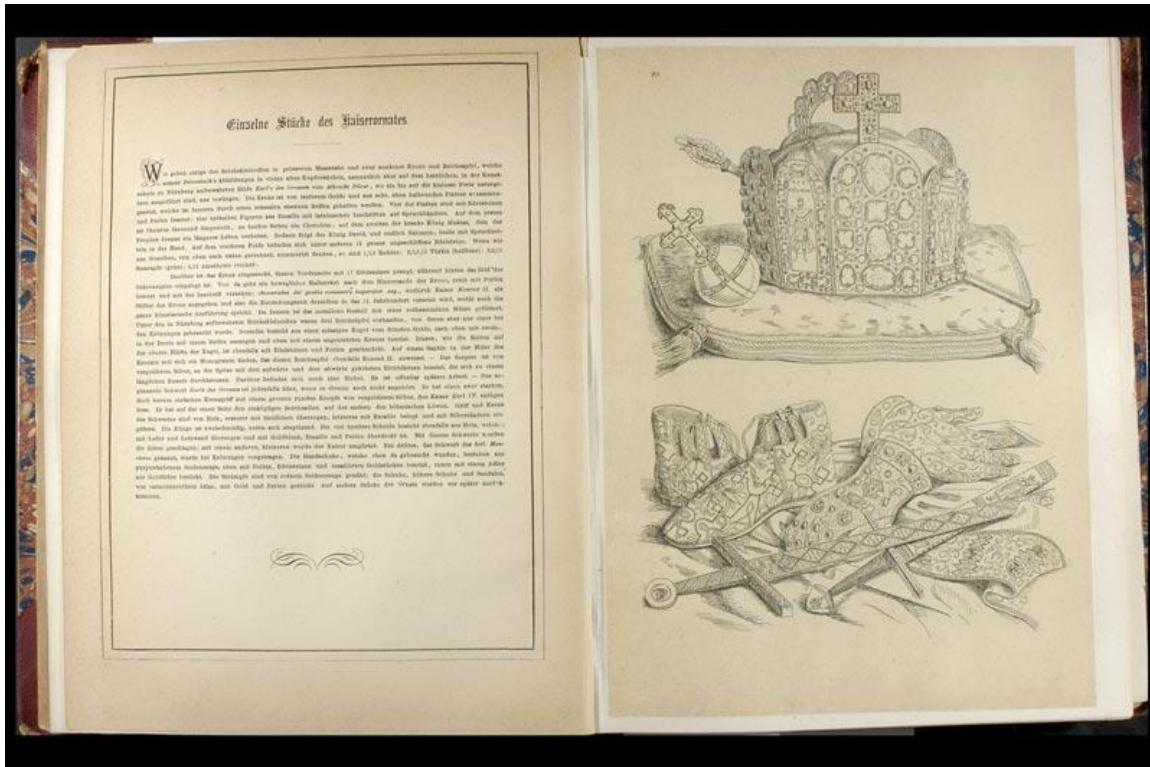


Figure 8 Jakob von Falke and August von Eye, *Kunst und Leben der Vorzeit*, Nürnberg 1866.

and ornament as evident means of classifying cultures.<sup>60</sup> Both Swedish anthropologist Hyalmar Stolpe (an important source for Riegl) and English anthropologist Colley March made this point and this perspective left an important imprint on definitions of culture in the scholarly literature.<sup>61</sup> For example August von Eye, professor at the Dresden school of decorative arts (whose position was taken over by Cornelius Gurlitt upon his retirement) published *Atlas der Culturgeschichte* in 1875, where all these threads come together: clothing and architecture, tools and wigs all speak about a unified and defining style of an epoch or culture.<sup>62</sup> [fig. 9] Ornament books from Owen Jones onwards, books on costume, journals such as *Paletnologia Italiana* (which published articles on stone-age artefacts and which influenced Morelli) were part of the same interest that collapsed ornament, objects and architecture into one discourse.<sup>63</sup>

<sup>60</sup> For example see Christian F. Feest, 'The Origins of Professional Anthropology in Vienna,' in *Kulturwissenschaften im Vielvölkerstaat*, ed. B. Rupp-Eisenreich and J. Stagl, Vienna, 1995, 113-31.

<sup>61</sup> Hjalmar Stolpe, 'Entwicklungserscheinungen in der Ornamentik der Naturvölker', *Mittheilungen der Anthropologischen Gesellschaft in Wien* XXII, 1890, 19-62; H. Colley March, 'The Meaning of Ornament, or Its Archaeology and Its Psychology', *Transactions of the Cheshire and Lancashire Anthropological Society*, 1889.

<sup>62</sup> August von Eye, *Atlas der Culturgeschichte*, Leipzig, 1875.

<sup>63</sup> See above note 53.

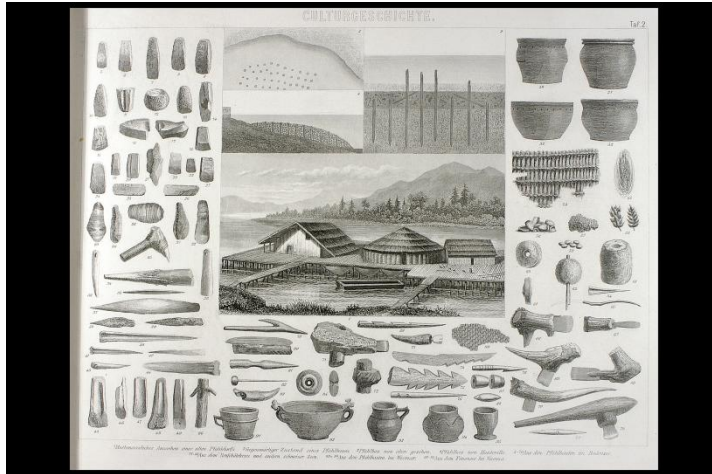


Figure 9 August von Eye, Speculative Reconstruction of Ancient Stilhouses from *Atlas der Culturgeschichte*, 1875.

Von Eye's ideas bore fruit as he influenced perhaps one of the most unique contributions on objects-as-tools in the 19<sup>th</sup> century. This was by Ernst Kapp's *Grundlinien einer Philosophie der Technik* of 1877 which was discussed at length in the German architectural press.<sup>64</sup> His principal contribution to the discussion of *Kleingerät* (small instruments) was his concept of organ-projection. In his view the movement of a tool is the continuation of the movement by the hand (or arm) which acquires a 'mechanical extension' rather like a prosthesis.<sup>65</sup> [fig. 10] And he argued that this phenomenon applied to all instruments (whether made by hand or by machine). Thus electrical cables or steel trusses for bridges contained projections of human organs, such as the nervous system or the bone structure, all unselfconsciously translated into different scales and materials. [fig. 11] In his catalogue of such projections he defined clothing (using the old Semperian term *Bekleidung*) as 'portable dwelling' and in an effort to show correspondences between the two, architecture and clothes, he analyzed costume in terms of the Golden Section. This idea, which was fundamental to his thinking, he credited to von Eye and he quoted his lecture of 1876 titled 'Room, house and garden, an extension and enlargement of our clothing'.<sup>66</sup> His own definition of clothing was almost a word for word quotation of this title: 'everything that the body wears including the appointment of the interiors by the human hand, and from here of the immediate surroundings.'<sup>67</sup>

<sup>64</sup> Ernst Kapp, *Grundlinien einer Philosophie der Technik*, Braunschweig, 1877.

<sup>65</sup> 'Die Bewegung des Handwerkzeuges ist die Fortsetzung der Hand- und Armbewegung durch Überleitung derselben auf die technische Verlängerung, die in Form eines Gliedansatzes an das Organ stattfindet.' *Ibid.*, 61.

<sup>66</sup> 'Zimmer, Kammer, Haus und Garten eine Fortsetzung, eine Erweiterung unserer Kleidung bilden.' *Ibid.*, 267.

<sup>67</sup> 'Alles, was der Körper trägt, hinaus auf die nächste von der Menschenhand geschaffene Einrichtung des Wohnraumes und von da auf die angrenzende Umgebung.' *Ibid.*, 268.



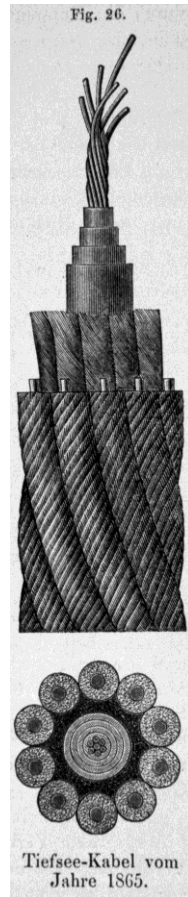


Figure 10 Ernst Kapp, Tiefsee-Kabel vom Jahre 1865, *Grundlinien einer Philosophie der Technik*, 1877.

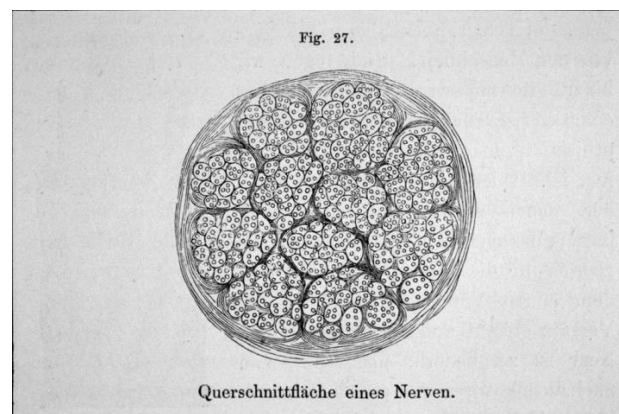


Figure 11 Ernst Kapp, Querschnittfläche eines Nerven, *Grundlinien einer Philosophie der Technik*, 1877.

Such readings penetrated the art history literature. In his own *Italienische Hausmöbel der Renaissance* (1902) none other than Wilhelm von Bode, 'the Bismarck

of museums' argued for the importance of furniture in defining period style.<sup>68</sup> Indeed, except in Riegl's case, it is not generally noticed how often art historians wrote about *Gewerbe* of one sort or another at the turn of the century. And what is even less recognized and is important to stress, is that the path that connected the objects of daily household use with the high arts passed through architecture and that this connection had been made forcefully by Semper. He certainly articulated an existing tradition as in philosophy the connection between them had been made consistently since Kant, Schelling and more recently Fechner. But it was Semper who had turned it into a theory of art.<sup>69</sup>



Figure 12 Great Altar of Pergamon, second quarter of second century, B.C., Pergamon Museum, Berlin.

Beyond the literature from various adjacent fields to art history, there was one more moment of importance in Wölfflin's reading of style and his turn to *Stilwandlung*, and it really determined his shift in focus from aesthetics to art history and to style change in particular. This was the arrival of the Pergamon altar in Berlin and the public debates it led to.<sup>70</sup> [fig. 12] The marbles started arriving in 1879 and caused an extraordinary sensation. Simply put they challenged the established conception of classicism and value that had existed since Winckelmann. Burckhardt himself gives voice to the reaction in 1882: 'This discovery has thrown the

<sup>68</sup> 'In kulturhistorischer Richtung bietet es [das Hausrat] den Einblick in das häusliche Leben der Völker; das Mobiliär hat man daher nicht mit Unrecht 'die Seele des Hauses' genannt. Von hervorragender Bedeutung ist es für das Kenntniss des Stils in seiner Entwicklung zu den verschiedenen Zeiten und bei den verschiedenen Völkern.' Wilhelm von Bode, *Italienische Hausmöbel der Renaissance*, Leipzig, 1902, 2.

<sup>69</sup> For a summary of these positions see Eduard von Hartmann, *Aesthetik*, Leipzig, 1886-7, 482 ff. For a discussion of Hartmann see Maria Ocon Fernandez, *Ornament und Moderne: Theoriebildung und Ornamentdebatte im deutschen Architekturdiskurs 1850-1930*, Berlin: Reimer, 2004.

<sup>70</sup> Alina Payne, 'Portable Ruins. The Pergamon Altar, Heinrich Wölfflin and German Art History at the *fin de siècle*', *RES. Journal of Aesthetics and Anthropology*, 53/4, spring/autumn 2008, 168-89; and Alina Payne, 'On Sculptural Relief: Malerisch, the Autonomy of Artistic Media and the Beginnings of Baroque Historiography from Burckhardt to Wölfflin,' in *Rethinking the Baroque*, ed. H. Hills, London: Ashgate, 2011, 39-64.

archaeologists' system into confusion! The narrow aesthetic is shaken to its roots, everything that had been written about the pathos of the Laocoon is waste paper, now that we have witnessed this frightful event.'<sup>71</sup> Indeed, the parallel discoveries in Olympia which Ernst Curtius was excavating at the same time, faded into insignificance. As I have shown elsewhere, what the Pergamon marbles did was to establish the Baroque as a style in its own terms rather than a decadent style and ultimately made the 'Bernini-style', as Burckhardt had dubbed it, aesthetically acceptable.<sup>72</sup> The contrast between classicism and this 'frightful event' precipitated the question of how one style turns into another. This was the backdrop against which Wölfflin developed his own question: 'What became of the Renaissance' (*Was wird aus der Renaissance*)? The debates between 1882 and 1885 among ancient scholars (Alexander Conze, Guido Hauck and Heinrich von Brunn) that centred on the painterly (*malerisch*) qualities of the frieze and on the fact that the altar was really a cross between architecture, sculpture and painting were not lost on Wölfflin. Indeed, he quoted von Brunn's essay on the Gigantomachia often in *Renaissance und Barock*.<sup>73</sup> More importantly, in his Preface he states: 'For now, I had to abandon the plan for a parallel presentation of the ancient Baroque. It would have been too much of a burden for this little book. However, I hope to present this remarkable comparison elsewhere soon.'<sup>74</sup> And he dedicated the book to Brunn.

This final push towards the problem of *Stilwandlung* was not caused by architecture, it is true, but it was the sculptural frieze's relationship to architecture, as explained by Brunn, which gave Wölfflin the key to reading architectural form. Indeed, Brunn had argued that the wildly contorted bodies locked in mortal combat on the altar's base were a representation of the forces at work within the architecture: the dynamic between the forces of load and those of support received a mimetic representation and conveyed in bodily terms what a spectator could react to and what otherwise would remain 'locked' in the abstract vocabulary of architecture.<sup>75</sup> This reading which Wölfflin took over in his 'Prolegomena' contributed much to his reading of architecture in terms of sculpture that characterized his later work. Understanding architecture in terms of sculpture as a 'corporeal' art rather than as an art of space manipulation, as August Schmarsow noted critically later, allowed Wölfflin to define Baroque architecture in terms that connected it with the other arts, rather than maintaining its autonomy as Schmarsow insisted.<sup>76</sup> Even more importantly, this strategy also presented a

<sup>71</sup> Literature on Pergamon cited in Payne, 'Portable Ruins'; for Burckhardt's statement see Marchand, *Olympus*, 99.

<sup>72</sup> Jacob Burckhardt, *Der Cicerone: eine Anleitung zum Genuss der Kunstwerke Italiens*, Berlin, 2000; 1st ed. 1855, 550.

<sup>73</sup> Wölfflin, *Renaissance und Barock*, 22, n. 3; 23

<sup>74</sup> *Ibid.*, Preface.

<sup>75</sup> Brunn, 'Gigantomachia', 234.

<sup>76</sup> August Schmarsow, *Zur Frage nach dem Malerischen*, Leipzig, 1896; Alina Payne, 'Architecture, Ornament and Pictorialism: Notes on the History of an Idea from Wölfflin to Le Corbusier', *Architecture and Painting*, ed. K. Koehler, London, 2001, 54-72.

jumping-off point for the next generation—Giedion and Hitchcock among them—to conceive of modern architecture as abstract sculpture.<sup>77</sup>

\* \* \*

In his life-long search for the mechanisms of *Stilwandlung* Wölfflin gradually moved from the body (and Semper) to optical patterns and images under the influence of Adolf von Hildebrand. But architecture remained the location where he first formulated the problem and where his thinking matured, and Giedion's response records and alerts to this process. Architecture acted for Wölfflin as a sort of laboratory, as a place that held his tools and offered him the conditions to reach his conclusions. Once he had reached them, architecture was no longer necessary, and so he moved on.

**Alina Payne** is Professor at Harvard University. Her most recent publications are *Rudolf Wittkower*, Bollati-Boringheri, 2010; *From Ornament to Object. Genealogies of Architectural Modernism*, Yale University Press, 2012; and *The Telescope and the Compass. Teofilo Gallaccini and the Dialogue between Architecture and Science in the Age of Galileo*, Leo Olschki, 2012. In 2006 she was awarded the Max Planck and Alexander von Humboldt Prize in the Humanities.

aapayne@fas.harvard.edu

<sup>77</sup> Henry-Russell Hitchcock, *Modern Architecture: Romanticism and Reintegration*, New York, 1992; (1<sup>st</sup> ed. 1929); Alina Payne, 'Architecture and Objects: The Power of Pevsner', *Harvard Design Magazine*, spring 2002, 66-70.