

# The Socio-spatial Aesthetics of *Raumbildung*

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## Introduction

The question concerning the relative autonomy of architecture, as a practice of artistic design, has been discussed in that this relativity derives from the fact that architecture represents more than any other art a social and cultural practice.<sup>1</sup> Furthermore, it has been stated that this relativity becomes manifest in the double identity of architecture as an “autonomous form” and as an “instrument of culture.”<sup>2</sup>

But what does such double identity mean for the concept of architectural aesthetics?

Intending to answer this question and to more precisely define architectural aesthetics on the basis of its relation to the socially and culturally informed relativity of architecture, this article discusses the latter as embracing a particular kind of aesthetics and being, in this respect, intrinsically tied to a particular constituent of architectural design. This constituent is the phenomenon of *Raumbildung* – to be understood as the part that concerns the creation and structuring of physically defined spaces of inside and outside character, both separately and in relation to each other and to the open space. Thus, my article attempts to refine the aesthetics of architecture and its relation to the relative autonomy of architecture by delving into the concept of *Raumbildung*.<sup>3</sup>

In order to do so, my first starting point is a particular concept of aesthetics: that of aesthetic experience – in terms of architecture, the experience of built form and space by means of their sensuous, i.e. visual-corporeal perception while residing in and moving through both interior and exterior spaces. This concept distinguishes between aesthetics and (artistic) design, the latter defined as the phenomenon of creative activity directed at specific objects and the transformation of the human environment – and which is conceived to be just part of the realm of aesthetics by means of the sensuous perception of these objects (including their shape, materiality, etc.) and their creative production within a particular environmental context. The second point starts from the assumption that *Raumbildung* is the essential constituent of architectural design, characterizing the artistic nature of architecture, and therefore it also includes the potential to generate a particular architecture-aesthetic experience.<sup>4</sup> Finally, I assume that the design-related significance of *Raumbildung* lies first of all in its function to create defined spaces for

1 Kenneth Frampton, “Reflections on the Autonomy of Architecture: A Critique of Contemporary Production,” *Out of Site. A Social Criticism of Architecture*, ed. Diane Ghiardo (Seattle: Bay Press, 1991), 17-26; Kenneth Frampton, “Seven Points for the Millennium: An Untimely Manifesto,” *The Journal of Architecture* 5, 1 (2000): 21-33.

2 K. Michael Hays, “Critical Architecture: Between Culture and Form,” *Perspecta* 21 (1984): 14-29.

3 Since the concept of “space” in the German and English language substantially differ and the literal interpretation of the German term *Raumbildung*: space formation or formation of space may sound strange in English, so I have opted for the use of the original German term.

4 In this article, the term “artistic” is exclusively used in the sense of the German adjective “gestalterisch,” and, hence, in a design-related meaning. It is not used in terms of art (and the corresponding concept of aesthetics), qualifying a particular kind of designing as “künstlerisch.” The term “aesthetic,” in turn, is used as soon as architecture and its design are approached from the perspective of its sensuous perception and experience.

various forms of appropriation and use, as it lies in the corresponding potential to separate and connect spaces with one another and with the open space. In this sense, I regard *Raumbildung* as representing both a crucial component of architectural aesthetics as well as an essential means for the spatial organization of practical and social life – therefore linking architectural form and its design to the socio-spatial, use-related purposiveness of architecture.

Based on these assumptions (and the resulting fundamental significance of *Raumbildung* to the relative autonomy of architecture), it is argued that, at the level of *Raumbildung*, the socio-spatial, use-related purposiveness of architectural design and the aesthetic experience of architecture are interrelated and what qualifies the aesthetics of *Raumbildung* as socio-spatial aesthetics. Before this argument will be explained, however, the essential concepts of, and (implicit) references to, *Raumbildung* in recent architectural discourse, that is, from the 1960s onward, will be discussed.

### *Raumbildung* in Architectural Theory

In the German language, *Raumbildung* has been a familiar concept in architectural discourse since its introduction at the end of the nineteenth century by art historian August Schmarsow and others.<sup>5</sup> To this day, it is quite natural among German-speaking architects and theoreticians to discuss *Raumbildung* as a (fundamental) category of architectural design, as well as to refer to the given *Raumbildung* of a particular building or (urban) building structure. In the English literature on architecture, it is actually not to be found. Instead, the phenomenon of *Raumbildung*, thus the formation or creation of physically defined spaces and spatial relations, has been addressed as either the “defining”<sup>6</sup> or “organizing”<sup>7</sup> of space.

But how, and whether explicitly named as such or not, *Raumbildung* has been discussed in recent architectural discourse? First, apart from the German-language area, it has appeared in several educational books that explain the basic artistic principles of architectural design.<sup>8</sup> Here, the examination of *Raumbildung* concentrates on classifying various space-defining and structuring elements and the corresponding ways of bringing architectural space into being, starting with the modeling of the ground. Furthermore, different kinds and grades of enclosing, opening, and arranging defined spaces are discussed (both separately and in combination with one another), as well as other aspects of *Raumbildung* like the shape, depth, density, and stratification of space, and the interpenetration of defined spaces (both in relation to each other and to open space). Among these authors, it is Pierre von Meiss who most explicitly touches on the use-related and socio-spatial meaning of *Raumbildung*, although he does so in a rather general way: “The walls and the vertical structure are there to carry the ceiling and roof, guide our movements and activities, our objects and tools, accommodate us and lead us from one place to another. Walls separate and structure architectural space; they demarcate, protect and by this fact enable to inhabit.”<sup>9</sup>

5 August Schmarsow, *Das Wesen der architektonischen Schöpfung* [*The Essence of Architectural Creation*] (Leipzig: K.W. Hirsemann, 1894); Alois Riegl, “Die Architektur” [“Architecture”], in *Spätromische Kunstindustrie* [*Late-Roman Art Industry*] (Vienna: Österreich. Staatsdruckerei, 1901); August Schmarsow, *Grundbegriffe der Kunstwissenschaft* [*The Basic Principles of the Science of Art*] (Leipzig: G.B. Teubner, 1905); Paul Frankl, *Die Entwicklungsphasen der neueren Baukunst* [*The Development Phases of Recent Architecture*] (Leipzig: Teubner, 1914); Herman Sörgel, *Theorie der Baukunst. Band 1 Architekturästhetik* [*Theory of Architecture. Vol. 1 Aesthetics of Architecture*] (München: Piloty&Loehle, 1921); Leo Adler, *Vom Wesen der Baukunst* [*On the Essence of Architecture*] (Leipzig: Asia Major, 1926); Fritz Schumacher, “Das bauliche Gestalten” [“Architectural Design”], in *Handbuch der Architektur* [*Handbook of Architecture*], Vol. 4 (Leipzig: Gebhardt, 1926).

6 Francis D. K. Ching, *Architecture: Form, Space & Order* (New York: Van Nostrand Reinhold, 1979).

7 Simon Unwin, *Analysing Architecture* (London: Routledge, 1997).

8 Ching, *Architecture*; Pierre von Meiss, *De la Forme au Lieu* [*Elements of Architecture*] (Lausanne: Presses polytechniques romandes, 1986); Unwin, *Analysing Architecture*; Alban Janson and Florian Tigges, *Grundbegriffe der Architektur* [*Basic Concepts of Architecture*] (Basel: Birkhäuser, 2006).

9 Pierre von Meiss, *De la Forme au Lieu*, quoted from the English edition 1990, 129.

Next to these examinations of *Raumbildung* as part of overall discussions of architectural design, in other primarily German-language studies, architectural space takes center stage.<sup>10</sup> With the common aim of developing a fundamental concept of architectural space and its formation, these studies (like the aforementioned publications) primarily deal with architectural space at the level of its physical condition and thus as a synthesis of solid forms and “empty” space. This means that the architectural built form is discussed as one, or as a more or less close arrangement of several solids. The solid form is addressed as the “positive, formed part of architecture,” and the space between as the “unformed, the negative part,” as Oswald Mathias Ungers puts it.<sup>11</sup> The German architect Karsten Schubert focuses on the solid form’s surface as the physical, space-limiting boundary, and by which “solid and space are both separated from and connected to each other.”<sup>12</sup> As the space-forming shape, Dom Hans van der Laan deals with the solid form in terms of its own spatial extension and corresponding space-forming potential: “The form of the wall stems from the interaction of linear measures in various directions; but the form of the space is brought by a mutual neighborhood that involves the dimension of the walls and their distance apart.”<sup>13</sup> Ungers distinguishes in this regard between space-limiting cube, surface, and linear element, mentioning the “pillar, cornice, tie or strut member, pipe or tensioning rope”<sup>14</sup> as possible linear space-forming elements. By referring to space as a void, or as a configuration of voids, in shape and dimension defined by solid bodies, their surfaces, and the continuous or implicitly defined boundary, such (hollow) void is additionally discussed as an interval between solids and material surfaces, as (open) field<sup>15</sup> or area.<sup>16</sup> Van der Laan eventually discusses the void also in its proportional relation to the space-defining form: “Both the disposition of the wall and of the space go hand in hand. They happen in two consecutive orders of dimension and go along with one another as two melodies that differ in pitch and octave.”<sup>17</sup>

The works of Schubert and Hungarian historian of architecture Julius Gy Hajnóczy differ from the other three studies in their attempt to discover an overall systematization of all possible types of formed space. Irrespective of the extent of systematization, however, a common feature of all these studies is to set the socio-spatial, use-related meaning of *Raumbildung* more or less aside. Furthermore, they refer to the sensuous perception thus aesthetics of *Raumbildung*, if at all, in a rather general way. It is Jürgen Joedicke who, in his examination of *Raumbildung*, most clearly points to the sensuous perception and resultant subjective experience of architectural space, including the moment of time-related movement.<sup>18</sup> In Dom Hans van der Laan’s theory, the perspective of man even plays a pivotal role. He does so, however, in a rather idealistic and generalizing way, defining three principal ways of how man “appropriates” space: physically, visually, and mentally.<sup>19</sup> However, concerning the physical appropriation by the forming of architectural space, he neglects any social condition of human life and correspondingly any socio-spatial meaning of the phenomenon of *Raumbildung*. And concerning the visual and mental perception of space, he does not deal with the sensuous perception of architectural space

10 Oswald Mathias Ungers, *Prinzipien der Raumgestaltung [Principles of Spatial Design]* (Berlin: TU Berlin, 1963); Dom Hans van der Laan, *De architectonische ruimte [Architectonic Space]* (Leiden: Brill, 1977); Jürgen Joedicke, *Raum und Form in der Architektur [Space and Form in Architecture]* (Stuttgart: Karl Krämer, 1985); Julius Gy Hajnóczy, *Vallum und Intervallum. Eine analytische Theorie des architektonischen Raumes [Vallum und Intervallum. An Analytical Theory of Architectural Space]* (Budapest: Akadémiai Kiadó, 1988); Karsten Schubert, *Körper Raum Oberfläche [Body Space Surface]* (Berlin: Gebr. Mann, 2016).

11 Ungers, *Prinzipien der Raumgestaltung*, 43.

12 Schubert, *Körper Raum Oberfläche*, 12.

13 Van der Laan, *De architectonische ruimte*, 36-37.

14 Ungers, *Prinzipien der Raumgestaltung*, 42.

15 Joedicke, *Raum und Form in der Architektur*.

16 Ungers, *Prinzipien der Raumgestaltung*.

17 Van der Laan, *De architectonische ruimte*, 166.

18 Joedicke, *Raum und Form in der Architektur*, 9-10, 21-23.

19 Van der Laan, *De architectonische ruimte*, 23-79.

but rather focuses on its rational recognition by means of identifying the physical dimensions of solids and voids. Hajnóczy points to the perceiving human being in a more concrete way. Although taking into account the concrete subjective perspective of man, this does not include the perception of architectural space in terms of its formation. As a result, in all these studies on architectural space the purposive thus socio-spatial and use-related meaning of *Raumbildung* is addressed in a rather marginal way. Also, a real aesthetic examination that would discuss architectural space and *Raumbildung* in terms of sensuous perception, is rarely to be found. This neglect sets these studies apart from the discussion of architectural space as it developed at the end of the 19<sup>th</sup> and the beginning of the 20<sup>th</sup> century. At that time, both the question concerning the sensuous perception of architectural space as well as that of the purposive, practical meaning of *Raumbildung* played a determining role in the theoretical preoccupation with architectural space and its formation by art historians and architects.<sup>20</sup>

Since the 1980s, several other studies have quite successfully approached architectural space from a use-related and socio-spatial perspective.<sup>21</sup> In comparison with the aforementioned educational books and the explicit theories on architectural space, these studies focus on architectural (and urban) space in terms of its individual and collective appropriation and use, including the moment of use-related orientation and movement in space, and partially also in connection with its perception. Although the various contributions therefore provide comprehensive insight as to the use-related, socio-spatial and cultural meaning of aspects of *Raumbildung*, a common feature is either not reflecting on *Raumbildung* itself or doing so in an implicit or rather limited way.

With my approach to *Raumbildung*, I wish to add to the existing knowledge on architectural space a more concrete, comprehensive understanding of the fundamental significance of its formation in architectural design and aesthetics. My argument: it is the interrelation between the socio-spatial, use-related purposiveness of architectural design and its aesthetic experience that characterizes the aesthetics of *Raumbildung* will be explained in four steps. First, the formation of architectural space will be more precisely defined as a three-part interplay of the enclosing, opening, and arranging of defined space(s), an interplay that becomes manifest in the physical shape of a *raumbildenden Struktur* [space-forming structure] of physically defined spaces and spatial relations. Second, the aesthetic experience of architectural space takes center stage in reference to Gernot Böhme's perception-oriented theory of aesthetics. Third, the socio-spatial, use-related meaning of *Raumbildung* and its *Vergegenständlichung* [objectification] in such space-forming structure is discussed by referring to Georg Simmel's sociological theory of space. Finally, the integration of this "objectified" meaning in the aesthetic experience of architecture is explained as well as its significance for the socio-spatial effect of *Raumbildung* as an integral part of practical social life.

### The Socio-Spatial Aesthetics of *Raumbildung*

In this examination of (the aesthetics of) *Raumbildung* I use the concept of "space" in terms of what has been described in sociological theory as "physical space" in order to distinguish a "social space," the space of social life, and socio-economic reality.<sup>22</sup> Philippe Boudon refers to it

20 Compare: Oliver Sack, *The Socio-Spatial Aesthetics of Space Formation*. (Delft: TU Delft, 2019), 79-99.

21 Bill Hillier and Julienne Hanson, *The Social Logic of Space* (London: Cambridge University Press, 1984); Christoph Feldtkeller, *Der architektonische Raum: Eine Fiktion. Annäherung an eine funktionale Betrachtung. Bauwelt Fundamente* (Braunschweig: Fried. Vieweg & Sohn, 1989); Herman Hertzberger, *Ruimte Maken, Ruimte Laten. Lessen in Architectuur* [Making Space, Leaving Space. Lessons in Architecture] (Rotterdam: 010, 1996); Bill Hillier, *Space Is the Machine: A Configurational Theory of Architecture* (Cambridge: Cambridge University Press, 1996); Dick van Gameren, *Revisies van de ruimte* [Revisions of Space] (Rotterdam: NAI, 2005); Sophia Psarra, *Architecture and Narrative. The Formation of Space and Cultural Meaning* (London: Routledge, 2009).

22 Henri Lefebvre, *La production de l'espace* [The Production of Space] (Paris: Anthropos, 1974); Pierre Bourdieu, "Physischer, sozialer und angeeigneter physischer Raum" ["Physical, Social and Appropriated

as “real space” in order to distinguish a “mental space” – the space of thinking and imagination.<sup>23</sup> In line with the aforementioned studies, this includes the understanding of architectural space as consisting of a space-form synthesis: a unity of what appears to us as (a section of) “empty” space and the solid shape(s) that brings this particular section – and its connection to other sections of space – into being. At the same time, my reference to architectural space as a space-form synthesis differs from, for instance, Ungers’s and Joedicke’s studies, in which they refer to the phenomenon of a material enclosing and opening of space. Although Ungers speaks of “open limitation” and “enclosed envelop” as the two essential possibilities of *Raumbildung*, for him, as for Joedicke, it is the definition of two different kinds of architectural space that takes center stage. Here, the phenomena of enclosing and opening disappear, as it were, behind the conceptions of space as an (enclosed) volume, on one hand, and an (open) field (Joedicke) or area (Ungers) on the other. This, however, erases the identification of the enclosing and opening of space as both creative and purposive action, or, rather, as the result of such action. By contrast, the moment of material enclosing and opening come forward in my understanding of architectural space as a space-form synthesis. Furthermore, I refer to the physical enclosing and opening, of separating and connecting space, as two basic constituents of a three-part interplay, which also includes the spatial arrangement of defined spaces in relation to one another and to open space – hence, their configuration within a given spatial context.

*The Interplay of Enclosing, Opening and Arranging Spaces, and the Resulting Space-forming Structure*

The first fundamental constituent of this interplay is the creation of a physical enclosure of a particular section of space. It is by means of this enclosing that space receives a certain representational, object-like character and becomes, depending on the degree and type of enclosing, more or less distinguished and physically separated from the surrounding space. Furthermore, the moment of enclosing includes the definition of the shape and size of the space. Together with the implied proportions – and the resultant orientation in the horizontal and/or vertical direction – the type of enclosing generates a certain spatial dynamic, characteristic of the defined space itself that is to be perceived as soon as we reside in that space and move through it.

However (and leaving aside the case of a completely enclosed and inaccessible space, such as a tomb or a cave), the degree of enclosing and the resultant physical separation is always limited, which means that the defined space remains connected with the surrounding space. The limitation of enclosing – whether it results from the outline of the shape, from the spatial distance between different shapes, or is realized by means of physical openings within a shape – always generates an opening of the defined interior or exterior space and a corresponding spatial relation with the surrounding space. In this sense, any architectural (and urban) space is characterized by its dual physical-spatial nature: being both enclosed *and* open; separated from as well as connected to the surrounding space, be it in a direct or visual way. Together, enclosing and opening generate an additional spatial dynamic, different from the one generated by the enclosing on its own. It is a dynamic that results from a specific *Innenräumlichkeit* [enclosed spatiality], generated by the kind of enclosing and separation from the surrounding space, and a particular *Außenorientierung* [outward orientation], generated by the kind of opening and the resultant connection of the respective interior, or exterior space with the adjacent or surrounding space.

The third basic constituent of *Raumbildung* is the spatial arrangement of defined interior and exterior spaces in relation to one other and to the surrounding open space. It automatically becomes part of the phenomenon of *Raumbildung* as soon as we are concerned with the formation of more than one defined interior or exterior space. Within the three-part interplay of enclosing, opening, and arranging spaces, I regard the spatial arrangement of spaces to form

Physical Space”], in *Stadt-Räume*, ed. Martin Wentz (Frankfurt a.M., 1991); Martina Löw, *Raumsoziologie* [Sociology of Space] (Frankfurt a.M.: Suhrkamp, 2001).

23 Philippe Boudon, *Sur l'espace architectural* [On Architectural Space] (Paris: Dunod, 1971).

the abstract basis of the actual material manifestation of architectural space, which is realized by means of the material enclosing and opening of space. By means of their arrangement, defined spaces are separated from and related to one another in a pure spatial way.

Next to identifying the phenomenon of *Raumbildung* with such an interplay, the following point of my argument is that any space-forming interplay of the enclosing, opening, and arranging of spaces (conceived as both an artistic and purposive action) results in a built structure consisting of floors, walls, roofs, etc. In being the result of such an interplay, this built structure indeed represents a space-forming structure with particular, materially defined spaces and spatial relations – whether it is the case of a single building or a configuration of several buildings. Particularly in the latter case it (potentially) includes defined exterior spaces of particular grades of enclosure, as well as inside-out zones between defined interior and exterior spaces and between them and open space. The complexity of the space-forming structure depends on the number and form of the given interior and exterior spaces. It also results from the arrangement of such spaces – be they arranged next to, above, or within one other – as well as how they are materially separated from and connected to one another. Finally, as a space-forming structure, any built structure represents a network of various kinds of enclosed spatiality and various kinds of outward orientation. However complex this network of the space-forming structure may be, it always “operates” between the two extreme forms of formed space: within a maximum of enclosed spatiality and separation *from* open space, and a maximum of outward orientation and connection *with* open space.

### *The Aesthetic Experience of Raumbildung*

In the formulation of a socio-spatial aesthetics of *Raumbildung*, the term aesthetic is used to describe the artistic potential of *Raumbildung* to provide a particular aesthetic experience. Here I use the term “aesthetic experience” in a narrower sense than has been developed and discussed in the recent discourse on aesthetic experience.<sup>24</sup> I do not use it in relation to the act of designing and in any epistemological sense. In contrast, I solely employ this concept to describe the experience of the built environment by means of its sensuous perception at the moment of residing in and moving through it. In this sense, I use the term “experience” less in its German meaning of *Erfahrung* but rather in its meaning of *Erleben*. But also in this sense, the aesthetic experience of architectural space includes certainly more than the perception of a given space-forming structure of defined spaces and spatial relations, of enclosed spatiality and outward orientation(s). It includes the experience of the kind of present light, the perception of the materiality and coloring of the various building components and many other design-determining aspects. Furthermore, and although our visual perception seems to be – as long as we are able to see – the determining factor in the perception of the environment we reside, we also perceive architectural space by the sounds we hear, by the air we smell, and by the temperature and humidity we feel. Beyond this, the aesthetic experience of architectural space is influenced by our physical and psychological condition, our age, and eventually superimposed by whatever use-related activity and social (inter-)action in which we are involved. However, the perception of a given space-forming structure – of enclosed spatiality and outward orientation – is a crucial part of this rather complex experience of architectural space, and of the (built) environment as a whole. This is the part that affects our fundamental spatial condition in an immediate way, and by which the aesthetics of architectural space, thus architecture, and practical social life are interrelated.

In order to describe more clearly the aesthetic experience of architectural space in this sense, we can look at the perception-oriented discourse on the fundamental relationship of man to space and its application to architecture and architectural space, as has been developed in recent phenomenological theory. In particular, I wish to consider, for this purpose, Gernot Böhme's

24 Joachim Küpper and Christoph Menke, eds. *Dimensionen ästhetischer Erfahrung* [Dimension of Aesthetics Experience] (Frankfurt a.M.: Suhrkamp, 2003); Ursula Brandstätter, *Grundfragen der Ästhetik*. [Basic Questions of Aesthetics] (Cologne: Böhlau, 2008).



concept of “atmosphere.”<sup>25</sup> Böhme defines the term atmosphere as the central constituent in the aesthetic relationship between man and the natural or built environment. Here I refer to his general use of the concept of atmosphere as describing a perceptual reality. According to Böhme, this reality is constituted by its objective production and subjective experience, the latter based on corporeal and mental perception. Furthermore, I refer to his identification of atmosphere with space, describing atmosphere as a perceptual space that is constituted by the mediation between certain atmospheric qualities and their subjective perception. To identify the perception of space with the term atmosphere emphasizes the fact that we actually perceive our immediate (spatial) surrounding when we perceive space. It means that we perceive the atmospheric qualities that characterize this surrounding, be it the temperature of the air, or the sound or activity with which it is charged, as it were.

Concerning the creation of such atmospheric qualities, Böhme refers to the phenomenon of *Raumbildung* in a rather limited way. Though he points to the material appearance of architectural form, he does not deal with its space-forming potential. Correspondingly, he does not mention the material enclosing and opening of space. Instead, he first and foremost focuses on light and sound as two essential constituents in the creation of atmospheric qualities in architectural space.<sup>26</sup> Nevertheless, his conception of atmosphere also provides a fundamental insight into the sensuous perception of architectural space, understood as a space-forming structure. This is because in the perception of enclosed spatiality we can more clearly define the perception of a particular atmosphere: the atmosphere of *Umschlossenheit* [enclosedness], of being enclosed ourselves to a certain extent, be it in an inside or outside condition, and resulting from the given dynamic between spatial enclosure and outward orientation.

At the same time, however, with regard to the sensuous perception of architecture, Böhme’s concept of atmosphere only illustrates our perception of architecture in terms of a perceived surrounding, be it in various ways enclosed or open. It does not include the perception of architecture as (a configuration of) discrete objects, as objects that we perceive as being “opposed” to us. Therefore, I propose to complement his concept (i.e. its application to the perception of architectural space) with this second fundamental mode of perceiving architecture. As a result, I propose to conceive the sensuous perception of *Raumbildung*, which is the perception of the resultant space-forming structure of a given architecture, as defined by the interplay between its perception as a spatial environment (as surrounding space) and its simultaneous perception as “opposed” object. Here, this interplay includes two spatial perspectives from which we (simultaneously) perceive any space-forming structure: from the inside, thus surrounded by this structure, and from the outside, thus perceiving it as an (opposed) object in space. It is on the basis of this complement that Böhme’s concept of atmosphere also allows us to illustrate how the socio-spatial, use-related meaning of *Raumbildung* forms an integrated part of the aesthetic experience of architectural space. Before this will be described, however, this meaning itself and how it becomes manifest in built space is to be explained.

### *The Socio-spatial, Use-related Meaning of Raumbildung, and Its “Objectification” in the Space-forming Structure of Spaces and Spatial Relations*

Concerning the socio-spatial, use-related meaning of *Raumbildung*, I distinguish between a general socio-spatial and concrete use-related meaning, with the first related to the social and socio-psychological appropriation of space and the latter related to the concrete human activity taking place there. Appropriation and activity are linked to each other as the appropriation of space – be it for private, collective, or public use – and eventually gets realized by the practical use

25 Gernot Böhme, *Atmosphäre* [Atmosphere] (Frankfurt a.M.: Suhrkamp, 1995); Gernot Böhme *Architektur und Atmosphäre* [Architecture and Atmosphere] (Munich: Vink, 2006); Bernhard Waldenfels, “Architektonik am Leitfaden des Leibes” [“Architectonics Along the Guideline of the Human Body”], *Wolkenkuckucksheim* 1 (1996); Achim Hahn, *Architektur und Lebenspraxis* [Architecture and Life Practice] (Bielefeld: Transcript, 2017).

26 Ibid., 107-114, 139-147.

of the respective space. Despite this close connection, as well as the fact that the appropriation of space is also societally conditioned, it is the presence of an accessible (surface) area and its physical separation from the surrounding space and the corresponding activity, realized by the physical enclosing of space, that enables the practical execution of both appropriation and activity. Next to this, physical enclosing and separation encompass the creation of a protected area, safeguarding the persons involved not only in climatic but also in social and psychological terms. The latter holds true not only for private residential spaces but also concerns collective and public kinds of appropriation and corresponding activity, in particular, that which includes involvement and concentration, such as teaching or other kinds of gathering. Here, protection implies the moment of inclusion, of bringing people together in a particular place. The most illustrative example of this socio-spatial meaning of *Raumbildung* is probably the stadium. The primary socio-spatial and use-related purpose of the opening of space, in turn, is to enable access to the appropriated area and the activity taking place there, as it is the creation of proximity to adjacent spaces and corresponding activities. Eventually, the creation of both spatial proximity and distance is also the socio-spatial function of the arranging of enclosed and opened spaces.

As a result, physical enclosing, opening, and spatial arranging of defined spaces complement one another in spatially separating and relating places – and, hence, in appropriated areas and activity, and associated (inter-)action. Moreover, through this potential to create and enable socio-spatial distance and proximity between human beings *Raumbildung* forms an integral part of social life and its spatial organization. Eventually, it is particularly through the formation of spaces, separately and in relation to one another, that architecture is a social action itself and determines the fundamental (physical-) spatial condition of human life and social reality.

The German philosopher and sociologist Georg Simmel discussed social reality in terms of its spatial condition<sup>27</sup> by explicitly pointing to (physical) space both as the fundamental condition and the formal manifestation of that reality.<sup>28</sup> Focusing on community life, he identifies the corresponding potential of space with five basic qualities of space “on which the modes of shaping community life count.”<sup>29</sup> First, he names the fundamental quality of *Ausschliesslichkeit* [exclusiveness] of space – this is the singularity of a specific location in space and the resultant social quality of identifying this location with a specific social content, for instance, appropriating it as a place of living. Second, he points to the fundamental quality of space to enable the limitation of that place or of a certain socially defined area. In this respect, he also refers to the socio-psychological quality of (physical-) spatial wideness or narrowness as well as the correspondingly potential of a more or less *soziale Eingrenzung nach innen* [social localization and inside-orientation]. The third social quality of space for Simmel is the moment of *Fixierung* [fixation], or the potential to spatially fixate particular social values in space. Fourth, he notes the quality of spatial distance and proximity, and finally, describes the quality of enabling *Ortsveränderung* [locomotion] of an entire community or of parts within a given community.

Although Simmel himself discusses the social condition and reality of human life at a rather abstract level<sup>30</sup> and does not refer to direct forms of social (inter-)action,<sup>31</sup> in his work he

27 Georg Simmel, “Soziologie des Raumes” [“Sociology of Space”], *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich* 27, 1 (1903), 27-71; Georg Simmel, “Der Raum und die räumlichen Ordnungen der Gesellschaft” [“Space and the Spatial Systems of Society”], in *Soziologie. Untersuchungen über die Formen der Vergesellschaftung* (Berlin: Duncker & Humblot, 1908), 460-526.

28 Although space has, particularly in the last 40 years, been addressed by sociological and other related theory from a social and socio-economic perspective (Lefebvre 1974, Konau 1977, Bourdieu 1991, Löw 2001), it was Georg Simmel who, to this day, has most prominently broached the issue of the general physical-spatial identity of social life (also compare: Strassoldo 1992). Moreover, since his remarks on the fundamental spatial condition of human and social life confirm the corresponding socio-spatial meaning of *Raumbildung*, I here refer to Georg Simmel in order to exemplify this meaning.

29 Simmel, “Soziologie des Raumes,” 2.

30 Raimondo Strassoldo, “Lo spazio nella sociologia di Georg Simmel” [“Space in Georg Simmel’s Sociology”] *Annali di Sociologia* 8 (1992): 319-326.

31 Elisabeth Konau, *Raum und soziales Handeln [Space and Social Action]* (Stuttgart: Enke, 1977), 56-58.



succeeds in illustrating the general *spatial* condition of the social being of man. What makes Simmel's remarks so interesting in the context of the present examination of (the aesthetics of) *Raumbildung*, however, is that they implicitly confirm the identification of the described socio-spatial meaning of *Raumbildung*: Although Simmel does not deal with *Raumbildung* itself, his identification of, for instance, the spatial limitation of a certain socially defined area as a basic social quality of physical space implicitly points to the corresponding socio-spatial meaning of the limitation of a defined section of space by means of its physical enclosing. His identification of spatial distance and proximity as social qualities of space implicitly points to the socio-spatial meaning of *Raumbildung* to generate and enable social distance and proximity between humans. As a result, his remarks implicitly confirm that *Raumbildung* forms an integrated part of social life.

As an integral part of social life, another specificity of architecture is that it *vergegenständlicht* [objectifies] the socio-spatial appropriation of a particular location in space, as it "objectifies" the creation of socio-spatial distance and proximity. By the term "objectify" I mean that the condition of appropriation, that distance and proximity (and the corresponding meaning of *Raumbildung*) become manifest and expressed in physical shape. More precisely, it is the built structure as a structure of materially defined spaces and spatial relations, in which both become objectified. In this sense, the built structure of a given architecture not only enables the socio-spatial appropriation and effective use of a particular place, as stated earlier. In addition, it objectifies the real or potential appropriation, as it makes manifest and expresses the creation of (socio-) spatial distance and proximity. In terms of proximity, Simmel also points, for instance, to the "aesthetic value"<sup>32</sup> of a bridge as concretizing the purpose of connecting separate banks and associated spaces in its physical presence; similarly, he refers to the aesthetic value of a door as concretizing – in contrast to the window – its fundamental socio-spatial purpose of connecting *and* separating inside and outside, private and general space.

Although socio-spatial and use-related meanings are complementarily linked to each another, an essential difference between them is that the concrete activity-related meaning of *Raumbildung* is objectified in the material shape of buildings merely in an indirect and abstract way, becoming manifest rather by the practical execution of the use-related activities. By contrast, the socio-spatial meanings of creating (socio-)spatial distance and proximity are directly expressed, thus become part of the material appearance of a given space-forming structure, as they become part of the creation of (a dynamic of) enclosed spatiality and outward orientation. Owing to such objectification in architectural space – the essential result of the argument so far – the socio-spatial meaning of *Raumbildung* may also be perceived in direct connection with the sensuous perception of architectural space, in particular, the atmosphere of (relative) enclosedness.

#### *The Integration of the Socio-spatial Meaning of Raumbildung in the Aesthetic Experience of Architecture*

In order to illustrate this integration, I take as an example the very simple situation of the interior space of an apartment and its spatial relationship to a defined exterior space. It is an interior space accessible by one door from the inside. In terms of its outside relationship, we imagine it as being situated on a public street, which is defined on either side by buildings and to which the apartment's space is connected via a French window and a balcony in front. Since the objective of this example is to illustrate the interplay between the perceived atmosphere and the kind of *Raumbildung*, we imagine this space as completely empty and unfurnished.

Beginning with the inside perspective (and with the idea that we enter this space from the inside), the perception of the spatial situation is first the perception of a defined space with a distinct atmosphere of enclosedness, of being enclosed ourselves: the floor, enclosing walls, and ceiling clearly define the horizontal and vertical extensions of the space. By so doing, they also shape a particular enclosed spatiality that coincides with the experienced atmosphere of enclosedness. In terms of a given socio-spatial meaning with which this atmosphere is charged,

32 Georg Simmel, "Brücke und Tür" ["Bridge and Door"] *Der Tag* 683 (1903), 1-3.

it is particularly the perception of the interior space in its horizontal extension, and of the corresponding floor space, that adds to the perceived atmosphere the impression of an interior space that can be appropriated and used.

In relation to creating a particular atmosphere of enclosedness, however, we exclusively perceive the space-forming structure – another essential point of my argumentation – as a continuous, space-limiting surface. In this respect, its solid, three-dimensional character disappears, as it were, behind this surface. It is by means of this perception-related reduction of the space-enclosing structure to a three-dimensional surface that an enclosed space becomes for us a defined surrounding, one that we spatially appropriate by residing in it, moving through it, and using it. Rudolf Arnheim explains this phenomenon on the basis of the inside perception of the Hagia Sophia as follows: “The empty volume of space gets perceived as an extension of the human being. The concave forms of the cupolas and round walls look as if they would have received their passive guise from the fact that they have given space to the entering human being taking possession of the building.”<sup>33</sup> As a result, as long as it concerns the creation of enclosed spatiality and corresponding atmosphere of enclosedness, we apparently do not perceive architecture (or rather the corresponding space-forming structure) as an (opposed) object. By contrast, the object-character of the space-forming structure is negated.

However, the space-enclosing shape turns into an object for us at the place where it is opened and no longer encloses. In our example, this is particularly the case where the French window gives access to a balcony in front. Here, by recognizing the soffit of the opening, the space-enclosing wall appears to us in its thickness and thus turns from a space-limiting surface into a solid element between two spaces: the interior space where we reside and the exterior space of the street on the other side. Moreover, it becomes an element that generates a specific outward orientation. It is here that the space-forming structure expresses a particular socio-spatial meaning: the meaning of creating both distance between interior and exterior, and the simultaneous connection of both, creating proximity between the private dwelling and the public street. We particularly perceive this by walking through the French window into the outside balcony and returning again to the inside. What the enclosing and separating wall also expresses or rather generates here, through its perceptible solidness, is the impression of protection.

As one element in the space-forming structure of a building, particularly the balcony “objectifies” – differently from both the door and window – the socio-spatial meaning of interrelation between the interior of a building and the surrounding exterior space. Since the balcony is an outside extension of the interior, it creates a particular proximity between the physically separated inside and outside by occupying a limited section of the exterior space. Owing to the spatial distance between the balcony and the actual outside area, this occupation of the exterior space allows for a superimposition of inside and outside, in our situation, between the private interior and the public street. Here, this superimposition creates the opportunity for a socio-spatial interaction that clearly differs from that which would be enabled by the creation of a terrace on the street level.

Imagining the concrete situation of standing in the street (that is defined by buildings on either side), looking towards the French window and the balcony in front, we perceive the designed inside-out relation in the context of another enclosed spatiality: that generated by the defined street space. We perceive the corresponding atmosphere of enclosedness in the context of many other designed inside-out relations between the street and the interior of the other buildings, as well as in the context of the surrounding open space. However, the perception of socio-spatial distance and proximity – both in the apartment and in the street – is intrinsically tied to the perception of the space-forming structure in its three-dimensional appearance. Here, it indeed complements the perception of a particular enclosed spatiality and corresponding atmosphere of enclosedness. This atmosphere, in turn, coincides with the space in which we reside and which we perceive as our (immediate) surrounding. It is limited to this space and its specific

33 Rudolf Arnheim, *The Dynamics of Architectural Form* (Los Angeles: University of California Press, 1975), 103-104.

quality of enclosed spatiality, since what we perceive as atmosphere is the sensuous (and thus mental and corporeal) relationship between us and the particular space that surrounds us.

*The significance of this integration for the socio-spatial effect of Raumbildung as an integral part of practical social life*

As stated above, in comprising use-related and socio-spatial meaning(s), *Raumbildung* enables, frames, and partially determines use-related activities and other social (inter-)actions. By so doing, it forms an integral part of practical social life. It also forms such an integrated part through the objectification of its socio-spatial meaning, as well as by influencing, in this vein, the aesthetic experience of architecture. Moreover, I maintain that the socio-spatial effect of a given space-forming structure (of one of its elements) is intrinsically tied to such aesthetic experience, as relative and subjectively interpreted this experience may be. As described in the above example of the apartment with the French window, it is through its objectification, the corresponding material expression, and sensuous perception that the socio-spatial meaning of creating spatial distance and proximity also becomes effective in use-related and socio-spatial terms. A fundamental reason for this interrelation is that both our perception and our social existence rely on spatial conditions. Another reason is the fact that as social and acting beings, we are constantly in the condition of (sensuous) perception. To what extent this includes the perception of a particular atmosphere, of spatial enclosure, and outward orientation also depends – next to many other factors, mentioned above – on the use-related activity and social (inter-)action we are preoccupied with.

## Conclusion

Based on what has been explained about the aesthetic experience of architectural space, about *Raumbildung* as a three-part interplay of the enclosing, opening, and arranging of defined space(s), and about its socio-spatial, use-related meaning(s) and their objectification in the space-forming structure of build form, it could be demonstrated that – at the level of *Raumbildung* – the realms of architectural design and aesthetics and that of use, practical life, and social reality are interrelated with one another. In this sense, I hope to have demonstrated that the aesthetics of *Raumbildung* indeed can be identified as *socio-spatial* aesthetics. As a part of this interrelation, also the relative autonomy of architecture becomes aesthetically tangible thus effective.

Coming back to the initial question: what does the relative autonomy of architecture mean for the concept of architectural aesthetics, we can conclude that, at the level of *Raumbildung*, the specific socio-spatial relativity of architecture's autonomy – socially and culturally determined – is an intrinsic part of architectural aesthetics. Furthermore, by defining architectural aesthetics as to fundamentally include the sensuous perception of architecture as space-forming structure(s), architectural aesthetics turns out to be, inherently, socio-spatial aesthetics. Accordingly, one may argue that in architecture non socio-spatial aesthetics do not exist and that only if we neglect the space-forming identity of architecture and regard built structures as mere sculptures, we may refer to architectural design and its aesthetic experience separated from its socio-spatial, use-related purposiveness. Then, however, we are actually no longer referring to architecture.

## REFERENCE LIST

- Adler, Leo. *Vom Wesen der Baukunst*. Edited by Helmut Geiser and Fritz Neumeyer. Berlin: Gebr. Mann, 2000. Original edition: Leipzig, 1926.
- Arnheim, Rudolf. *The Dynamics of Architectural Form*. Los Angeles: University of California Press, 1975.
- Böhme, Gernot. *Atmosphäre*. Frankfurt a.M.: Suhrkamp, 1995.
- Böhme, Gernot. *Architektur und Atmosphäre*. Munich: Wilhelm Vink Verlag, 2006.
- Boudon, Philippe. *Der architektonische Raum. Über das Verhältnis von Bauen und Erkennen*. Basel: Birkhäuser, 1991. Original edition: *Sur l'espace architectural. Essai d'épistémologie de l'architecture*, Paris, 1971.
- Bourdieu, Pierre. "Physischer, sozialer und angeeigneter physischer Raum." In *Stadt-Räume*, edited by Martin Wentz. Frankfurt a.M., 1991.
- Brandstätter, Ursula. *Grundfragen der Ästhetik. Bild – Musik – Körper – Sprache*. Cologne: Böhlau, 2008.

- Ching, Francis D. K. *Architecture: Form, Space & Order*. Hoboken: John Wiley & Sons, 2007. Original edition: New York, 1979.
- Feldtkeller, Christoph. *Der architektonische Raum: Eine Fiktion. Annäherung an eine funktionale Betrachtung. Bauwelt Fundamente*. Braunschweig: Fried. Vieweg & Sohn, 1989.
- Frankl, Paul. *Die Entwicklungsphasen der neueren Baukunst*. Leipzig: B.G.Teubner, 1914.
- Frampton, Kenneth. "Reflections on the Autonomy of Architecture: A Critique of Contemporary Production." In *Out of Site. A Social Criticism of Architecture*, edited by Diane Ghiardo, 17-26. Seattle: Bay Press, 1991.
- Frampton, Kenneth. "Seven Points for the Millennium: An Untimely Manifesto." *The Journal of Architecture* 5, no. 1 (2000): 21-33.
- Gameren, Dick van. *Revisies van de ruimte*. Rotterdam: NAI Uitgevers, 2005.
- Hahn, Achim. *Architektur und Lebenspraxis. für eine phänomenologisch-hermeneutische Architekturtheorie*. Bielefeld: Transcript, 2017.
- Hajnóczy, Julius Gy. *Vallum und Intervallum. Eine analytische Theorie des architektonischen Raumes*. Budapest: Akadémiai Kiadó, 1988.
- Hays, K. Michael. "Critical Architecture: Between Culture and Form." *Perspecta* 21 (1984): 14-29.
- Hertzberger, Herman. *Ruimte Maken, Ruimte Laten. Lessen in Architectuur*. Rotterdam: Uitgeverij 010, 1996.
- Hillier, Bill. *Space Is the Machine : A Configurational Theory of Architecture*. Cambridge: Cambridge University Press, 1996.
- Hillier, Bill and Hanson, Julianne. *The Social Logic of Space*. London: Cambridge University Press, 1984.
- Janson, Alban and Tigges, Florian. *Fundamental Concepts of architecture. The Vocabulary of spatial Situations*. Basel: Birkhäuser, 2014. Original edition: *Grundbegriffe der Architektur: Das Vokabular räumlicher Situationen*, Basel: 2006.
- Joedicke, Jürgen. *Raum und Form in der Architektur*. Stuttgart: Karl Krämer verlag, 1985.
- Konau, Elisabeth. *Raum und soziales Handeln. Studien zu einer vernachlässigten Dimension soziologischer Theoriebildung*. Stuttgart: Enke, 1977.
- Küpper, Joachim and Menke, Christoph, eds. *Dimensionen ästhetischer Erfahrung*. Frankfurt a.M.: Suhrkamp, 2003.
- Laan, Hans van der. *Architectonic Space*. Leiden: Brill, 1983. Original edition: *De architectonische ruimte*, Leiden, 1977.
- Lefebvre, Henri. *The Production of Space*. Malden: Blackwell Publishing, 1991. Original edition: *La production de l'espace*. Paris, 1974.
- Löw, Martina. *Raumsoziologie*. Frankfurt a.M.: Suhrkamp, 2001.
- Meiss, Pierre von. *Elements of Architecture*. New York: Spon Press, 1990. Original edition: *De la Forme au Lieu*, Lausanne, 1986.
- Psarra, Sophia. *Architecture and Narrative. The Formation of Space and Cultural Meaning*. London: Routledge, 2009.
- Riegl, Alois. "Die Architektur." In *Spätromische Kunstindustrie*. Edited by Wolfgang Kemp. Berlin: Gebr. Mann, 2000. Original edition: Vienna, 1901.
- Sack, Oliver. *The Socio-Spatial Aesthetics of Space Formation. A New Perspective on the Concepts and Architecture of Walter Gropius and Aldo van Eyck*. Delft: TU Delft, 2019. <https://doi.org/10.4233/uuid:-380d0ac3-b3c9-4156-a2c1-a2e78b79b9e7>.
- Schumacher, Fritz. *Das Bauliche Gestalten*. Basel: Birkhäuser, 1991. Original edition: Leipzig, 1926.
- Schmarsow, August. *Grundbegriffe der Kunstwissenschaft*. Leipzig, Berlin: B.G.Teubner, 1905.
- Simmel, Georg. "Soziologie des Raumes." *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich* 27, 1 (1903-a): 27-71.
- Simmel, Georg. "Brücke und Tür." *Der Tag. Moderne illustrierte Zeitung* 683 (1903-b): 1-3.
- Simmel, Georg. "Der Raum und die räumlichen Ordnungen der Gesellschaft." *Soziologie. Untersuchungen über die Formen der Vergesellschaftung*, 460-526. Berlin: Duncker & Humblot, 1908.
- Sörgel, Herman. *Theorie der Baukunst. Band 1 Architekturästhetik*. Berlin: Gebr. Mann, 1998. Original edition: München, 1921.
- Schubert, Karsten. *Körper Raum Oberfläche: Strukturen Gebauten Raums und architektonische Raumbildung*. Berlin: Gebr. Mann, 2016.
- Strassoldo, Raimondo. "Lo spazio nella sociologia di Georg Simmel / Der Raum in der Soziologie Georg Simmels." *Annali di Sociologia / Soziologisches Jahrbuch* 8 (1992): 319-326.
- Ungers, Oswald Mathias. *Prinzipien der Raumgestaltung. Berufungsvortrag Technische Universität Berlin*. Berlin, 1963.
- Unwin, Simon. *Analysing Architecture*. London: Routledge, 2009. Original edition: London, 1997.
- Waldenfels, Bernhard. "Architektonik am Leitfaden des Leibes." *Wolkenkuckucksheim* 1, (1996).