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# **Ambiguity in Architecture**

Buildings are frequently described as ambiguous and, indeed, they often involve the ambivalence associated with ambiguous symbols. In this paper, I develop a theory of architectural ambiguity within the framework of a Goodmanian symbol theory. Based upon Israel Scheffler's study of verbal and pictorial ambiguity, I present a theory of denotational ambiguity of buildings which distinguishes four types of ambiguity: elementary ambiguity, interpretationambiguity, multiple meaning and metaphor, which proves to be a special case of multiple meaning. Denotationally ambiguous buildings are exceptions, because buildings usually exemplify rather than denote. I therefore add a theory of exemplificational ambiguity. The crucial distinction between mere multiple exemplification and genuine exemplificational ambiguity leads to two versions of each of the first three types of ambiguity. The resulting extension of Goodman's symbol theory is of interest beyond architecture.

In architectural critique and theory, buildings and their parts are frequently described as ambiguous. Charles Jencks speaks about the ambiguity of Le Corbusier's chapel at Ronchamp which "sets the mind off on a wild goose chase where it actually catches the goose, among other animals" (Jencks 1984, 48). Roger Scruton points to "the ambiguous arrangement of columns employed by Peruzzi in the entrance loggia to the Palazzo Massimo" (Scruton 1979, 87). According to Rudolf Arnheim "ambiguity can make one and the same building look tall when it is perceived in one context and small when it is perceived in another" (Arnheim 1977, 179). And in his discussion of Palladio's Villa Foscari, called the Malcontenta, Colin Rowe mentions "the ambiguity, profound in both idea and form, in the equivocal conjunction of the temple front and domestic bloc" (Rowe 1976, 14).

But talk of ambiguity in architectural critique and theory is too elastic to be of theoretical interest. First of all, ambiguity should not be confused with the discrepancy between what something is and what it seems to be: The mere fact that a bank looks like a church does not make it ambiguous. Neither should ambiguity be confounded with mere multifunctionality: Pillars of a church are not ambiguous simply because they simultaneously support the roof and shape the rooms. Thirdly, ambiguity does not just amount to generality or vagueness: It may be the case that some hotdog stand in form of a hotdog generally refers to hotdogs, and also that it fails to prepare us to decide whether a given snack is a hotdog or not, but this doesn't make the stand ambiguous. Finally, ambiguity should not be confused with a mere difference in reference by different parts of a building: the fact that the roof of a church refers to sailboats, while the frame of the nave is an inverted image of the skeletons of fishing boats neither makes the parts of the church nor the whole church ambiguous.

To be ambiguous a building must admit for multiple interpretations according to which it symbolizes or refers to different things. An interpretation is, in this paper, an assignment of a referent to a symbol. In the first two cases above, there need not be any reference at all. In the last two cases, the reference need not be ambiguous. Neither generality nor vagueness imply ambiguity; and that different parts of a building differ in their reference implies neither that the parts are, nor that the whole building is, ambiguous.

Nevertheless, buildings often do involve the sort of ambivalence associated with ambiguous symbols. In this paper, I propose a theory of architectural ambiguity in the framework of a Goodmanian symbol theory. I will confine myself to the two basic forms of reference acknowledged in this theory, denotation and exemplification. Usually ambiguity in architecture concerns exemplification, but there are a number of cases in which it concerns denotation. Starting with these exceptions, I present a theory of denotational ambiguity which is based upon Israel Scheffler's studies of verbal ambiguity (1979, 11–36; 1997, 25–49) and particularly of pictorial ambiguity (1997, 50–63). On that background I develop in section 2 a theory of exemplificational ambiguity.

### 1. Denotational ambiguity

Denotation is the semantic relation between a symbol and the objects to which it applies. Thus, a name denotes its bearer, a variable its values, a predicate the objects which it is true of, a passage the event it describes, a portrait its subject and a plan the building whose form it determines. Symbols which denote or pretend to denote are *labels*. Labels are seldom taken in isolation; they typically function as members of families of alternatives which sort the objects of a given domain. Such a family is a *scheme* and the objects it sorts constitute its *realm*. The scheme consisting of "odd" and "even" sorts the realm of integers; the scheme consisting of "blue", "red", "yellow" etc. the realm of the colours. A *system* is a scheme correlated with a realm (*LA*, 71f.; Elgin 1983, 37). This notion of a system is applicable to systems with only two alternatives ("odd"/"even") as well as to whole discourses (talk about art) or complete languages (English).

Even if parts of buildings – sculptures, frescos, mosaics, inscriptions, and so on – frequently function as labels, that does not hold for whole buildings, which usually neither denote nor pretend to denote. But there are a number of interesting exceptions. The notorious examples are the already mentioned hotdog stand in form of a hotdog and comparable structures of dubious taste. Architecturally more important cases are Claude-Nicolas Ledoux' design for a house of pleasure (Fig. 1), a brothel with a phallic ground plan, and the famous TWA-terminal built by Eero Saarinen in 1962 for the Kennedy Airport (Fig. 2), which, according to general opinion, de-

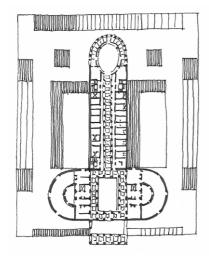


Figure 1. Claude-Nicolas Ledoux, House of Pleasure

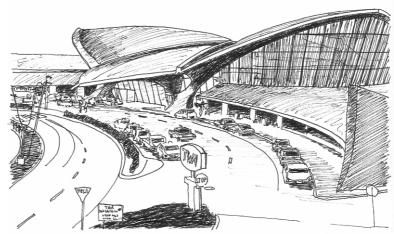


Figure 2. Eero Saarinen, TWA-Terminal, Kennedy Airport, New York

notes an eagle flying away. In these cases denotation is an architectural counterpart to pictorial representation. But that need not be so. A building may (like a flag) denote a state even if it does not pictorially represent it. While in all these examples, the denotation is relatively clear and definite, denoting buildings are often ambiguous. In what follows, it will be shown in what ways they are ambiguous.

### **1.1 Elementary ambiguity**

Let us take language as a model. Here, denotational ambiguity may either concern the abstract sign type or the concrete sign tokens. Type ambiguity is basic, since a type may be ambiguous even if none of its tokens are ambiguous, but the ambiguity of a single token depends on the ambiguity of its type.

Israel Scheffler has presented an inscriptional explication of the basic case which he calls "elementary ambiguity". The explication makes use of neither intensions nor abstract types. Instead of asking whether different tokens are tokens of the same type, in such an approach one asks directly whether they are replicas of each other. That is the case if and only if they are spelled the same (*LA*, 115; Elgin 1983, 25). The explication then reads as follows: two tokens x and y are in a discourse D elementarily denotationally ambiguous with respect to one another if and only if x and y are in D replicas of one another (i.e. spelled the same) and diverge extensionally (i.e. either one denotes something not denoted by the other) (Scheffler 1979, 13, cf. 37). Besides lexical ambiguity, elementary ambiguity also covers the phenomena of metaphor and indexicality. The relativity to a discourse should prevent that a token counts already as ambiguous if there is an extensional divergent replica in another language or a remote context.

The explicated notion of elementary ambiguity is not directly applicable to architecture. It presupposes that several tokens can stay in the replica relation to one another. But buildings cannot stay in that relation because they are not composed of characters of an alphabet and thus cannot be spelled the same. Two ways out suggest themselves.

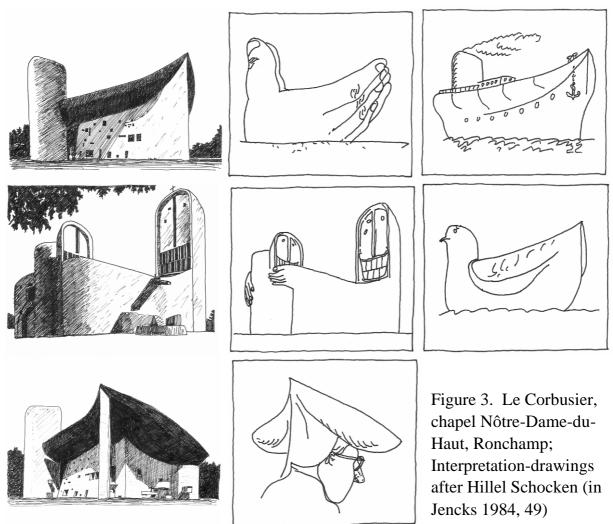
The first consists in replacing the replicas by the instantiations of an architectural work (which does not, as I use the expression, have to be an artwork). A particular building, then, is an instantiation of an architectural work if it complies with the plans of the architect; and an architectural work is a compliance-class of the plans. Such a semantic criterion for the identity of an architectural work is reasonable for buildings of series architecture. The notion of elementary ambiguity could thus be extended to cover such buildings. But, firstly, there will hardly be any buildings which comply with the same plans but differ in their denotation. And, secondly, the buildings described as ambiguous typically belong to a context-specific architecture, the works of which require a historical criterion for their identity. Accordingly, a building counts as a specific architectural work if it is built at the relevant time in the relevant place; and an architectural work is typically an individual building.

However, such buildings have different temporal parts or time slices which can differ in their denotation. A governmental building may at a certain time denote a monarchy and at another time a democracy. It is recommended, therefore, to choose the second way out and take time slices instead of instantiations of buildings as substitutes for the replicas. The time slices x and y are, then, (in a discourse D) elementary ambiguous with respect to one another if and only if they are time slices of the same building and differ in their denotation. This explication calls, of course, for a criterion which determines whether different time slices are time slices of the same building. But such a criterion can be formulated as an expanded historical criterion which also requires a continuous history of the object. It is therefore clearly applicable to the cases of context-specific architecture.

Elementary ambiguity usually dissolves when one chooses a context and thus a time slice. If a time slice is ambiguous in a specific context, then we either have a case of interpretation-ambiguity or a case of multiple meaning. These two forms of ambiguity are the subject of the rest of section 1. Instead of talking of "time slices", I simply talk of "buildings"; and I speak of "buildings" even if the ambiguity frequently concerns only a part of a building.

### 1.2 Interpretation-ambiguity

A building is in a certain context denotationally interpretation-ambiguous if there is an indecision between different conflicting denotational interpretations, each of which makes maximally good sense of the building in the given context. For Le Corbusier's chapel Nôtre-Dame-du-Haut at Ronchamp (1950–55) (Fig. 3), Charles Jencks (1984, 48–49) proposed the following interpretations which may be understood in the sense of denotation: praying hands, a ship, a duck, a head-covering of a cleric and two brothers embracing each other. In order to count as interpretation-ambiguous, a building has to fulfil three further conditions. Firstly, it does not only have to admit several rival denotational interpretations, but also to rule out certain interpretations as wrong. Rorschach inkblots preclude none of the proffered interpretations and do not, hence, count as ambiguous. Secondly, the conflicting interpretations have to concern the building as a whole. This condition is fulfilled if the interpretations concern a view of the building from one side; they do not have to concern the views of the building from every side. Thirdly, there have to be maximally satisfying, though conflicting, resolutions of the indecision concerning the denotation of the building which assign different denotations to the building. If there are no such resolutions, the building is not ambiguous, but only vague (cf. Scheffler 1997, 53). The chapel fulfils the three conditions, because it does not admit of every interpretation, each of the admitted interpretations concerns a view of the chapel from one side, and several (if not all) of them are satisfying in the given context. It does not matter that they gain their pervasiveness only through the drawings by Hillel Schocken which accompany Jencks Interpretations. It does not have to be obvious what a building symbolizes, and drawings as well as descriptions may help us to see what it symbolizes.



So, the general notion of interpretation-ambiguity is applicable to architecture. But it is more difficult to extend to buildings Scheffler's explication of that notion as applied to language. The reason is simple. In order to prevent interpretation-ambiguity from collapsing into vagueness, the indecision concerning a token has to be related to the ambiguity of its type, i.e. to elementary ambiguity. In the case of language, that can be done as follows. If the tokens x, y and z are replicas of each other and y and z have decidably divergent extensions and are thus elementarily ambiguous with respect to each other, then the following holds: x is in a context C interpretation-ambiguous if and only if it will make in C both maximally good sense to interpret x as coextensive with y and to interpret x as coextensive with z(cf. Scheffler 1979, 16; 1997, 30-31, 52-53). But for the same reasons as in the case of elementary ambiguity such an explication is impossible for buildings. And to fall back on time slices does not provide a way out in the case of interpretation-ambiguity, since a building like the chapel at Ronchamp seems to denote different things simultaneously.

The proposed explication could perhaps be extended to buildings by replacing the replica relation by a looser connection between the ambiguous building and other extensionally divergent representations which do not have to be buildings. That is exactly what the drawings by Schocken achieve.

But buildings can be ambiguous even if the conflicting interpretations are coextensive. According to two of the countless interpretations of Frank Gehry's Guggenheim Museum in Bilbao (1993–97), the building represents, respectively, a sea monster with gleaming scales made of titanium zinc metal sheets and a dragon with an immense tail. Since there are neither sea-monsters nor dragons to be denoted, so that both interpretations assign the museum the same null-extension, the indecision between the two interpretations cannot be understood in terms of the relation to extensionally divergent representations. But how can we understand it then?

Now, according to one interpretation the building has null-denotation and is a sea-monster-representation, according to the other interpretation it has null-denotation and is a dragon-representation. The difference, then, does not concern the denotation of the building, but its characterization. Each of the two characterizations links the building to other representations which, in general, differ. The following explication results: a building B is in a context *C* denotationally interpretation-ambiguous if and only if it makes in *C* both maximally good sense to characterize *B* as an *F*-representation and to characterize *B* as a *G*-representation, and *C* does not provide a sufficient reason to decide between the two conflicting interpretations.<sup>1</sup> I add two remarks.

Firstly, the explication makes it clear that in architecture too, interpretation-ambiguity doesn't collapse into mere vagueness, even if the ambiguity of the token cannot be related to the ambiguity of its type here, since there is no such type. While the indecision in the case of vagueness is an indecision whether one should connect a specific characterization with a building or not, it is, in the case of interpretation-ambiguity, an indecision whether one should connect one rather than another characterization with a building (cf. Scheffler 1997, 57). Secondly, the explication is also applicable to buildings whose conflicting interpretations are not coextensive: the chapel at Ronchamp can be characterized both as a "ship-representation" and as a "duck-representation".

### 1.3 Multiple meaning

In the case of interpretation-ambiguity it is assumed that only one of the rival interpretations is correct. If that is so, the rivalry can usually be resolved in favour of one or the other by broadening the original context and importing additional information. In the cases of the chapel at Ronchamp and the Guggenheim Museum in Bilbao, it certainly makes sense to weigh up the different interpretations against each other in order to decide which

<sup>&</sup>lt;sup>1</sup> A more elaborated treatment of the subject would reformulate this explication in terms of mention-selection. This term was introduced by Scheffler (1979, 31–36; cf. 1997, 11–21) to designate a kind of symbolization in which a symbol is applied not to what it denotes, but to mentions thereof. The term "dragon", for example, mention-selects dragon-pictures and dragon-descriptions. As explication we get: a building *B* is in a context *C* denotationally interpretation-ambiguous if and only if it makes in *C* both maximally good sense to interpret *B* so that it mention-selects "*F*" and to interpret *B* so that it mention-selects "*G*", and *C* does not provide a sufficient reason to decide between the two conflicting interpretations. Such an explication in terms of mention-selection has two advantages. It is closer to our way of talking: instead of characterizing the Guggenheim Museum in Bilbao as a "dragon-representation", we just describe it as a "dragon". And it reflects the fact that ambiguity is a property of symbols which concerns their reference, since if a symbol mention-selects another one, the converse holds as well (cf. Scheffler 1997, 56).

are more plausible than the others. But it is doubtful whether a complete resolution is possible.

If it turns out that several interpretations of the same building are simultaneously correct, we have an example of multiple meaning. Here, the ambiguity does not consist in the indecision between one meaning and another, but in a multiplicity of simultaneous meanings. Consider a fictitious example. In Italo Calvino's marvellous book Invisible Cities, Marco Polo reports to Kublai Kahn of a town called Despina which appears different depending on the side from which it is approached. Coming from the land with the camel, the town is seen as a ship which takes you away from the coast; coming from the sea by ship, the town is seen as a camel which takes you away from the desert of the sea to a fresh water oasis (Calvino 1997). In the case of Despina, it does not make sense to try to decide the rivalry between the two interpretations; it should rather be regarded as part of the functioning of the symbol. Someone who catches only one meaning does not catch the whole meaning, just like someone who only sees the rabbit head in the case of the famous duck-rabbit picture misses out on the whole meaning of the drawing.

This raises the problem of showing how a single time slice can possibly have several correct denotational interpretations without leading to contradiction. Neither is Despina a ship-and-camel-representation; because the town denotes what is denoted by a view of the town from one side, it does not contain a ship-representation and a camel-representation as parts. Nor is Despina a ship-or-camel-representation, since it does not simply represent everything which is either a ship or a camel. But it is also not the case that Despina is either a ship-representation or a camel-representation, with us being unable to decide which of the two. We are rather tempted to say that it is both: a ship-representation (as a whole) which denotes a ship but not a camel, and also a camel-representation (as a whole) which denotes a camel but not a ship. But that is contradictory (cf. Scheffler 1997, 58).

The seeming contradiction can be resolved by ascending from the denotation of a label to its characterization, since the characterization of a label does not determine its denotation. A picture may be a dragon-picture without denoting dragons (because there are no dragons to be denoted). Once the link with denotation is broken, there is not longer any inconsistency in supposing Despina to be both a ship-representation and a camel-representation (cf. Scheffler 1997, 61). As for denotation, we can either say that Despina has no denotation or that it denotes both a ship and a camel. As explication we get: a building *B* has in a context *C* multiple meaning if and only if *B* is in *C* both an *F*-representation and a *G*-representation.<sup>2</sup>

# 1.4 Metaphor

Since a symbol with a metaphorical and a literal interpretation has several denotational interpretations, metaphor is a form of denotational ambiguity. However, while in cases of simple ambiguity as discussed until now the interpretations are independent of each other; one interpretation of a metaphor depends on the other: the metaphorical interpretation of a label is guided by its antecedent literal interpretation (*LA*, 71; *MM*, 129).

In the case of verbal metaphor, the different interpretations concern different tokens of the same type. Thus, verbal metaphor is a form of elementary ambiguity (Scheffler 1979, 15; 79). In the case of architectural metaphor, the different interpretations typically concern the same time slice of the same building. Since both interpretations are correct, architectural metaphor is a form of multiple meaning.

Although there are many metaphorical descriptions of buildings, only few buildings function as metaphors. The reason is that a building can only count as a metaphor if it admits of both a metaphorical and a literal interpretation. An example is the temple of the sun, built in the thirteenth century at Konarak in the Bay of Bengal, which has the form of a huge carriage. The temple, let us assume, denotes literally a carriage and metaphorically the sun.<sup>3</sup>

The sun-temple is at the same time a carriage-representation and a sunrepresentation. Thus it has multiple meaning. The first characterization is a literal one and the second a metaphorical one, since "carriage" itself is a metaphor for the sun (cf. Scheffler 1997, 63). Accordingly, a building B is in a context C a metaphor if it is literally an F-representation and meta-

<sup>&</sup>lt;sup>2</sup> This explication, too, could be reformulated in terms of mention-selection: a building *B* in context *C* has multiple meaning if and only if *B* both mention-selects "*F*" and mention-selects "*G*".

<sup>&</sup>lt;sup>3</sup> According to an alternative interpretation, the temple represents metaphorically the Indian sun-god Surya whose carriage the temple denotes literally (Behera 1996, xviii). This second and more common interpretation is less suitable for present purposes since it raises the question whether we face a case of fictional denotation.

phorically a *G*-representation.<sup>4</sup> The obvious circularity in this explanation can be eliminated by combining it with a Goodmanian explication of metaphor (cf. *LA*, 78–80; Elgin 1983, 59–65).

# 2. Exemplificational ambiguity

Examples of denotational ambiguity are exceptions, for the sole reason that buildings only rarely denote. Usually, when buildings are described as ambiguous, the ambiguity in question can be interpreted as concerning exemplification. So, let us now turn to exemplificational ambiguity and start with some introductory remarks on the notion of exemplification.

# 2.1 Exemplification

Consider the notorious tailor's swatch. It is, let us suppose, 10 x 10 cm, blue, of fine texture, made of linen, with zigzag edges. Although these labels, and many others as well, apply to the swatch, it functions as a sample only for those labels to which it refers as well; and these labels are exemplified by the swatch. In customary use, the exemplified labels may be "blue", "of fine texture" and "made of linen", but not "10 x 10 cm" and "zigzag edged". So there are two conditions for a symbol to exemplify a label: it must be denoted by the label and it must refer to it (*LA*, 52; 53; *MM*, 59; Elgin 1983, 73).<sup>5</sup>

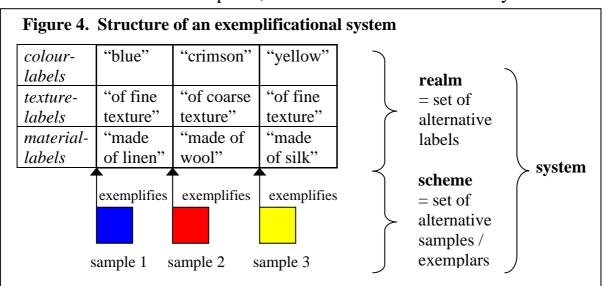
What is often overlooked is that the tailor's swatch functions in customary use as a sample only of a conjunction of labels. Someone who orders materials according to the sample will not be satisfied just by getting something blue. Rather, the delivered goods ought to instantiate also the other labels exemplified by the swatch. Thus, a symbol is a *sample* of the conjunction of the labels it exemplifies; and I suggest calling it an *exemplar* of each of these labels. The swatch is, thus, at the same time a "blue"exemplar, a "of-fine-texture"-exemplar and a "made-of-linen"-exemplar.

Like the interpretation of labels, the interpretation of samples is relative to a system (*LA*, 53; Elgin 1983, 73). An exemplificational system consists

<sup>&</sup>lt;sup>4</sup> In terms of mention-selection we get: a building *B* is in a context *C* a metaphor if it literally mention-selects "F" and metaphorically mention-selects "G".

<sup>&</sup>lt;sup>5</sup> For the question how these two conditions should be interpreted, see the paper by Vermeulen, Brun and Baumberger in this volume.

of a scheme which is correlated with a realm. Consider again the simplified example of the tailor's swatch (Fig. 4). The scheme is constituted by a set of alternative samples, the realm by a set of alternative labels (Elgin 1983, 121). Now, the realm is structured by the scheme. It is, firstly, structured into different alternatives which may serve as the referents of the sample. Thus, "crimson, of coarse texture and made of wool" and "yellow, of fine texture and made of silk" may function as alternatives to "blue, of fine texture and made of linen". The alternatives of a realm consist, thus, themselves of several components which can vary independently. Each component is a conjunct of an alternative of the realm. These conjuncts constitute the referents of the exemplars. The realm is thus, secondly, structured into different components which may serve as the referents of the exemplars. Thus, "crimson" und "yellow" may function as alternatives to "blue". The alternative components constitute the different parts of the realm. For the parts we often have categories like "colour-labels", "texture-labels" and "material-labels" at our disposal; but this needn't be so in every case.



categories: "colour-labels", "texture-labels", "material-labels"

alternatives of the realm: "blue, of fine texture and made of linen", "crimson, of coarse texture and made of wool", "yellow, of fine texture and made of silk"
components of the first alternative: "blue", "of fine texture", "made of linen"
parts of the realm: "blue/crimson /yellow", "of fine texture/of coarse texture", "made of linen/made of wool/made of silk"

Now, the same sample can simultaneously function in different exemplificational systems; and the system in use determines which labels the sample exemplifies. Which system is appropriate depends on the context. In the normal context of selling fabric, the swatch functions as a fabric sample and exemplifies colour-, texture- and material-labels, but not size-and form-labels; in a seminar on symbol-theory, the swatch may function as a sample of a fabric sample and exemplify size- and form-labels, but not colour-, texture- and material-labels (*LA*, 53; *WW*, 64; Elgin 1983, 72–73).

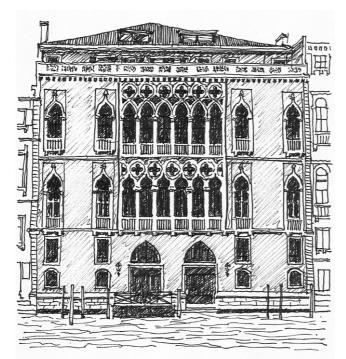
To understand how and what a sample symbolizes, one has to determine the system in which it functions. In the case of architecture, this is far more difficult than in the case of the tailor's samples, since the architectural systems are far less standardized. They are usually less discovered than developed by elaborating an interpretation. In such an elaboration, new labels exemplified by a building can always be figured out. Hence, in the case of architecture, the focus shifts from the level of the samples to the level of the exemplars; from the issue of the alternatives of a realm to the issue of the parts of the realm and the alternatives of which these parts are composed.

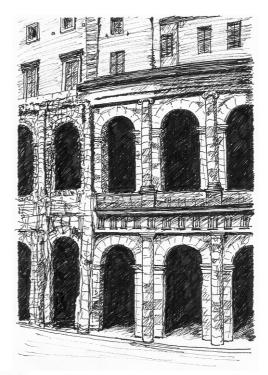
### 2.2 Conditions for exemplificational ambiguity

After these preliminary remarks, we can turn to exemplificational ambiguity. I start with a decisive difference between exemplificational and denotational ambiguity. In the case of exemplification, not every symbol exemplifying several labels is genuinely ambiguous. The fabric sample, for instance, already exemplifies several labels in the standard use without thereby being ambiguous. And a building like Charles Garnier's Opera in Paris (1861-74) may simultaneously exemplify labels like "massive", "overarticulated", "splendiferous", "exuberant" and "pretentious" (Jencks 1984, 71) without thereby being ambiguous. Thus, one has to distinguish between mere multiple exemplification and genuine ambiguity. Catherine Elgin (1983, 79-80) made the following proposal. A symbol has multiple exemplification if it refers to more than one label in a single system; and a symbol is exemplificationally ambiguous if it has different exemplificational interpretations in different systems. In the standard use, the fabric sample has only multiple exemplification; but it is ambiguous since it functions in other contexts as a sample for a fabric sample.

In a given case, there are various ways for deciding between mere multiple exemplification and genuine ambiguity. Such a decision depends on how the system in operation is constructed, and systems can be constructed in different ways. The Palazzo Strozzi in Florence (1489-1507) may simultaneously exemplify "well proportioned" and "unfriendly". If both labels are classified as belonging to different realms, the Palazzo is ambiguous; if they are classified as different components of the same alternative, the Palazzo refers unambiguously to both labels.

Elgin's suggestion, however, cannot be the whole story, because a building can also be ambiguous if it admits of different exemplificational interpretations within the same system. That is shown by the following





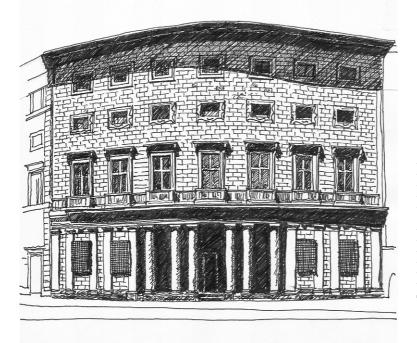


Figure 5, above on the left. Palazzo Pisani-Moretta, Venice.

Figure 6, on the left. Palazzo Massimo alle Colonne, Rome Figure 7, above on the right. Theatre of Marcellus, Rome.

three examples (cf. Scruton 1979, 85–94). The tracery from the central loggia on the upper floor of the Palazzo Pisani-Moretta in Venice (around 1460) (Fig. 5) can be seen both in such a way that neighbouring columns form aedicules, and in such a way that columns joined by the semi-circle of tracery form aedicules. The six columns of the entrance loggia of Baldassare Peruzzi's Palazzo Massimo alle Colonne in Rome (began 1535) (Fig. 6) can be seen both as two pairs and two single columns which form two further pairs together with the two adjacent pilasters, or as three pairs whereby the middle one frames the door and the others agree with the frames of the windows on the floor above. And in the case of a Roman building like the theatre of Marcellus in Rome (completed 13 BC) (Fig. 7), the half-columns and pilasters can both be seen as vertical decorations to the wall and as columns and pillars between which wall elements are filled in. All three examples constitute genuine cases of ambiguity, since in each case there is the same oscillation and tension between the competing interpretations as in the case of the duck-rabbit picture, which counts, according to general opinion, as ambiguous. And in each example the conflicting interpretations belong to the same system, since the labels which are exemplified according to these interpretations are part of the same realm.

As a result, the question arises how we can acknowledge the three examples as cases of genuine ambiguity without thereby being committed to count the fabric sample in its customary use as ambiguous. Accordingly, if a building admits of different exemplificational interpretations within the same system, we have to decide whether it is an instance of mere multiple exemplification or of genuine ambiguity. To do so, it is helpful to ask how in each of the two cases the exemplified labels are related to each other. In the case of mere multiple exemplification, the exemplified labels are different components of an alternative and belong to different parts of the realm. In the customary use of the fabric sample the labels "blue", "of fine texture" and "made of linen" belong to the three parts of the realm we designate by the categories "colour-labels", "texture-labels" and "materiallabels". In the case of genuine ambiguity the exemplified labels are different alternatives of a part of the realm and accordingly belong to the same part of the realm. In the example of the Palazzo Massimo alle Colonne the labels "three pairs of columns" and "two pairs of columns plus two single columns" belong to the same part of the realm we can designate by the

category "column-assigning-labels". The other two examples allow for analogous descriptions.

However, the fact that the exemplified labels belong to the same part of a realm is not sufficient for a building to be genuinely ambiguous, because the parts of a realm can be constructed in different ways. We can, for example, put together the colour-labels and the material-labels to form a part of the realm of the customary system for fabric samples; but that does not make the tailor's swatch in its customary use ambiguous. In order to be genuinely ambiguous, the relevant parts of a realm have to be minimal parts. But how should we determine minimal parts?

My suggestion is the following: labels belong to a minimal part of a realm if and only if they are either contrary to each other or coextensive but of a different kind.<sup>6</sup> Two labels are contrary to each other if there is no object to which they both apply; and two labels are coextensive but of a different kind if they denote the same object but each denotes it as something different from what the other label denotes it as. A label *x* denotes an object *y* as *z* in the relevant sense if and only if *x* denotes *y* and is a *z*-label (*LA*, 28).<sup>7</sup> In the case of the theatre of Marcellus, the two labels are contrary to each other: nothing can be a wall with a vertical decoration in front of it and at the same time a row of columns with wall elements filled in between. In the case of the Palazzo Massimo alle Colonne, the two labels are coextensive but of a different kind: both denote the six columns of the entrance loggia, but one describes them as three pairs of columns, the other as two pairs with two single columns; the same holds for the tracery of the Palazzo Pisani-Moretta.

<sup>&</sup>lt;sup>6</sup> At least verbal labels could also stand to each other in the relation of superordinate to subordinate labels. But this third possibility can be ignored, since a symbol can only in different systems simultaneously exemplify a label and one of its subordinate labels. If a fabric sample exemplifies both "blue" and "marine blue", it will do that in different systems, since according to one interpretation things will match the sample which will not match it according to the other interpretation.

<sup>&</sup>lt;sup>7</sup> A more elaborated explication has to acknowledge both the fact that y may be denoted by x as a whole or by a part of x and the fact that x may be a z-label as a whole or merely through containing a z-label. As a result we get: a label x denotes an object y as z if and only if x is or contains a label that as a whole both denotes y and is a z-label (cf. LA 27–31).

We may call an exemplificational scheme which is correlated with a part of a (minimal) realm a (minimal) "subsystem". Then, the distinction can be made as follows. A symbol which admits of different exemplificational interpretations within the same system is genuinely ambiguous if the conflicting interpretations take place within the same minimal subsystem; otherwise, it merely has multiple exemplification. Taking this for granted, we can formulate two conditions for exemplificational ambiguity which are disjunctively necessary and individually sufficient. A building, or a part of a building, is exemplificationally ambiguous

- (E1) if it admits in different exemplificational systems (but within the same discourse) of different exemplificational interpretations; or
- (E2) if it admits in the same minimal exemplificational subsystem of different exemplificational interpretations.

These two conditions generate for each of the three *types* of elementary ambiguity, interpretation-ambiguity and multiple meaning two *versions* of exemplificational ambiguity.

## 2.3 Elementary ambiguity

To extend the notion of elementary denotational ambiguity to architecture, I suggested replacing the replicas as the bearers of the divergent meanings by instantiations or time slices of the same building. Both suggestions can be transferred to exemplification. But here, too, elementary ambiguity of different instantiations of an architectural work plays virtually no role, since there are, at least in the relevant cases of context-specific architecture, no different instantiations. But elementary ambiguity of different time slices of a building plays a crucial role. I will therefore focus on this second case.

If we transfer the explication given for denotation to exemplification and add the implications of the two conditions (E1) and (E2), we get: the time slices x and y are (in a discourse D) elementarily ambiguous with respect to one another if and only if they are (in D) time slices of the same building and exemplify, interpreted in different contexts according to different systems or according to the same minimal subsystem, different labels. According to this explication, changes in meaning over time are construed as a form of elementary ambiguity. Let us look at an example for each of the two cases.

The Colosseum in Rome (72–80 AC) may serve as an example of the first case. A time slice of it from the period of Roman emperors may, amongst other things, have exemplified "eternal greatness of Rome", a time slice from the Middle Ages instead "transitoriness of all earthly matters", one from the Renaissance "unequalled model" and one from our times may exemplify "tourist attraction" or simply "Rome". These different interpretations obviously belong to different systems.

But different interpretations may also belong to the same minimal subsystem. A time slice of the façade of Marcel Breuer's department store De Bijenkorf (beehive) in Rotterdam exemplified after its opening, amongst other things, "regular" and "even". Due to the impact of weather, a time slice of the same façade from today exemplifies "irregular" and "uneven". In this case, the conflicting labels are contrary to each other, which seems typical for elementary ambiguity. Since different time slices exemplify contrary labels, no contradiction results.

Furthermore, elementary ambiguity usually dissolves in the case of exemplification if one chooses a context and thus a time slice. If a single time slice of a building is ambiguous in a specific context, then we have a case of interpretation-ambiguity or a case of multiple meaning.

### 2.4 Interpretation-ambiguity

A building is, in a specific context, exemplificationally interpretationambiguous if there is an indecision between conflicting exemplificational interpretations, which meet the following conditions: they make, in the given context, maximally good sense, only one is correct and they belong either to different systems or to the same minimal subsystem.

Very little is known about the meaning of the buildings of the Incas. Because there is a lot of speculation, they may serve as examples for conflicting interpretations in different systems. The pilaster-façade of the already mentioned theatre of Marcellus is an example for conflicting interpretations within the same minimal subsystem. In this second case, the conflicting labels are contrary to each other. This seems to be the typical case for interpretation-ambiguity. But again, no contradiction arises, since only one of the two interpretations is correct. For a building to be not just vague but interpretation-ambiguous, the indecision must have maximally satisfying, though conflicting, resolutions which assign different exemplificational references to the building. This can be achieved by relating the building to other exemplars which unambiguously exemplify in their context but differ in their exemplification.



Figure 8. Leon Battista Alberti, Figure 9. Andrea Palladio, Palazzo Chiericati, Vicenca Palazzo Ruccelai, Florence

Again, this relation can neither be a relation between different replicas nor between different time slices. But maybe, analogous to the case of denotation, a looser relation will do the job, since we often specify the conflicting interpretations of ambiguous buildings by relating them to other buildings which exemplify unambiguously. If we bring the theatre of Marcellus in connection with Leon Battista Alberti's Palazzo Rucellai (1446–51) (Fig. 8) whose pilasters are clearly to be interpreted as mere decorations, this supports the interpretation that reads the pilasters and half-columns of the theatre as mere decorations in front of the wall. Relating the theatre to Andrea Palladio's Palazzo Chiericati (began in 1550) (Fig. 9), whose halfcolumns are clearly to be interpreted as columns with wall elements filled in between, supports the interpretation that the pilasters and half-columns of the theatre are also to be read as pillars and columns between which wall elements are introduced.

Unfortunately this suggestion fails for two reasons. Firstly, there are not always corresponding unambiguous exemplars with which the building in question can be connected. The reason is that exemplification is often specific, so that the exemplified labels are found in the exemplifying symbol itself (*LA*, 65; Elgin 1983, 77–87). Secondly, even if there are such exemplars, not every correct interpretation can be specified by saying that the building in question is coreferential with such an exemplar. Because the pilaster-façade can only be denoted by one of the two contrary labels: The pilasters can either be mere decorations or pillars but not both. Now, many theoreticians and historians argue that exactly that interpretation is correct according to which the façade *seems* to exemplify those labels which do not denote it (cf. e.g. Scruton 1979, 93). But that interpretation cannot be specified by saying that the façade is to be interpreted as coreferential with the façade of the Palazzo Chiericati.

The example presupposes that there is something like fictive exemplification. But Goodman stresses that there cannot be such a thing because a symbol can only exemplify labels which denote the symbol (MM, 60).<sup>8</sup> That is, of course, right. But in this sense, denotation cannot be fictive either, because a symbol can only denote objects that exist. Nonetheless, there can be, and there are, fictive labels which admittedly do not denote but pretend to denote. Accordingly, the relevant question in these cases is not what they denote, but rather how they are to be characterized: of what kind they are (LA, 21–26). A label only pretends to denote x if it is an xlabel but does not denote x (since there is no x to be denoted). I suggest that exactly in this sense there can also be fictive exemplars which admittedly do not exemplify but pretend to exemplify. And in these cases, too, the relevant question is not what they exemplify but rather how they are to

<sup>&</sup>lt;sup>8</sup> Goodman acknowledges two cases in which one could speak of fictive exemplification. In the first case the label which exemplifies is fictive, in the sense that it is an actual label with null-denotation. "Pickwick" can in that sense exemplify "clown-label"; and that is, according to Goodman, meant when we say that Pickwick exemplifies clownishness. In the second case the label which is exemplified is fictive, in the sense that it is an actual label with literal null-denotation. That case is possible if, and only if, the exemplified label denotes the exemplifying symbol metaphorically. A man may in that sense exemplify "Don Juan" (*LA*, 66–67). Both cases differ from the pilaster example I am dealing with, where contrary to the first case the exemplar is not a fictive label and, contrary to the second case, not even metaphorically denoted by the label which it seems to exemplify. But this is exactly what, according to Goodman, makes a further sense of fictive exemplification, or exemplars, impossible (*MM*, 60).

be characterized: of what kind they are. An exemplar only pretends to exemplify F if it is an F-exemplar but does not exemplify F (since F does not denote the exemplar).<sup>9</sup> What makes this possible is that the kind of an exemplar determines the exemplification no more than the kind of a label the denotation.

These considerations lead to an explication of interpretation-ambiguity which is parallel to the case of denotation. A building *B* is in a context *C* exemplificationally interpretation-ambiguous if and only if it makes in *C* either according to different symbol systems or according to the same minimal subsystem both maximally good sense to characterize *B* as an *F*-exemplar, and to characterize *B* as a *G*-exemplar.<sup>10</sup>

This explication avoids the two problems of the previous suggestion. Firstly, it does not demand alternative exemplars; it may well be that the ambiguous building is the only *F*-exemplar or the only *G*-exemplar. And secondly, the interpretations are no longer specified in terms of coreferential exemplars, but through the characterization of the ambiguous exemplars. Since the kind of the exemplar does not determine its exemplification, this is even then possible for fictive exemplars. Even if the pilaster façade does not consist of pillars with wall elements filled in between them, but rather of a wall with added decoration, it may still be a pillar-with-wall-elements-filled-in-exemplar.

### 2.5 Multiple meaning

Interpretation-ambiguity can usually be resolved in favour of one interpretation by broadening the original context and taking further information

<sup>&</sup>lt;sup>9</sup> Elgin suggested (in personal communication) an explication which can do without fictive exemplars: An exemplar only pretends to exemplify *F* if it is not denoted by *F* and exemplifies a label like *F-ish* which has in its extension instances of *F* and other instances that are in suitable respects sufficiently similar to the instances of *F*. If this explication allows speaking of *F-ish*-exemplars, it will suit my purpose as well, but I prefer my own explication since the resulting formulations are simpler.

<sup>&</sup>lt;sup>10</sup> The corresponding explication in terms of mention-selection is not transferable to the case of exemplification. Because in the case of exemplification, the labels mentioned would simply coincide with the exemplified labels, so that nothing would have been achieved. Consequently, the two advantages of the explication in terms of mention-selection (cf. note 1) are lost in the case of exemplification. That may be deplorable but it certainly does not constitute a knock-down argument against the proposed explication.

into consideration. Whether that is possible in the case of the pilaster example may be questionable. If it turns out that both interpretations are correct, then we have an example of multiple meaning. Also, in the case of multiple meaning the conflicting interpretations belong either to different systems or to the same minimal subsystem.

In typical examples of the first version, different social groups use different symbol systems. In that way the flat roof buildings of Le Corbusier's working-class housing at Pessac near Bordeaux (1925) may for architects and critics of the modern movement have exemplified labels like "progressive", "user-friendly" and "rational", while they exemplified for the inhabitants labels like "insecure", "unfinished" and "decapitated", as is shown by the modifications the inhabitants made – ground floors were walled up, pitched roofs added, the ribbon windows divided up – so that the houses came to exemplify for them "security", "home" and "ownership" (cf. Jencks 1984, 54–55).

The loggias of the Palazzo Pisani-Moretta (Fig. 5) and the Palazzo Massimo alle Colonne (Fig. 6), mentioned in section 2.2, are examples of the second version. A less obvious and more complex example is provided by the facade which Michelangelo designed for the chapel San Lorenzo in Florence (1516–34). By drawing no less than sixteen figures with different structures emphasizing different axes of symmetry, Colin Rowe and Robert Slutzky pointed out that the façade oscillates between the proposed structures, which the facade exemplifies simultaneously (Rowe/Slutzky 1956, 212–218). Such multiple meaning is, of course, not deplorable. It is rather the result of hard work, as is shown by Michelangelo's design sketches. The overweight of the middle symmetry axis dissolves gradually and makes room for a balanced composition which admits multiple readings. The conflicting labels in the San Lorenzo example, too, are coextensive but of different kinds rather than contrary to each other. The different figures drawn by Rowe and Slutzky all denote the façade of San Lorenzo, but each of them as differently structured.

Do we need an explication for multiple meaning in the case of exemplification, or is it sufficient to describe it as a form of multiple exemplification in which the exemplified labels belong to the same minimal subsystem? Such a description is sufficient as long as the conflicting labels are coextensive and differ only in their kind, as it is the case in the foregoing examples. But there are also examples in which the exemplified labels are contrary to each other. In the case of certain pilaster façades, for example, it turns out that both interpretations are correct. Such cases cannot be understood as forms of multiple exemplification, since the façade can exemplify only one of the contrary labels – the one which applies to the façade. We thus need an explication that shows how such cases of multiple meaning are possible. The explication can be formulated in analogy to the one of interpretation-ambiguity. A building *B* has in a context *C* multiple meaning if and only if *B* is in *C* either according to different correct symbol systems or according to the same correct minimal subsystem both an *F*-exemplar and a *G*-exemplar.

This explication is also applicable in cases where the conflicting labels are coextensive but of a different kind: Even though the fact that something exemplifies F implies that it is an F-exemplar, it is not the case that something being an F-exemplar implies that it exemplifies F.

### 2.6 Metaphorical exemplification

Besides and precisely because of the existence of metaphorical denotation, there is also metaphorical exemplification. When an object exemplifies a label metaphorically, then it is metaphorically denoted by the label and refers to that label. Goodman explicates, as is well known, artistic expression as a form of metaphorical exemplification (*LA*, II, especially 85–95).

In the case of denotation, metaphor is a form of ambiguity which is distinguished from the simple forms of ambiguity by the fact that the different interpretations depend on each other. Metaphorical exemplification, on the other hand, is no extra form of ambiguity, since the dependence between the interpretations does not concern the exemplification, but the denotation. If a church literally exemplifies its cruciform and metaphorically "moved", then the metaphorical interpretation does not depend on the literal interpretation. Rather, the metaphorical application of "moved" to the church is guided by the literal application of the label to literally moved things like blowing clothes or waves.

But, of course, the types and versions of exemplificational ambiguity I have discussed up to now cover metaphorical exemplifications as well as literal exemplifications. For the exemplificational ambiguity of a building it is irrelevant whether the different exemplificational interpretations are

literal or metaphorical. But the cases where a building admits of metaphorical as well as literal interpretations are typically cases of mere multiple exemplification. The church that exemplifies both its cruciform and "moved" is not ambiguous, because while the different interpretations belong to the same system, they do not belong to the same minimal subsystem since the simultaneously exemplified labels are neither contrary to each other nor coextensive but of a different kind.

### 3. Conclusion

Many buildings simultaneously symbolize in different ways: they denote, exemplify and allude at the same time. But that does not make them ambiguous. That a hotdog stand in form of a hotdog simultaneously denotes hotdogs, exemplifies its practical function and alludes to the American way of life does not turn the stand into an ambiguous symbol. Multiple symbolizations have, thus, to be distinguished from genuine ambiguity.

A building which is genuinely ambiguous has different interpretations within the same way of symbolization. Following Israel Scheffler's explication of pictorial ambiguity, I have distinguished four types of architectural ambiguity by three conditions, each of which is based on the foregoing one. Firstly, if the interpretations concern different time slices of the same building in different contexts, we have a case of elementary ambiguity; if they concern the same time slice in the same context, we have one of the other types of ambiguity. Secondly, if only one of the interpretations are simultaneously correct, we have a case of multiple meaning. Thirdly, if one of the interpretations depends on another one, we have a case of metaphor.

The transfer of this scheme to the case of exemplification demands two modifications. Firstly, since not every case in which a time slice admits of several exemplificational interpretations is a case of ambiguity, one has to distinguish between mere multiple exemplification and genuine ambiguity. I suggested that we have a case of genuine ambiguity if the conflicting interpretations belong to different systems or to the same minimal subsystem; otherwise we have a case of mere multiple exemplification. A minimal subsystem is a scheme which is correlated with a minimal part of a realm. Such a minimal part is constituted by labels which are either contrary to each other or coextensive but of a different kind. This suggestion makes it necessary to distinguish for each of the first three types two versions of ambiguity. Secondly, metaphorical exemplification does not constitute a further, non-simple form of ambiguity. In the case both of denotational and exemplificational ambiguity, appeal to characterizations of symbols proved a suitable instrument for their explications.

Many results of the theory presented in this paper are of interest beyond the philosophy of architecture. The proposed structure of exemplificational systems is not specific to architecture, but holds for all such systems. Furthermore, the distinction between samples and exemplars as well as the idea of characterization, which admits of talk of fictive exemplars, will prove useful in the philosophy of the other arts as well. Since we can never be sure that we have figured out all the labels exemplified by an artwork, the focus in the arts shifts from the level of samples to the level of exemplars; and other artworks than buildings can also function as fictive exemplars. Finally, the theory of exemplificational ambiguity presupposes all devices and distinctions mentioned and it can easily be generalized beyond architecture. To get a general formulation, one can simply substitute "symbol" for "building" in the two individually sufficient and disjunctively necessary conditions for exemplificational ambiguity, (E1) and (E2). The same holds for the explications of interpretation-ambiguity and multiple meaning. Elementary ambiguity is somewhat more complicated. In systems with an alphabet, as in our verbal languages, elementary ambiguity typically concerns different symbols that are replicas of each other. Where there are several instantiations of a work, as in etching and design, it typically concerns different instantiations of a work. And where there are neither replicas nor multiple instantiations of a work, as in pictures and carved sculptures, elementary ambiguity concerns different time slices of a given object. To get a general explication, we may introduce a relation R which is either the relation between different replicas, the relation between different instantiations of a given work or the relation between different time slices of the same object.<sup>11</sup>

<sup>&</sup>lt;sup>11</sup> I would like to thank Georg Brun for the fruitful discussions on the subject, Catherine Z. Elgin and Katia Saporiti for their helpful comments, and Ellen Milnes and Dominique Kuenzle for their help with the English version.

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