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Sabine Ammon

# Language of Architecture. Some Reflections on Nelson Goodman's Theory of Symbols<sup>1</sup>

## **Abstract**

This article discusses the status of buildings as works of art. Judging architecture cannot be restricted to aesthetics, since architecture is an extremely interdisciplinary art. As a ‚joint venture‘, the example of architecture shows strengths as well as shortcomings of Goodman's theory of symbols.

When we try to describe architecture, a serious problem arises. As far as the eye can see, there are buildings. People in modern society live in a built environment that encompasses everything from the simple wooden shed to the skyscraper, including the town house, the tenement block and the office block, roads and bridges and landscapes shaped by human design – the list goes on and on. But not everything that is built is architecture. So what distinguishes the mere built from architectural art? In brief and succinct terms, architectural art exists when a building is a work of art. But this answer immediately raises another question: when are buildings art? When it comes to architecture, most popular definitions of art do not hold.

Art is what is created by an artist.

But being an artist's work does not mean that the object is art. Even celebrated architects count among their designs buildings that were simply carried out to keep the architectural firm going. And to explain art as what an artist creates *intentionally* is no help either, as artists can have a wide array of intentions. Having intentions is no guarantee of keeping them!

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<sup>1</sup> Presented in an earlier version at the Congress CATH 2004: Philosophy of Architecture. Architecture of Philosophy, 11.7.2004, Bradford, UK.

Art is what is created using certain techniques and certain materials.

Again, architecture demonstrates the absurdity of the attempted definition. The building trade today is international, and the same techniques and materials are used the world over. Common standards of construction apply regardless whether the building is art or not. The way something is built does not decide on its status as art.

Art is what can be judged by aesthetic criteria.

But an architectural judgement cannot stop at aesthetic questions of shape, proportion, or style. Many additional factors have to be considered: 1. constructional aspects, from structural and technical aspects to the specific realization of details, choice of materials, and physics, 2. economic aspects like the relation of cost and output, 3. ethical aspects of sustainability, the consumption of resources and energy, and the impact on future generations, 4. psychological aspects investigating the relationship of the building to those who live or work in and around it, and 5. sociological aspects considering the consequences of the building for a community. This list is by no means exhaustive; in fact depending on the specific building, other factors differing in priority and relevance may also apply. It is crucial to point out that architecture is more than just aesthetics; it is a composition of a broad variety of needs and demands.

If the art of architecture cannot be defined with reference to the artist, materials and techniques, or aesthetic criteria, what is left? What is it that characterizes architectural art? What distinguishes a work of architectural art from the broad mass of buildings? The aim of my contribution is to tackle these questions with the help of the philosophy of Nelson Goodman.

## 1. The Language of Architecture

Nelson Goodman made an important contribution to the philosophy of architecture with his books *Languages of Art* (1968) and *Reconceptions in Philosophy and Other Arts and Sciences* (1988, with Catherine Z. Elgin). Embedded in a theory of symbols, he is able to thoroughly investigate the arts and sciences as symbolic systems – or, like the book's title suggests – as languages, if 'language' is used in a very general sense. Goodman

structures his investigation on logical considerations, using terms usually restricted to the philosophy of language. This enables him to systematically compare such diverse fields as astronomy, biology, music, and architecture.

His theory is based on a broad notion of the symbol. Symbols can be anything from demands and queries, words, categories, pictures, diagrams, musical passages and performances to buildings (*R*, 155f). According to Goodman, all symbolic functioning goes back to ‘reference’ in its basic sense of ‘standing for’. It is the relationship of “a term or other sign or symbol and what it refers to” (*MM*, 55). In its simplest articulation, a symbol refers to an object, like most of our words do: for example, the term ‘big’ refers to objects of an extraordinary size.

But a symbol is never isolated; it is always related to other symbols. Like colours, symbols differentiate, sort, and systematize. ‘Red’, ‘green’, ‘blue’, ‘orange’, and many other labels divide our visual field into different areas. But none of these categories can act independently; they need their partners to define themselves. In this way, clusters of related symbols are established. These so-called symbol systems can differ significantly in their syntactic and semantic properties. With the help of these criteria, Goodman is able to explain the differences among the various symbol systems – for example, the differences between physics and literature, the everyday world and music, or painting and architecture.

Within this theoretical framework, Goodman pursues two lines of architectural investigation. First, he studies notational systems and their relation to the work of architecture in its ultimate built form. By focussing on the extent to which the plan determines what is actually built, statements can be made about the identification of the building.<sup>2</sup> Further dimensions of this problem become apparent when the whole planning process is examined, which can include everything from the initial sketch to the final plan, tender descriptions, CAD, and scale models. Questions arise as to whether a virtual architectural model can already be considered architecture, and what elements of the planning process determine the form in which the building is realized.

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<sup>2</sup> S. Fisher has investigated this topic in ‘Architectural Notation and Computer Aided Design’ (Fisher 2000).

Secondly, Goodman looks at the diverse ways of symbolisation in buildings. His investigation is centred on the peculiarities of buildings that can be traced back to distinctive features of the symbol system of architecture. As my objective is to be able to differentiate among buildings in greater detail, I will concentrate on this aspect in the following.

## 2. Symbolic Functioning of Buildings

Goodman describes various ways of symbolic functioning, which all originate from two main forms of symbolisation: denotation and exemplification. *Denotation* is the simplest form of reference. When we study our verbal language, the situation is well known: the label ‘building’ refers to buildings. But when do real buildings denote? Denotation can be often found in two areas of architecture. On the one hand, there is the architecture of follies, which were designed to furnish country estates. The entrance of the greenhouse in the grounds of Dunmore Castle in Stirlingshire, shaped as a huge stone pineapple, refers to pineapples; the many sham castles, built from the outset as decorative ruins, denote ancient castles (Jones 1974). On the other hand, we find similar examples when looking at what may be termed ‘advertisement architecture’: the juice shop in the form of a huge orange symbolizes this fruit, the roof of a fish shop in the shape of a fish's body denotes seafood. However, apart from these fields, denotation in architecture is rare. A recent example is the planetarium of Santiago Calatrava in Valencia, which, together with its reflection, denotes an eye composed of eyelid, iris, and lashes.

Another way of basic symbolic functioning is *exemplification*: the “reference by a sample to a feature of the sample” (*MM*, 59). Goodman speaks of features when a label denotes an object. But not each of an object's features is also exemplified. Only if the sample refers back to the label is exemplification taking place. The paradigmatic example of this is a tailor's swatch. The swatch stands for a certain colour or pattern, usually not for its size or shape. Exemplification in architecture takes place when certain features of a building are exposed. Sometimes the construction of buildings is designed to reveal the structure, as architects like Ludwig Mies van der Rohe or Norman Foster did. Here, the construction exemplifies, in its shape, the building's structure and the interplay of forces at work within

it. In more general terms, exemplification occurs when a certain feature is brought out, be it the building's structure, shell, or roof.

Based on these rudimentary forms of symbolization are more complex ways that buildings make reference. *Expression* is a special case of exemplification, a process of symbolization that is often found in architecture. It happens when the denotation of the label is not literal but metaphorical. Deconstructivist buildings metaphorically refer to instability or dissolution, a palace to grandeur, a church to calm. The New National Gallery in Berlin of Mies van der Rohe expresses clarity, plainness, and simplicity through its reduced construction and its straight lines. *Mediated reference* takes place if a chain of related symbol processes has been established. In the above example of the greenhouse entrance, the chain of reference does not stop at the pineapple. During the epoch in which the greenhouse was built, the pineapple exemplified the enormous costs involved in cultivating it, and thus, in a metaphorical way, luxury and the wealth of its proprietor. The shape of the New National Gallery denotes a Greek temple, which in turn relates to a temple of art, an allusion to the Gallery's function as a museum of modern painting and sculpture. With this, I end the short overview of the various symbol processes at work in architecture. The crucial question now is how these forms of symbolization help to distinguish architectural art from mere buildings.

### 3. Symptoms of Architectural Art

When can we speak of architecture as art? Goodman has a straight answer: "A building is a work of art only insofar as it signifies, means, refers, symbolizes in some way" (R, 33). The premise is symbolisation: without symbolisation, no art. Although symbolisation is the basis of architectural art, there are restrictions. Not any reference makes a building a work of architectural art. There are many ways buildings mean that are not connected to architecture. Political or historical events in particular can make buildings signify specific meanings. A building can stand for the birth of a nation, a prison can stand for torture, an estate for wealth. In order to exclude these forms of signification, symbolisation must be understood to somehow depend on the architecture. According to

Goodman, architecture only is art when the building functions as an *aesthetic* symbol.

This specification immediately raises the question of what it is that makes a symbol aesthetic. In Goodman's writings we find a general answer that is not restricted to architecture. Instead of a definition, he indicates several *symptoms of the aesthetic* that “distinguish or are indicative of the symbolizing that constitutes functioning as a work of art” (*WW*, 67). On the level of the symbol, three features occur.<sup>3</sup> First, *exemplification* very often indicates art, through both literally and metaphorically possessed features. Second, *multiple and complex reference* is often related to art. Here, chains of symbols in various functions refer to an object. A third criterion is *repleteness* when not only one, but rather many aspects of a symbol turn out to be relevant. Given a work of art, these symptoms usually are fulfilled. However, they need not necessarily be so, they can also appear independently of one another.

To sum it up: architectural art presupposes aesthetic symbolization. When we return to the example of the New National Gallery, its status as a work of art can be demonstrated with the above criteria. Exemplification is part of the symbolisation and there are long chains of reference. Because not only the shape, but also the structure and many other elements such as columns and facade symbolize, the symbolic functioning of the building can be called 'replete'. When the building refers to other symbols and objects as in this case, when it interacts, then it is a symbol in a system of architecture – or metaphorically: it is part of the language of architecture. Not all buildings are symbols, however: there are also non-symbols and non-referential aspects of symbols (*R*, 156), the paradigm being an ordinary wooden shed. When a structure is inactive, when it does not relate, when it has no language, then it is just a built edifice, not art. It is a mute building.

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<sup>3</sup> On the level of the system, two further symptoms must be mentioned: syntactic and semantic density.

## 4. Judging architecture

So far, the investigation has discussed criteria for aesthetic symbolisation. But considering only aesthetics, as Goodman does in his writings, does not do justice to architecture. As outlined above, architectural art cannot be described according to aesthetic criteria alone. Rather, social, psychological, economic, structural, and ethical aspects must also be included. These aspects are not opposed to aesthetics or architecture, but on the contrary are part of what constitutes architectural art. Only if a design is an intelligent solution to the economic and structural problem at hand are we willing to call the building a successful piece of work. The quality of a building shows not only in its shape and the relation of its parts, but also, for example, in its ethical implications. It is impossible to separate these aspects into different categories, looking for the best solution to each and presenting their final sum as architectural art. All these components are interdependent, and trade-offs must be made to get good results. Architectural art is a highly interdisciplinary ‘joint venture’. There are many different questions and tasks a building is confronted with, but they must all be solved in order to produce a well-made building, a work of art. Therefore, not only aesthetic symbolic functioning has to be considered when we try to identify architectural art. Many systems are at work within it at the same time, many different ways of symbolic functioning are brought together simultaneously.

How can this be achieved? Putting all these different components together is a complex process of interpretation and construction. Any time we discuss architectural art – when we design, when we teach, when we assess architecture – judgements are involved. Judging means testing the symbol, checking its various functions, and trying out its position within the system. A judgement in this sense is an active undertaking; it includes making and creating. But it is not a situation where anything goes. Rather, as Goodman puts it: “Judgements of rightness of a building as a work of architecture ... are often in terms of some sort of good fit – fit of the parts together and of the whole to context and background” (ibid., 46). The fit is constituted by the tension between existing order and innovation, by the breaking of rules and the assessment of new ones. In this way, the different aspects and components are brought together, their limits are tested, and



novel creations emerge. Considering the many systems involved in architecture, the fit has to be achieved not only for one system but for many systems at the same time. Additionally, dependencies and interactions between the systems and resulting effects must be taken into account. Precisely these demands represent the specific situation of architecture which distinguishes it from many other arts: a situation which is not yet adequately grasped by Goodman's theory of symbols. This is left for future research.

## 5. Conclusion

Architecture is multi-disciplinary. Its difficulty, but also its challenge consists in bringing together dependencies, differing demands, and antagonistic methods from such diverse fields as construction, economics, ethics, psychology, and sociology. Nelson Goodman's theory of symbols offers only rudimentary assistance and must be developed further as it remains restricted to aesthetics. However, Goodman has provided a highly interesting approach regarding the problem of differentiation of the building as a work of art, an approach that can be extended beyond purely aesthetic considerations. His answer to the question of what distinguishes a piece of architectural art introduces a new perspective to the discussion of architecture. The way a building refers, the way it builds up multiple contextual relations, singles it out as a work of art. "A work of art typically means in varied and contrasting and shifting ways and is open to many equally good and enlightening interpretations" (ibid., 44). Or, to put it metaphorically, a work of art is able to break the silence, to start a dialogue in its own language.

## References

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