

The Urban Environment: The Role of Sculpture in Architecture

Art Brenner

The rapid increase throughout the world in the rate of metropolitan growth demands recognition of the vital need to balance the elements of the construction equation. 'Man cannot plan the world without designing himself' said an architect,¹ whose thought was underscored by Winston Churchill: 'We shape our buildings and afterwards our buildings shape us.'² The environment created by man's actions moulds profoundly the very form and spirit of our culture: our living, labour, leisure.

'If the materialism of our civilization accounts for the materialism of our architecture, it does not justify it.'³ Thus pressures for new construction and renovation of the urban scene have all too often resulted in *quantitative* solutions alone. A broad humanist view is required to make the environment a dynamic and satisfactory part of human existence. It is within such a *qualitative* scheme that urbanists and architects will enlist sculptors and other artists in a concerted effort to concretize man's images and dreams.

In past centuries the alliance of sculptor and architect was the source of a public art that greatly enriched the visual arena. Yet modern sculpture as a positive element in the environment appears to be either neglected or misunderstood. This is all the more strange since the architect shares with the sculptor an aesthetic based on their common origins as craftsmen in wood and stone and on their mutual involvement with volume and form, structure and plastic relationships. Since both work in real space, their concepts and the terms used to express them are quite alike: they speak much the same language. Tales from antiquity and records from the Romanesque and

Gothic periods indicate that generally sculptor and architect were often one and the same. The work during the Renaissance of such prominent sculptor-architects as Brunelleschi, Filarete, Michelangelo and Michelozzo is further evidence. After that period, however, art and architecture in Europe and elsewhere tended to diverge - a gradual process in which sculpture came to be used primarily as ornament, lacking vital content.

This period also dates the beginning of modern science that provided the base for the industrial revolution in the eighteenth century. Whether there is significance in the coincidence of the alienation of sculpture from architecture and the alienation of man in technological society is an intriguing question.

A clue might be found in anthropological studies that indicate that primitive man structured his society to provide avenues for release of tensions due to unconscious needs and imposed inhibitions. Sculpture in the form of totemic masks and statues played a significant role since totems and the taboos surrounding them were powerful forces in the private and public life of the members of the tribe and served to satisfy collective and individual emotional and aesthetic needs. On the other hand, contemporary society is less attentive to these needs. As a consequence, then, of extreme social-economic-political changes - of modernized civilization - contemporary man, in considerable numbers, has grown retrogressively less in touch with himself and his fellow man. He has lost a considerable capacity to have a satisfying emotional aesthetic reaction to art objects. (This is evidenced by the indiscriminate purchase of art works purely for investment reasons and their subsequent storage in bank vaults and further by the wide diffusion of certain Minimalist and geometric works that raise no issues and thereby permit the purchaser to remain comfortably uncommitted.)

This is admittedly a very limited view of alienation. However, it does appear to approach the heart of the issue: involvement, both emotional and aesthetic. In this sense the value of urban sculpture relates to the basic role - the necessary sanative role - of the artist in society. As such it participates in meeting the demand for socially responsible design of the environment.

Convincing as the argument for public

art may be, the architect appears consistently as the key figure. Sitting at his drawing-table, what is the significance of sculpture for an architect - or a planner? What is involved in incorporating it in a design?

By their very scale, many modern buildings tend to be inhuman: they fill whole blocks, soar to great heights. On the other hand, sculpture - even very large sculpture - tends to relate to the body's height and so serves to humanize the scale of large constructions. Sculpture used as a detail in the unified plan acts to articulate the environment and make its character precise. For an architect, this may aid the resolution of a design problem. For a client, this adds significance and recognition to his building.

In a broader view, the cityscape is often a virtually unified façade since the varied continuity of building faces is the essence of the street. None the less the urban dweller requires significant points of orientation. To satisfy this need, an urbanist might take advantage of natural phenomena such as a mountain or plan for a public building of particular importance, or a fountain, or a sculpture.

Since sculpture can be designated to fulfil multi-faceted functions, it is essential to differentiate the various types of sculpture; these might well be categorized according to the fundamental problem-solving activity of the artist - his intent.

Sculpture-as-object, or 'free' sculpture, is conceived as an independent piece intended to be appreciated solely on its own aesthetic merits. Most statues and monuments found standing free in a landscape are usually such arbitrary objects and have little plastic relationship to their environment; in these verdant areas their object-nature may not be at all disturbing. In the midst of the cityscape or installed in an architectural setting, however, such a work is often of disservice to both for it rarely meets the requirements for relating one plastic volume with another.

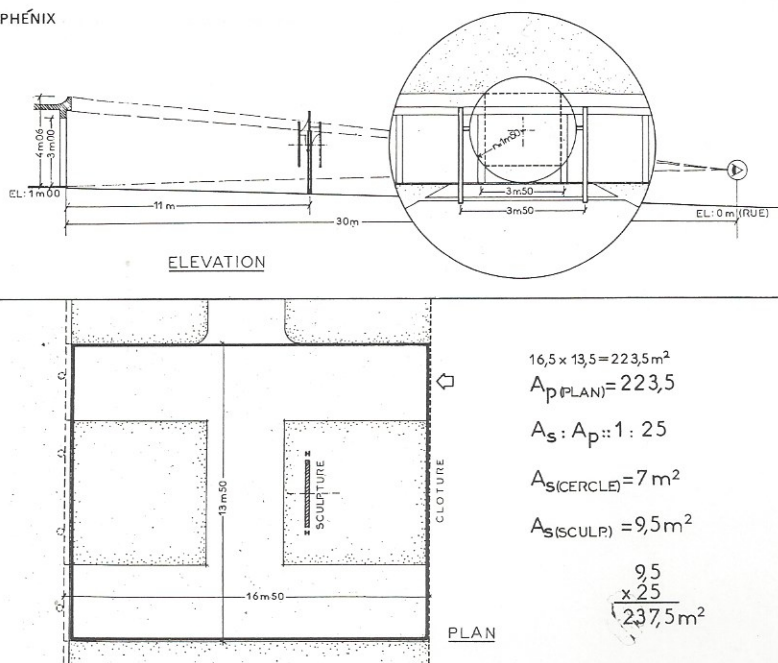
Sculpture-as-architecture is intended to be a 'shell' in which man may live, work, or play: an enclosed sculptured volume seen from inside and/or outside. Its size does not remove it from the need to relate to surrounding architecture, failing which it remains in the category of object. This is apparent when the equally apt label, architecture-as-sculpture, is applied.

Sculpture-as-landscape is a special man-made environmental space in the city.

¹ Rudolf Schwarz. Quoted by C. Norberg-Schulz *Existence, Space and Architecture* (London: Studio Vista, 1971).

² Winston Churchill. *War Speeches* (Boston: Houghton Mifflin).

³ P. Damaz. *Art in European Architecture* (New York: Reinhold, 1956).



In utilizing sculptural elements in place of trees, shrubs, et cetera, it would seem to be bound by the integrating concepts of landscaping as well as of exterior space design. As so few projects have been realized, it may be expected that criteria will develop with experience.

Sculpture-in-architecture is a key category too often ignored, perhaps, in mistaking all sculpture for free objects, or perhaps because of its rigorous demands. Such sculpture is an integral part of the architectural design just as the architectural forms are integral to the artistic conception of the sculpture. Free sculpture and, especially, sculpture used as applied ornamentation are clearly foreign to this concept of integration. In this category, sculpture and architecture are part of a composite design.

Considering the interrelational design factors, the simplest application of a sculpture to a building is probably in the form of a relief, since such a sculpture on a wall participates naturally in the architectural ensemble. The wall, viewed in its scale-relation to the building as a whole, offers sculptor and architect valid guidelines. A detached relief used as a screen or a sign makes ready use of the 'extended' lines of the building design to determine size and proportion, thereby promoting integration. Reliefs are not unrelated to architectural problems of shadow lines in detailing a façade; full-round sculpture parallels architecture more generally in its use of space and volume, creating the more difficult problem of interrelating the whole system.

The coherence in the system is a result of proper interaction between mass and void, between positive and negative volumes. Just as the 'empty space' within a hole in a sculpture is intensified, so the 'void' between sculpture and surrounding architectural forms is a negative volume that is shaped and compressed to take on meaning. Sculpture and architecture clearly reach beyond their own inherent limits to model the space around and between them. Thus the interrelationship of solid and surrounding space modify both and cause a palpable sense of tension or 'charge' between sculpture and architecture. In the scale of sculpture-in-architecture, this charge can dissipate and be lost unless otherwise contained within the invisible, but felt, lines of tension allying the forms of the sculpture to those of the building. These same lines of tension aid in the development of size and

proportion. Of course, affecting the actual size of a sculpture are the 'visual' factors of real versus implied density (or compactness) and colour (or contrast) which, in turn, may be considerations of function and location.

It is perhaps due to a failure to appreciate this reciprocal matrix that most sculpture found in the exterior space of an architectural setting may be observed to be plainly of insufficient size. In fairness, other factors may be operative, such as small budgets, small workshops, or lack of audacity - or all of them - but it would appear nevertheless that basically sensitive design co-ordination has been missing.

This prompted an inquiry into a possible formula. One architect suggested that 'in the design of exterior space a scale of about eight to ten times that of interior space is adequate. This is my 1/10 theory.¹⁴ In this way an intimate (for him) interior space of 3 m by 3 m could be expanded to about 30 m by 30 m and as an exterior space would retain an intimate character. Could the 1/10 theory be applied to sculpture? An 'intimate' piece might be considered not to exceed 30 cm in height. Enlarged ten times to 3 m, it seemed unlikely, in general, to hold its place in a 900 m² space. The theory needed another dimension. In my own work, the architectural module has consistently been a starting-point but this has been primarily in terms of the façade, the vertical plane of interaction, in which any number of salient lines of correlation may be found for determining the height of a sculpture. It was apparent, though, that the size of a sculpture in relation to the horizontal space had been decided intuitively. Investigating my sculptures that were felt to be successful, it was found that, if the area were defined either as real space (actually enclosed) or as virtual space (visually delimited in some fashion such as by a change of texture from paving to grass), a more-or-less consistent relation existed between the area of the major 'face' of a sculpture and this in the order of 1 : 25. The theory checks with other work that I consider successful (at least from this point of view).

These size guide-lines, intended for the design of sculpture-in-architecture, also point up the problems of placing an

already existing sculpture in an architectural context. For obvious reasons, a sculpture that appeared 'monumental' in a gallery or a workshop appears lost once inserted into the organic space. Even the assemblage of several pieces to comprise a 'sculpture plaza' does not often hold the space nor reveal the qualities of each piece. Comparison with a good sculpture garden reveals the validity of this observation and suggests, then, that either the approach to the sculpture should be revised or the concept of a sculpture plaza should be revised.

It is evident from all the above that fundamental to a rewarding venture is the relationship between sculptor and architect. The goal of harmony between sculpture and architecture should not be the burden of the sculptor alone nor be at the expense of his work: such problem-solving should be the mutual concern of both at the very inception of a building project and before decisions and commitments have become firm.

It would be delusive not to recognize the preoccupations of the architect during the early design stages of a project. How, then, is he to select a sculptor? How are they to collaborate? The architect today is accustomed, in discharging his function, to collaborate with a large number of specialists, notably engineers. In like manner, a consultant sculptor could collaborate not only with an early input but also in proposing sculptors, reviewing submissions, and the supervision of construction and installation. Moreover, it should be noted that the architect's consultants are not just engineers but engineer specialists: mechanical, electrical, heating, et cetera and his sculpture consultant should likewise be a specialist. Observational evidence is leading to the conclusion that architectural sculpture is indeed as much a specialty in the field of sculpture as mechanical engineering is, for example, in the field of engineering.

As the architect seeks new forms and new focus in this changing period, so the sculptor looks for a fresh matrix and new symbols to define new purposes. Co-operative effort toward such congruent goals can produce a creative fertilization of the two disciplines that would enrich not only the participants themselves but also the work in which they have been united - and thereby the community.

¹⁴Yoshinobu Ashihara *Exterior Design in Architecture* (N. Y. Van Nostrand Reinhold, 1970).