

## THE CONCEPTUAL BASIS OF BUILDING ETHICS

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The nature of building(s) and people's attitudes towards them are determined by two types of factors: *environmental* and *cultural*. Among the latter, ethical predicates are probably the most influential; not only because they determine how buildings are evaluated by people, but also because they form the basic precepts through which professionals act in designing and constructing them, and through which resources are allocated in competition with other socio-economic needs.

Ethical precepts that dictate action have their origin in the values that people hold. Despite this importance of values in the formation of ethical precepts, there appears to be no well-established, coherent and systematic framework for a discussion of value-related issues in the analysis of building(s). The problem of value has received much attention in philosophy and in the behavioural sciences, where

[N]umerous books have been written on the subject, but [even there] often the reader comes away more confused than enlightened because the author has not defined his terms and has used the concept so loosely and broadly that his meaning cannot even be inferred.

(Kilby 1993: 31)

The problem is addressed here by examining concepts that may be used in a discussion of values and interrelating them to form a framework. It is based on the place and importance of value-related concepts in the life-cycle of building. Prost has supported the same approach:

Rather than speak of architecture in a very general sense from the point of view of aesthetics and technology...the focus [should] be on architectural production... Ethical inquiry in architecture cannot involve individual responsibility only but must consider all social actors and lead to social awareness and responsibility.

(Prost 1994: 152)

The model presented here may appear to be founded on the conception of a professional, industrialised building process, but some reflection will reveal how it can be applied to many different instances of building.

### **A process model of building**

The life-cycle of building is similar to that of a majority of human activities, in that it consists of a four-stage process: *problem formulation*, *problem solution*, *implementation* and *use*. In formalised,

professional building, these four stages correspond, respectively, to planning and programming, design, construction and use. The process is cyclic; most building reaches the end of its useful life for a variety of reasons, and leads, thereby, to a repetition of the cycle in the form of renovation, refurbishing, readaptation of use or completely new building. A graphical model of this process is shown in Figure 12.1, which illustrates one representative cycle.

At the outset, a misfit is recognised between the present state of building and some ideal conditions that are deemed to be desirable for that environment. The former is described in terms of building descriptors, the latter conditions express what kind or level of the pertinent building descriptors are acceptable or ideal. These conditions are obviously bound to people’s conceptions of what is good and ought to be preferred. The misfit may result, on the one hand, from an observed deterioration over time of the state defined by the building descriptors. Alternatively, people’s conception of the desirable conditions may change over time as would happen, for example, with changes in fashion or the socioeconomic status of the occupants. The misfit may be felt intuitively or, as in today’s formalised construction, made explicit in the form of an architectural brief; in either instance there results a building problem.

During design, decisions are made about how a projected state of building should be so that the misfit between the state descriptors and the desirable conditions shall be resolved. The product of design reflects the designers’ interpretation of the problem, as well as their own convictions about the desirable conditions that they deem are preferable in a particular situation. These latter may be, and often are, quite different to those of the owner.

Construction involves a major transformation of materials, energy, finance and manpower into the building product. Characterised by an intense concentration of economic resources, construction necessarily reflects the interests of all the parties concerned. What are considered to be good and desirable during construction are likely to be quite different for owner and designer.

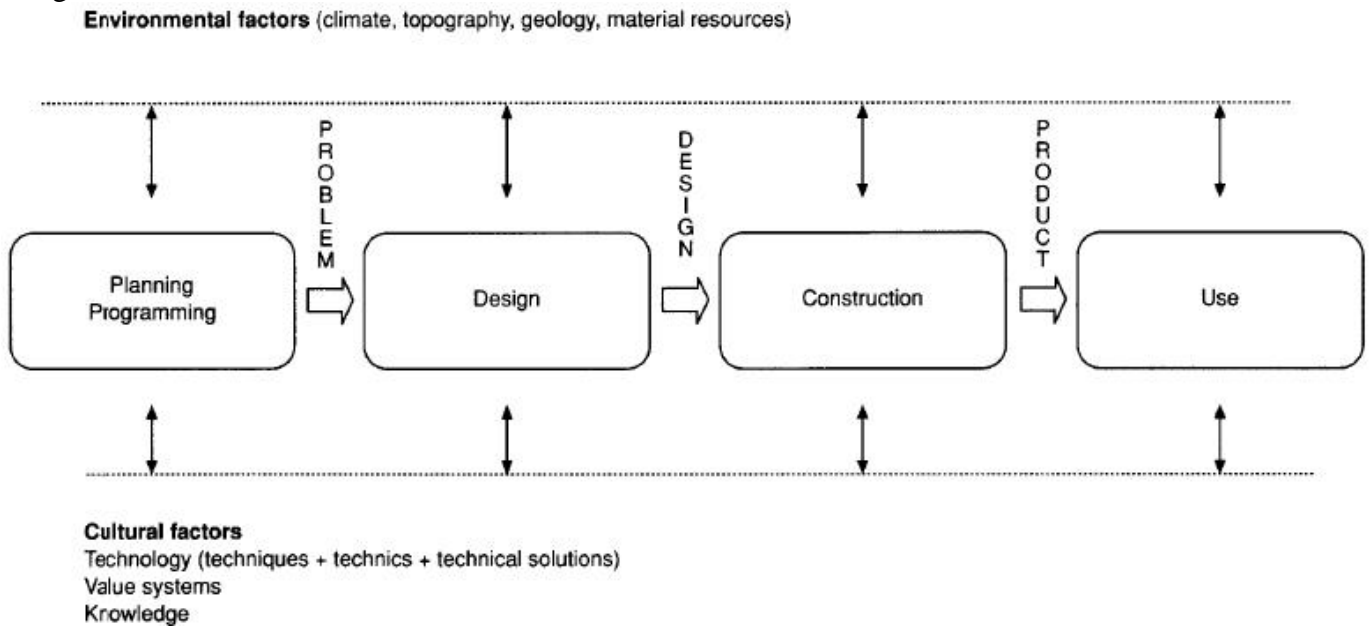


Figure 12.1 Process model of building.

Use is that stage of the building life-cycle where the building’s impact extends not only to the users but also to the social and built environment at large; and this for long periods of time. Very often the immediate users of and the people indirectly involved in building(s) have very little say in its formation until this stage. It may even be the case that they remain unknown until much later.

Building activity exists in interdependence with numerous environmental and cultural factors, with technology, knowledge and value systems forming the basic components of the latter. Neither environmental factors nor knowledge and technology, however, determine on their own or together,

to any fundamental extent, the nature of a building design or the quality observed by the users. What does determine them are the beliefs that owners, users, building professionals and others hold as to what *ought* to be desired and preferred. In essence, these are ethical beliefs, and, in this sense, people's ethical beliefs are the ultimate determinants of how buildings are appraised.

### **Values in ethics**

If ethical considerations in building are to be of any operational consequence at all, we need to view them differently than do the traditional speculative discussions in philosophy, and approach building ethics with a scientific understanding which allows it to be studied empirically. One such approach, which will form the basis of the discussion in this chapter, views ethics as the science of 'oughtness'. Bahm, a proponent of this approach, claims that '[T]he most basic problem facing ethics as a pure science is understanding the nature of oughtness' (Bahm 1994: 3). He goes on to state that the nature of rightness and wrongness, obligation and duty, codes, standards, norms, mores and laws are all related to oughtness, further indicating that these are mere synonyms for it. He regards values as the fundamental notion in a study of ethics: 'Fully adequate understanding of oughtness and rightness involves understanding values' (Bahm 1994: 28).

Bahm proposes:

...as essential to ethics, some principles for choosing...[which] will seem self-evident. All of them can be tested by rigorous examination. All of them presuppose that persons have values...and that at least some of these values can be known and considered in making right and wrong choices.

(Bahm 1994: 27–28)

The said principles consist of the choice of a 'good' over a 'bad', of a 'greater good' over a 'lesser good', and of a 'lesser bad' over a 'greater bad'. By reference to a spectrum of goodnesses, these principles can be consolidated into a single one, namely the choice of a greater good over a lesser good.

### **Values and value judgement**

The question of value has been treated to great extents from philosophical, psychological and economic perspectives. Among these, the approach taken by the behavioural sciences seems, at first, to lend itself to the study of value in building. A widely quoted definition of this understanding of value, given by the anthropologist Kluckhohn, sees a value as a 'conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means and ends of action' (Kluckhohn 1951: 395). This definition stems mainly from work that involves people's personal, social and moral values in affecting their behaviour, and subsequent studies have continued in that vein (Rokeach 1973; Schwartz and Bilsky 1987). Kilby (1993: 31), working from the same perspective, states explicitly that he ignores all of the technical meanings of value except the one in behavioural science – a common trait of such studies. Furthermore, what is characteristic of values understood in this sense is that the thing valued, the precept used in judging it as good, and the act of valuing it, are all fused into the same notion.

Studies of ethics in building, on the other hand, need an alternate conception of value since building is closely connected with technical, socio-economic and perceptual phenomena and since different parties involved in the life-cycle of building do not conceive the question of value in the same manner. There is, therefore, a need to approach the question of value from a wider perspective. The conception utilised in axiology, the science of value in general, allows us to do this.

Citing the work of Hartman (1967), who conceived of ethics as the knowledge of goodness, Forrest defines goodness as ‘degree of concept meaning fulfilment’ (Forrest 1994: 2). This definition implies fit to some ideal or perfect state. Goodness is understood to be variable; there can be different degrees of fit to an ideal. The definition also incorporates the notion of badness and exhibits a gradation from good to bad (Bahm 1993).

The construct which expresses this variability of goodness is defined by Forrest as value: ‘Value is goodness gradation specificity’ (Forrest 1994: 23). Analogous to ‘number’ being a construct for resolving questions of abundance (quantity) gradation, value is a construct, which pertains to questions of goodness gradation. Thus, for any concrete or abstract object which displays a particular goodness gradation, including the binary gradation of good and not good, to define a value which describes that gradation should be possible.

In many instances, values have a hierarchical nature in that some values constitute generic classes; these generic classes may be thought of as incorporating different values that have a common character: a feature of similarity. For example, the value of reliability incorporates the values of functionality and durability, which, in turn, are special instances of reliability. Even these may be thought of as generic classes of other more narrowly defined values. Such hierarchy relations may extend through different types of values and may not be unique.

Traditionally, values have been differentiated as to whether they are intrinsic or operational (Bahm 1993:40–42). Korsgaard (1983) has argued that these are, in fact, two dualities: intrinsic versus extrinsic and operational (means) versus non-operational (ends). Green (1996) has given a discussion of this argument regarding environmental values.

Intrinsic value pertains only to the attributes of the object itself, independent of its circumstances. Many building values such as strength, durability, safety and executional mastery are intrinsic in character. Extrinsic value, on the other hand, resides in the relation of the object to its circumstances (Green 1996: 32). Typical examples of extrinsic values in building can be found in the contextuality of a building in consequence of its site and its historical importance, or in its uniqueness as the sole remaining instance of a particular style in a particular city.

An object has operational value if it is good for achieving an end. To a housing developer, a building has value as a means to profitability; to a designer, computer aids have operational value for achieving consistency. The end value of a building, however, does not appear to be very distinct and seems to coincide with its extrinsic value, as magnanimity is for a corporation.

Values are constructs that associate potential goodness attributes with objects. They do not indicate, however, what form the goodness gradation associated with that value is to take. Value association involves not only denoting the value but also describing its nature and the conditions of its desirability or acceptability. In other words, it also requires establishing its goodness gradation. Rewording Kluckhohn’s definition to read ‘beliefs, distinctive of a group of professionals or users, of the desirable conditions which influences their decisions and perceptions’ provides an explanation of this kind of association. Such beliefs are called *value judgements*, and because they express what ought to be considered good, they are ethical dictates. In building, specifying the structural requirements of strength may be given as an example of explicit value judgement. A social value such as conformity with a particular style illustrates implicitly held value judgements.

These examples highlight a characteristic of value judgements. Even though strength is a value, its goodness gradation can only be established in reference to the load-carrying capacity of a structural system in a building. Similarly, thermal comfort can be established, primarily, in reference to the internal temperature. Thus, value judgements necessitate the association of some building descriptor with the corresponding value. As a naïve example, Figure 12.2 shows the value judgement for thermal comfort in the form of a goodness gradation (level of comfort) associated with a descriptor (internal temperature). This example is a singularly well-defined case because it associates a continuously measurable descriptor with a continuous goodness gradation. Most value judgements, however, simply associate a binary goodness gradation with a value, as is the case for strength: the load-carrying capacity is either above a predetermined threshold (acceptable) or below it (not acceptable). Others may be associated with categorical or ordinal goodness gradations.

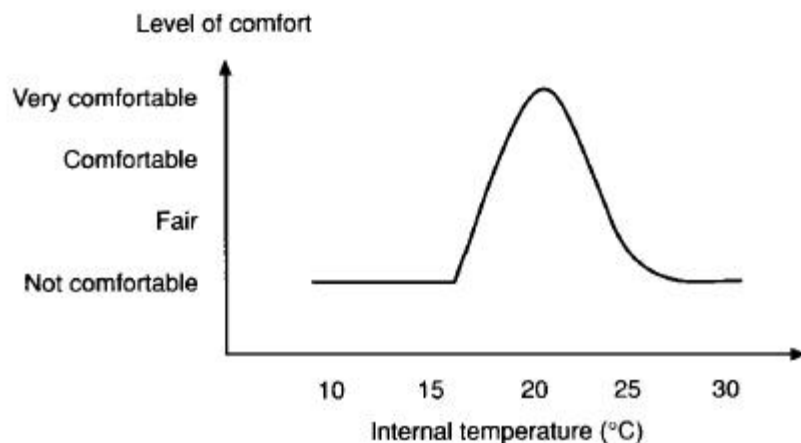


Figure 12.2 Goodness gradation of thermal comfort.

Many of the descriptors related to values in the engineering and economic aspects of building are defined explicitly. Usually this is the outcome of an involved cognitional process and often the product of cultural aggregation in the profess profession. Major problems seem to occur, however, in the association of descriptors with social values and in the measurement of these descriptors. Even though some scales exist, such as the Rokeach (1973) scale of values, few well-established procedures of measurement have been developed for a majority of the behavioural and perceptual values involved in building(s).

### Values and value judgements in building

A convenient basis for identifying and differentiating values is to consider the kind of human needs that they are related to. From this viewpoint, values that affect the nature and outcome of human activities may be classified under three general categories: *technical*, *socio-cultural* and *percepto-cognitional* values.

Technical values are related to the satisfaction of biological and biosocial human needs, as well as non-human requirements. Three generic values in this context are *reliability*, *efficiency* and *compatibility*. Reliability is concerned with the probability that a problem solution will perform its function satisfactorily. In the building context, one instance of reliability may be interpreted, for example, to mean the probability that a building will provide the requisite meso-environmental conditions. Efficiency concerns the ratio of the utility obtained to the amount of the resources supplied. In building, examples of descriptors associated with efficiency are such quantities as amount of useful space or quality obtained per unit of investment, or the thermal efficiency of the heating system. Compatibility is a value related to the inverse of the degree of conflict that the solution implemented will create with the people, and the physical and socio-cultural context, as well as other entities in the environment. A foremost example of technical compatibility is safety. Figure 12.3 shows a preliminary classification of technical values in building. The various lines seen therein are intended to indicate the hierarchy relations among the values as discussed above.

Compatibility also pertains to the general class of socio-cultural values. As shown in Figure 12.4, social compatibility comprises values of past and future continuity, suitability to the social and cultural context, and conformity to good professional practice.

Also affecting the formation and perception of the built environment are percepto-cognitional values, among which may be mentioned the generic values of and users are evoked. For example, such evocation may consist in giving an impression of magnanimity or evocativeness, mastery and 'dishabituality' (see Figure 12.5). Evocativeness is a value related to the extent to which the senses, emotions and intellect of observers (Figure 12.5). Evocativeness is a value related to the extent to which the senses, emotions and intellect of observers historical continuity, or evoking feelings of homely cosiness or community. Dishabituality is a measure of the novelty and the unfamiliarity of

the solution. In building this might correspond to the provision of novel spaces, vistas that people are unaccustomed to and novel uses of materials and other architectural elements. Mastery comprises qualities that are conveyed by formal aesthetic characteristics such as the unity of the design, the refinement in details and the degree of perfection attained in design and construction

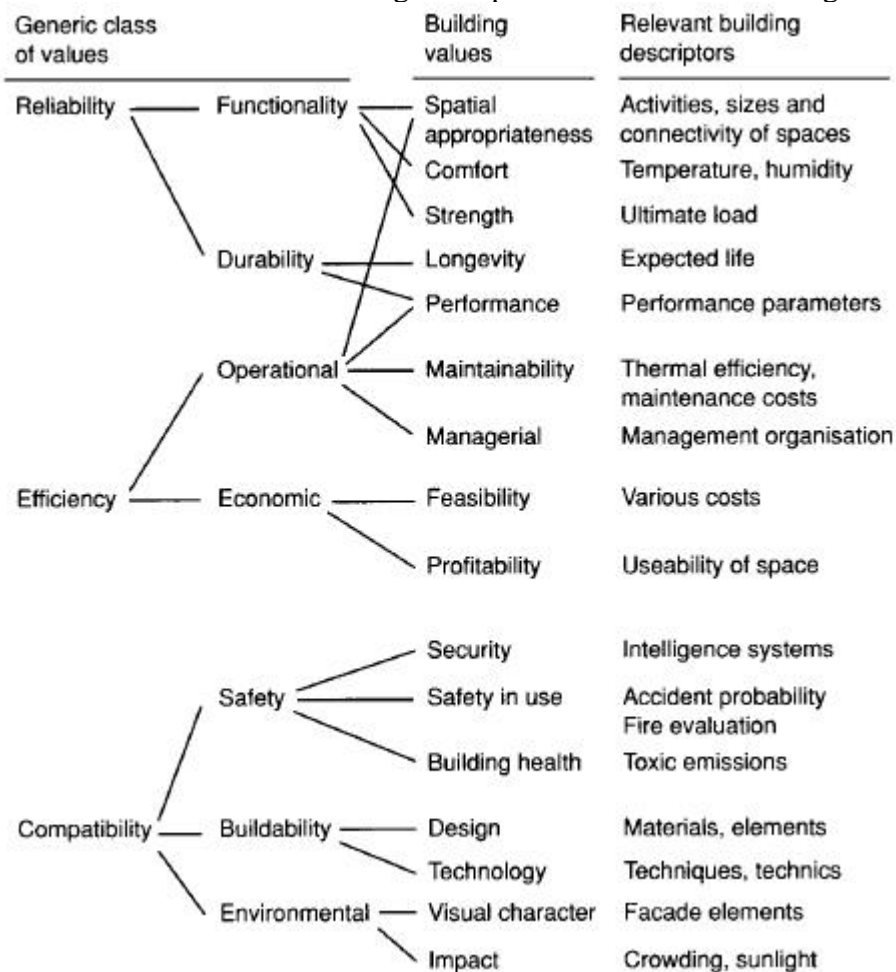


Figure 12.3 Technical values.



Figure 12.4 Socio-cultural values.

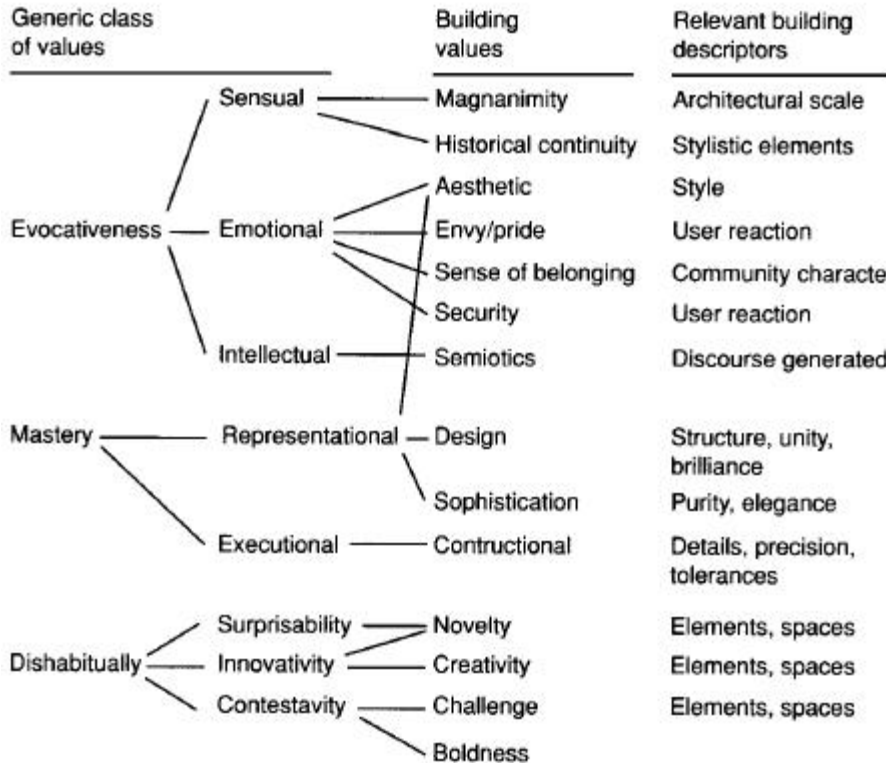


Figure 12.5 Percepto-cognitive values.

In building, there are many values ranging from those associated with structural parameters to those associated with acoustic variables, from material costs to formal aesthetic measures. Several different values fall under the same generic value: for example, the safe or toxic emissions from the building materials and the availability of sunlight in light of adjacent buildings are all instances of compatibility existing simultaneously in building. This diversity in the range of values is a major problem in studies of building values.

Another problem relates to the fact that it is not only building, the product, but the whole process of building, as illustrated in Figure 12.1, that constitutes the subject area of building values. It is not possible to enumerate all building values here, but the short list below may serve to illustrate their diverse nature:

1. compatibility of the building with the physiological and psychological health of the occupants (Day 1990);
2. advantages of the social organisation through which the planning has been achieved, such as a participatory process;
3. extent of the discourse that the building has generated in architectural circles;
4. compatibility with the topography and climate of the environment;
5. innovativity of the techniques used in the construction;
6. appropriateness of the spatial solution *vis-à-vis* the cultural value systems of the occupants;
7. honesty of the building professionals (Manheim 1983).

Value judgements in building are formed mainly through the accretion of successful examples and the practice of criticism. They are disseminated throughout the building professions through education, professional guidance and control, and through society by 'enculturation'. Parallel to all cultural phenomena, value judgements vary through time and in space. Whereas judgements related to technical values have a tendency to remain fairly constant, other value judgements change more often and are more variable from group to group, from society to society.

Explicitly stated value judgements are encountered in the clauses of professional standards, building codes and other codes of practice. Ordinarily, such clauses are not considered as value judgements; and they rarely create much disagreement. Much more controversial, however, are

socio-cultural and percepto-cognitive value judgements which are not expressed explicitly but are carried implicitly by professionals in their individual style of practice or in the cultural accumulation of the profession. In addition to not having clearly defined descriptors, such values have implicit value judgements associated with them and they incorporate their goodness gradation also implicitly, often in binary form. Values commonly used in architectural criticism such as creativity, sensitivity, perceptivity, boldness and brilliance are examples of such values.

### **Value systems**

The value-related features that characterise particular people, groups and societies are not their value judgements, but rather their value systems. A value system is the abstract collection of value judgements held by a person or a group regarding the various values involved in a phenomenon. Within a value system, value judgements do not exist independently of each other; they are related through various interactions and conflicts. As shown by Schwartz and Bilsky (1987), the conflicts that exist between quality judgements and economic interests are very noticeable examples.

Two main questions appear in the formulation of value systems: how to compromise different value judgements and how to aggregate them. Regarding the former, the value system must contain additional rules that prioritise value judgements and dictate when and how precedence may take place. In the case of conflicting judgements, the value system must have means of resolving this conflict. These rules and means will involve preferences among various goodnesses, and are, therefore, in the nature of ethical dictates. Because they express what ought to be done concerning particular phenomena, the study of value systems is essentially a problem in ethics rather than an axiological one.

Regarding the problem of aggregation, it is often helpful to find a common value in terms of which different values may be expressed. Cost is one example of such a convenient value. When such a common value cannot be formulated, various value judgements may be aggregated by weighting them and forming a composite. Somerville, for example, discusses the aggregation of benefit and harm: 'Value judgements are involved here as to what counts as benefit and harm, and as to what weight should be given to each' (Somerville 1994:77). Stern *et al.* (1993: 328) have used a similar approach to model the motivation to act on the environment.

Value systems are more variable in time, and between groups and societies, than are value judgements. It is not difficult to imagine, simply by looking at the types of building values shown in Figures 12.3 to 12.5, that although clients, architects, builders, contractors and local administrators might tend to judge individual values similarly, they will tend to differ significantly in the priorities they give to some of these values over others.

### **Valuation and worth**

The discussion above has been general in character in that no reference was made to particular instances of building. To bring the study of values to an operational level, we need to consider the evaluation of instances.

Establishing the goodness level of a particular instance (i.e. building) on the goodness gradation of a value is a process that may be called valuation. The level established in this manner is the worth of that instance for that value. For example, the structural analysis (i.e. the valuation) of some particular load-carrying system (instance) establishes that its strength (value) is strong (worth). Thus, a building descriptor, mediated through valuation, results in a worth for that building. This example also illustrates some salient features of valuation:

1. Valuation may consist of a procedure varying from a simple one, as can be done by a layperson, to a detailed professional study.



2. It may be done at different stages of the building process and for different purposes: predictively, as during design; selectively, as in an architectural competition; or *postfacto*, as in building assessment.
3. Because the valuation of an actual building will involve many coexisting value judgements, in order to determine composite worth, some procedure of composite valuation needs to be formulated using the premises of value systems.

Overall quality in a building is a typical example of composite worth, incorporating the worth of all values pertaining to a building. Because it is mediated by value systems, it is continuous and variable throughout the life-cycle of the building and also with respect to the groups that are doing the valuation, thus emphasising the essential subjectivity of building appraisals.

### **Some value-related issues in building**

Many of the problems that generate debate on building may be reformulated in the light of value systems. One such issue concerns the conflict that is observed between different groups. For example, there appears to be constant conflict in the valuations and approaches of professionals versus users, in the attitudes of architects versus engineers, in the interests of contractors versus clients. Although it may not necessarily help in resolving these differences, a reanalysis of these problems in value-related terms will certainly be instrumental in understanding them.

Another occasion becomes apparent in building design competitions. Competition documents expressing a problem are prepared by a planning/ programming group that also sets performance criteria and acceptable standards. The actual choice of the solution to be implemented, however, is mediated by the value system of the jury. It is very easy to foresee different winners emerging if different juries are to judge the same entries. The perennial complaints by designers that documents are not clear, or too restrictive, or have not been taken into consideration by the juries are likely to find clarity when viewed in a value-related perspective.

A major portion of the energy that is devoted to education in building goes to forming the value systems of the students. This effort would be better guided by a consciousness of value systems through a study of the values involved and their formation, examining past and present value systems held by different groups. Similarly, value-related analysis may also be used in the studies of designer attitudes and behaviour.

The fundamental value concepts discussed above provide a basis for discussing building ethics. Further progress in ethical issues in building may be attained through the following studies:

1. identifying values in building, and developing operational procedures for value judgement;
2. examining and documenting value systems of different groups involved in building, taking account of variations in cultural backgrounds;
3. observing and documenting changes over time in the value systems of different groups involved in building and the manner in which these changes take place;
4. studies of the formation, dissemination and diffusion of value systems;
5. studies of user groups to document their preferences in choosing buildings and in their attitudes towards them.

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