INTRODUCTION

Physical manifestations of life are plastic and when they fail to suit the requirements of time and place they may be manipulated and changed by man. But that which is intangible is beyond the power of man, existing as a permanent reservoir from which the potential of life may be drawn as the need arises. Beyond the power of manifestation, this unseen factor usually is not only unseen but tends also to be unappreciated. In particular, it is in Laotzu's philosophy that this factor is so fundamentally emphasized.

Ours is a time of material progression and rapid differentiation. For this reason, it seems that two particular problems in the realm of architecture worthy of note and vital in practice are the human quality of physical environment and the harmony and unity of different buildings. As time passed, it appeared clearer and clearer to me that it is Laotzu's active negativism, the philosophy of intangibility, which might give some answers to these two problems.

"The Tao that can be told is not the permanent Tao; The names that can be given are not the permanent names." ¹

(CHAP. 1)

Laotzu is fairly well known in the west today. Unfortunately, since his ideas are expressed in the form of simple paradoxes, their meanings can be easily misunderstood in terms of tangible

¹ All the quotations are translated from Lao-tzu's Tao-te-ching. (Saü-pu-t'ai-ung-k'ai, Commercial Press edition, Shanghai, 1929, vol. 307)
names and words, which are regarded as harmful by Laotzu himself. In the above quotation from his book, Tao-te-ching, he lays down the foundation of his thinking by saying that tangible presentations, particular names and words, have their preconceived meanings, but changing associations according to time and place render these meanings sterile. Regarding reality as what we think it is instead of as what it is, Laotzu develops every variation of his thinking according to relative viewpoint, the theme most brilliantly presented by his follower Chuangtzu:

"Limited by space, a frog in a well cannot understand what is an ocean;
Limited by time, an insect in summer cannot understand what is ice."

(FROM THE ESSAY "AUTUMN FLOOD")

Yet, Laotzu's conception of relativity is in an organic sense. To gain and to lose are regarded as parts of one thing. In one example, Laotzu describes the organic change in nature in terms of the changing form of a bow which is widened when its ends are pushed closer. A layman can understand relativity better through knowing the changing form of a bow. In many other paradoxical examples, Laotzu gives a truer picture of life as an interchange and flowing experience in which nothing could be permanently held or absolutely known.

"Without allowance for filling, a valley will run dry;
Without allowance for growing, creation will stop functioning."

(CHAP. 39)

Since growth is regarded as the basic function of everything alive, anything which is complete, perfect, and cannot grow and change is by definition dead. Laotzu's idea of life and of the function of nature is that all things are springing from nothingness, growing from incompleteness toward their fullest maturities, and thereby becoming deteriorated. Aware of this eventual and inevitable deterioration and the invalidity of the absolute value

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of any tangible being in terms of names and appearance, he suggests affirmatively that the way to face reality is to be content to accept the negative side of being as well as the positive side, and to leave completion to nature.

The wisdom which reveals this insight is: since any aspect of reality is only what we think it is from a certain viewpoint and has no real definite being, there is only self-contentment and not self-sufficiency in any conceivable being existing in human life in particular and nature in general. It is by containing the non-being as a positive means that self-contentment could become self-sufficiency. With regard to humanity as a whole, therefore, Laotzu is for modesty, tolerance, and impartiality. Yet, ironically, even over-assertion of his philosophy may fail us. Regarding non-being as an absolute end, his follower Chuangtzu goes to the extreme of this line of thinking and is so indifferent to the difference between a beginning and its corresponding ending in anything as to deny the process of life itself. This viewpoint which amounts to a philosophy of total non-existence is beyond the power of many to grasp. From the position of an architect of our day, I am interested in accepting from Laotzu the practicality rather than the conventionally interpreted philosophy of inactivity in life as a whole.

It is interesting to note, however, that Laotzu does not limit the application of the process of growth and change to any particular realm of nature. The Tao, the general intangible being of creation, manifests itself in physical, biological, and psychological substantiations of which in each case the Te is the intangible being of the particular manifestation. The clarification between these two intangible beings (one provided for all and the other given to individuals) convinces us that things are created equal (all from the oneness of Tao) but different (specific manifestations of Te). Beyond the mere implication of infinite plurality of specific genera in humanity, the idea of non-being suggests that physical and psychological manifestations are as lively as biological ones because nature is an organic whole in which terminological and homological demarcation is temporary and untrue.

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“Reversion is the action of Tao.
Deficiency is the function of Tao.”

(CHAP. 40)

To understand Laotzu’s idea of nameless process of change, consequently, it is necessary to know that it concerns the opposite states of being and non-being, not the tangible states of being in terms of name and appearance. Thus, death is considered as only the non-being of life similar to the state of life before birth. The intangible being of a thing, therefore, may be interpreted as that which is the obvious complement to the “thing,” giving it inter-related and reversible oneness and full reality. Whiteness and blackness are suggested as opposites because eventually the eye which looks on white tries to supply black as a balance. More specifically, Laotzu implies that ignorance and intelligence are opposites because through subjective enlightenment or objective revelation, extreme intelligence or wisdom will produce impartiality and amount to deliberate ignorance.

In any case, according to the relative point of view, what is called positive is merely the end either conventionally emphasized or specifically expected. If white be called positive in one place in contrast to black, it could also be called negative when black is valued from another viewpoint. Or, according to the degree of manifestation, we may say that the tangible aspect of a thing is positive and the intangible aspect of a thing negative. The order could be reversed.

This order of reversion appears realistic to us when we relate the principle of Laotzu to the interaction between any conceivable pair of opposite states of “things” in nature. We will see that, as exemplified by the interdependency between male and female, every individual thing has its insufficiency, the negative and intangible content.

This intangible content in “things,” though not materially manifested, is regarded as something REAL. In Laotzu’s text, it is called the “formless form” or the “intangible phenomenon” (Chap. 14). As vague as it seems, to grasp its reality, one need only think of a female image in a man’s mind or vice versa.
Similarly, one pole of a magnetic field or an acid is not self-sufficient and has its intangible opposite. The meaning as well as the vitality of "things" in biological, physical, and psychological aspects exists in the combining of a pair of obvious opposite beings, each not having the attributes of the other and each needing the other.

The basic idea of Laozi's thinking is, as has been said, that once the point of tangible fulfillment is reached, the potential of growing is exhausted. He speaks for a factor which by its intangibility leaves an almost unbounded possibility of change for further development. This general point is most powerfully expressed in terms of the constituency of physical space:

"Moulding clay into a vessel, we find the utility in its hollowness;
Cutting doors and windows for a house, we find the utility in its empty space.
Therefore the being of things is profitable, the non-being of things is serviceable."

(CHAP. 11)

This statement in relation to architecture suggests that the immaterial, that which is likely to be overlooked, is the most useful. Void, conventionally regarded as negative, actually is more important because it is always capable of being filled by solid.

But physical void as such is still meaningless to us because although physically man, an everchanging being, lives in space, psychologically he lives along the dimension of time. Time, although intangible, is more intimate to man because it is more sensible within human organism itself and primarily makes up the continuity of life. Consequently, with or without conscious consideration, architectural composition is based on the time factor for both physical function and psychological experience. With time as the main factor of organization, architecture could be defined as "spatial expression of human life and experience in time."
Probably it is due to human consciousness of temporal limitation of life that organization of living space cannot exclude the somehow ambiguous maxim of "Convenience.” One way to clarify this ambiguity is to assume that a minimum amount of time for circulation is desirable and therefore when circulation frequency is high, distance must be short enough to compensate for the shortage of time. Thus, when circulation speed is constant, a functional space which is more frequently used and absorbs more circulations should, comparatively, be placed closer to the center of circulation of a composition.

By so reasoning, we see that of two classrooms of the same capacity, the one which is continuously used on a one-hour basis probably needs more centralized location than the one which is used, also continuously, on a two-hour basis.

But let us consider an element which is only periodically or contingently used.

"Although a sage travels tiresomely all days, he never leaves the burden of his provision cart." (CHAP. 26)

It is true that, primarily, Laotzu is aware of the liability of tangible provision and is for sufficiency in simplicity. Searching further in the domain of intangibility, however, we also find his awareness of simplicity without unpreparedness. To him, as suggested in the above statement, the thing not being used is usable and a thing which is not tangibly occupied could be considered, to a certain degree, as being intangibly occupied.

It thus becomes logical to assume that the location of a functional space in a composition is determined not entirely by actual frequency of use, but also by the desirable potential preserved for unforeseen service. To justify the central location of a firehouse in a town, for example, one has to imagine that moment after moment an intangible fire engine is leaving, though actually it is kept unmoved. It was by considering what is not being used as a part always having real function that Tokyo Imperial Hotel was saved from a fire.
An unused allowance of time-space occupancy in a composition is what makes it possible for a man to move in architectural space without any time limitation. Without this intangible content, readiness, functional space would become rigid and devoid of life quality.

It is possible that by comparison of potential service frequencies of different functional spaces, a framework for the functional organization of a composition could be specifically established. At the moment, the estimation of intangible service frequency of a functional space, particularly when various organization levels are involved, is so intricate, so arbitrary that it can be judged only on the basis of experience and in accordance with specific viewpoints and conditions. For this reason, the problem of functional organization will not be dealt with in further discussion.

Even so, the aspects involved in the problem of psychological experience alone are many. As an architect, I am limiting the scope of this investigation to cover the area that an architect should consider in visual composition. Because the profundity of Laotzu’s thinking lies in its simplicity of reasoning, however, it requires analogical thinking to arrive at an understanding of the possibility of using his ideas in dealing with so many trivial as well as important matters in architectural composition. It is by analogy, alone, that the all-embracing principle of Laotzu’s philosophy is utilized as the main structure of thinking for this investigation.

Through non-formal contemplation, I am inclined to believe that it is the existence of intangible elements, the negative, in architectonic forms which makes them come alive, become human, naturally harmonize with one another, and enable us to experience them with human sensibility. This is the basic viewpoint of this investigation.

Since according to the principle of relative viewpoint an architect must not be subject to an absolute rule, this investiga-
tion deals mainly with intangible content as the means of a composition. The principle of using negative means (intangible content) to achieve positive end (what is expected) originated from Laotzu. However, I must be held responsible for the specific interpretations and the suggested methods in connection with the application of the principle.

The material of this investigation has been accumulated by direct experiences with architectonic forms. These experiences consist of many intricate and moving images existing in the mind, the domain which is always beyond tangible representation. The result of this investigation, therefore, can exist in its fullest reality only in the minds of those who apply the principles involved in their own ways.