

Design History: An Alternative Approach

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Part 1: Concepts of Modern Design and Design Education in a Newborn Nation with an Ancient Culture.

At the outset, let me say that what follows is based entirely on my personal teaching experience at the National Institute of Design (NID) in Ahmedabad since its founding in 1962. Its unusual but clear mandate was to equip young aspirants with design knowledge, skills, and attitudes to address design problems of a newly independent nation whose lifestyle still drew substantially from ancient cultural traditions.

Besides responsibility for a faculty-training program in industrial design, I was entrusted with the task of formulating curriculum and course content for the proposed Professional Education Program at the undergraduate level. I became interested in design history, and discussions with my colleagues invariably centered on two obvious points. First, what the history of design meant in the Indian context in general and with respect to the NID education in particular. Second, if there was to be a course in design history, how should it be taught, since the new institute was dedicated to new forms of teaching and learning, where teachers created an ambience in which learning took place?

Two developments: Chandigarh as the new capital of Punjab when international modern design arrived in 1952 in the form of Le Corbusier and associates; and the NID, where design education was established based on the proposal by Charles and Ray Eames,¹ eventually helped define modern design in the Indian context. These are only two of many links in a long chain of transition that began with India's independence in 1947, and her resolve to catch up with the rest of the world and to usher in modernity in the best sense of the word. There is an inescapable parallel between two kinds of superimpositions that took place at the same historical time: the imminent mechanization of carefully chosen craft production methods that must function smoothly along with their traditional counterparts, and the concept of modern design introduced with the clear objective of coexisting with traditional design ethos and idioms.²

Part 2: Design and History: A Search for Equivalence

The concept of coexistence warrants further evidence. On the one side, we have the idealism and conventions of practice and learn-

1 Charles and Ray Eames, *The India Report* (Ahmedabad: National Institute of Design, 1997).

2 See S. Balaram, "Design Pedagogy in India: A Perspective," *Design Issues* 21:4 (Autumn) 2005: 11.

ing ascribed to modern design since the beginning of the twentieth century. On the other, we have the design ethos and idioms that have been a part of a tradition at least three millennia old.³ What must not be overlooked here is the fact that the ethos and idioms, unlike their counterparts in Europe and many other parts of the world, still are alive today, and they have functioned all along with the inevitable processes of industrialization. Though mechanized industrial production at a very rudimentary level first appeared in India in the second half of the nineteenth century, it accelerated at an exponential rate immediately after Independence.

The traditional design thinking is rooted in a concept of *kalaa*,⁴ which suggests a unity among all human arts, skills, sciences, and techniques. It is known that the last of the four Vedas, the Atharva, has as its more worldly, even scientific, appendage a treatise on *sthapatya*,⁵ meaning the science of construction. The treatise discusses developments of objects, built spaces, and images using different materials and methods. This is the very first and obvious source for *kalaa*. This concept of *kalaa*, with its sense of universality and integration, lasted until the European concepts of art and craft as two separate entities were brought to India when the British set up their arts and crafts schools complete with the ongoing debate on the “fine” arts and crafts, and the craft object vis-à-vis the machine-made object. All this diminished the original meaning of *kalaa*, since most people now use it to mean only plastic arts.

Given this experience, can the way one searched for an Indian equivalence to the concept of design also work for history? Examined with enough care and patience, one senses the existence of a peculiarly Indian historical perception, though not immediately obvious nor even relevant. The reason is simple. By now, “modern” Indian historians have comfortably and almost totally adopted the European concepts and practices of history and historiography. Yet buried not so deep under the Indian psyche, there is a perception of history with hardly a parallel in other cultures. Today, the Indian word (of Sanskrit origin) regularly employed to translate the concept of history is *itihas*, which goes all the way back to the great Indian epics. It generally is believed that the essential history, or *itihasa*,⁶ is the contents of the two most popular epics: the Ramayana and the Mahabharata.

Even today, the lives of the majority of Indians are directly—or indirectly, depending on the degree of urbanization—influenced by the contents of these two epics. Both essentially profess one thing: *dharma*, which means living one’s worldly life in accordance with the cosmic order. Living in this country, one always is aware of a subconscious yet universal feeling that says *itihasas*, more than cold records of the past, have a better and more relevant role to play, that of helping an individual and the society toward this very goal. Hence, it has always proved a meaningless exercise to debate the authenticity and chronology of events recorded in the *itihasas*. On

3 See Lalit Kumar Das, “Culture as Designer,” *Design Issue*, 21:4 (Autumn 2005) for further discussion of cultural traditions.

4 H. Kumar Vyas, *Design the Indian Context* (Ahmedabad: National Institute of Design, 2000), 36–38 also for comparison between the concepts of *kalaa* and the European concept of art.

5 R. S. Nathan, *Our Heritage, Book II* (Calcutta: Chinmaya Mission, 1979), 23, chart IV.

6 *Ibid.*, 13–15.

the other hand, there has always been recorded evidence from the post-epic periods that people keep referring to. But it did not seem important, and therefore was not preserved as meticulously as it was in European or Chinese culture.

Here is a rather audacious question: with the concepts of *kāla* and *itihāsa* juxtaposed, respectively, with those of design and history, can any kind of design history in the Indian context afford to ignore them entirely? The question sounds more audacious when one knows that both academic and design learning in modern India hardly ever takes notice of these two.

Part 3: Design History also Explores the Historical Basis of the Design Process

A digression is necessary here in order to appreciate an aspect of design history that can only be described as universal. How would the history of design be perceived from the vantage point of the history of humankind? This way would not allow design history to confine itself in the cocoon of modernity and the modern movement.

Imagine backward time travel in the spirit of enquiry to bring us face to face with our primordial ancestor. Arguably, the history of design has its roots in the history of human needs, possibly as ancient as the primeval needs that caused the newly evolved *Homo sapiens* to innovate the basic tool and the basic language. “Structured” spoken language is a powerful means of communication and “structured” shelter possibly soon followed. These events celebrate the birth of a unique human faculty of innovation for survival. As the story of humankind goes, thus began a chain of innovations that led to an important historical process: that of modifying the natural environment to create what we now call the manmade environment, eventually acting as a counterpoint to nature.

Forward time travel would bring us to a point in history some ten thousand years ago when human beings, following the development of agriculture, decided to stay put. The multiplicity of human settlements that followed carried seeds that later flowered in several great civilizations on earth: the built spaces and object systems, means of transportation and production, languages, scripts, signs, and symbol systems. All these inform us of the very same primordial instinct, survival of the human species through innovation, with the added imperatives of perpetuation and prosperity of the species.

If we accept the premise that this instinct of survival through innovation has an analogical relationship with the concepts and concerns associated with modern design, then the process by which those devices helped define manmade environments throughout the great civilization was a design process in its own right. Every solution that evolved did so over a period of extended time. Therefore, we would be justified in calling it an evolved design process.⁷

7 Vyas, *Design the Indian Context*, 22–24.

Precisely because of the extended time frame involved, this design process naturally can not be perceived in any separate, well-defined stages. However, at any given point in human history, examining any of the devices is bound to tell us a similar “design story,” providing the right questions are asked—such as the kind of questions the Eameses asked in the “India Report” to illustrate the process of designing the ubiquitous Indian pot-form, the Lota.⁸

There still are three more reasons for the “unstructured” quality of the evolved design process. Protracted over a considerable length of time, it also is an organic process seldom employed self-consciously. This makes it impossible to learn in a structured educational environment, except within the time-tested ambience of master and disciple interaction. Last and most important, it is the result of a collective contribution by many anonymous designers representing several generations.

For these reasons, the design solution would involuntarily accumulate the aspirations and concerns of each generation which, in turn, would be most sensitively expressed in the very multiplicity of functions—physical, psychological, socio-cultural, and even spiritual. Undoubtedly, it is the evolved design process that has been speaking to us all these years through the best craft work in all parts of the world. One sees it at work even now as a disguised legacy of *kalaa* in all craft production situations in India and in several other countries where the age-old craft traditions are still alive.

Our acquaintance with the evolved design process cannot be complete without contrasting it with the now familiar, yet comparatively new, process consciously employed by the modern practitioners of design. I would call the latter the learned design process⁹ because it is self-consciously acquired by an individual design aspirant within a well-defined time frame. The nature of the learned process is such that, whenever employed, it has to be deliberate and methodical and, unlike the evolved process that may straddle generations, it is time-telescoped and encapsulated. For obvious reasons, it abhors anonymity.

The conclusion here is simple. The history of design cannot afford to exclude as an integral part the history of the design process.

Part 4: Learning Design History: An Unconventional Approach

A conventional course in design history is, by necessity, a linear chronological account of design styles, movements, and schools of thought exemplified by the works of design personalities throughout the ages. One would not expect such a course to discuss designers’ problem-solving processes and their historical development as discussed above. Nor would it dwell upon the history of design education and pedagogy, such issues being thought too specialist, and thus often left out.

8 Eames, *The India Report*, 4–5.

9 Vyas, *Design the Indian Context*, 22–24.

I hasten to clarify that I am not ruling out the obvious merits of the conventional method of learning design history. I am quite conscious that a chronological account of design events and designers' works is a very good way of putting developments of such nature in their temporal perspective. But I contend it is possible to learn design history at two levels, that is, in two sequential phases. What I find missing is the first phase, which should help explore the topics mentioned above. But more important, this approach promises to be a vehicle for a discussion of the historical imperatives specific to the design idioms and ethos of a particular culture or community.

The learning method that can be employed with advantage for this first phase is neither periodic nor stylistic, at least not in the conventional sense. In fact, it was recommended as an alternative method by the eminent design historian Siegfried Giedion in his 1948 book *Mechanization Takes Command*.¹⁰ He called it a typological approach, and suggested that the students of history, instead of immediately exploring the design styles and personalities, should initially investigate the history of a preferred "type." Simply defined, a type means a design solution that exists and functions in one's immediate environment. A type should be either an object or an object system, a built space for a specific function, or a communication or transportation device. In short, it includes all of the elements of the man-made environment that designers generally deal with during their careers. But the meaning also could be extended to include a service (e.g., a water supply system) or a human concept that implies a device (e.g., money). Giedion's hypothesis required the students to examine each type from the point of view of its origin and the subsequent changes in its style as it traveled through time, while being subjected to changing technologies and social conditions.

Inspired less by the content than by the spirit of Giedion's suggested approach, I had earlier devised a few exercises that I later developed into a course. It was offered to at least four groups of students at the NID in the late 1980s. Since 1992, in a slightly different, and in my mind improved, format, it is being offered regularly to the students of the School of Interior Design (SID) at the Center for Environmental Planning and Technology (CEPT) in Ahmedabad.

The current course begins with several unstructured discussions on specific topics directly related to the central theme. The topics, as discussed above, include the following concepts: perception of history in a given culture (here, in India); conceptual equivalence to design in the traditional culture of India; primordial human instinct of survival through innovation seen as an analogy to the modern concept of design; the evolved and learned design processes; and the need for an unconventional method to learn design history (i.e., the typological approach). These discussions build a conceptual basis for a major assignment that takes up the second half of the course.

10 S. Giedion, *Mechanization Takes Command* (New York: Oxford University Press, 1948), 10–11.

A small change of name was found necessary almost from the beginning. "Type" was not a familiar word to the students to represent all those elements of man-made environment. Instead, the more familiar and business-like word "device" was adopted. While introducing the major assignment, it was agreed that each of these devices was a solution to a past problem of design. Also, these solutions are likely to be evolved, but not all of them.

Accordingly, each student selects a device which preferably has something to do with a typical Indian environment. The catch here is that all present man-made environments in India rightly represent a mixture of old Indian and new "international" cultures. To my mind, not insisting on only traditional Indian devices makes the selection that much richer. One small condition is that the selected device should have a sense of completeness, that is, not merely be a part of a whole.

The assignment is about doing a speculative investigation into the past life of the device, while moving from one event to the next. The obvious point at which one begins is to identify the original human need. This is not as easy as it sounds. For instance, an apparent need might be for a device to create artificial light. But after a bit of discussion, the real and original human need turns out to be for a device to dispel darkness. This may immediately point to a deep, psychological fear of darkness that goes back to the time of the primordial human.

This is the opportune time to discuss the nature of human need using Abraham Maslow's need pyramid. The point that must be driven home is that a human need often may deceptively look merely physical. The needs of a human user of a device—as well as the functions of the device—could be physical or psychological, intellectual or emotional, literal or symbolic, and material or spiritual. But more often than not, they are a combination of several or all of these.

The identification of the original human need leads to the next step of the investigation: to search for exactly when and how the device was born. It is here that one meets the ancestor that, in turn, is named the first "landmark event," a term emphasized because it is the first time the concept of landmark events is introduced as the core concept. A landmark event is meant to represent a historical breakthrough that causes a distinct change in the total form of the device; not just a change of the visual aspect, but all those attributes that helped to create the complete device. These include the change in the outer geometry, color, and surface texture of the form, the change in those elements—both inside and outside—that give the device its structural integrity, the change in material and method of production, the change in the way the device performs, and last, but most important, the change in its relationship with the user.

Eventually, what is needed is a well-constructed historical scenario with landmark events as high points. To construct a scenario

of this kind, one begins with known facts. While current students, living in the afterglow of the information revolution, have an edge over past generations, this is only a part of the process. The right kind of scenario is created by a judicious mixing of the chronological records of history with a freewheeling process of projection and simulation.

In this process, students are encouraged to imagine the device's past, the way one thought it happened. To start, they are asked to ignore the usual historical sources and to travel imaginatively in time; projecting and simulating the developments that they think led to the first and subsequent landmark events. Naturally, proceeding after such remarks, a certain amount of reinterpretation of conventional historical literature and other sources is likely. What stops this process of projection and simulation from turning a history into a historical fiction? This is more likely if the travel remained a linear progression, the journey going from past to present. But it need not be linear. In fact, it follows a lateral path. What makes it so?

At an opportune moment in the course, the students are introduced to the concept of influencing historical factors, those that cause the periodic changes in the total form of the device while the original human need and the corresponding functions of the device remain the same. These powerful agents of change are responsible for more than one quarter of the result, and generally are grouped into two categories. In the first category are the technological factors that affect the physical aspects of the human environment. Taken together, they represent the passage of time. Typical among these factors are the new discoveries and innovations resulting in change of material or method of making, introduction of a new technology that would change or improve the performance of a device, and change to a new kind of motive power.

In the second category are the socio-cultural and environmental factors, mostly related to place, that is, culture, community, region, terrain, and climate. They also can have a symbolic aspect that may be either overlooked or given less importance if not properly emphasized. A list of typical factors in this category includes a change in socio-cultural conditions causing a favorable climate for scientific and technological breakthroughs (the Renaissance period in Europe is a good example), politico-economic changes resulting in new devices because of the influence from other cultures (for example, India during the Mughal and British rules), and changes in the structure of a community affecting the social status or economic standing of users. For example, in India due to radical changes in the old caste system, devices associated with so-called lowly castes were discarded or acquired new meaning: a sweeper's broom adopted by Gandhian activists as a symbol to "sweep away" inhuman practices. Similarly, an English farm worker's cloth cap became a proud symbol of the Luddites.

The last stage after recording all findings is to visually plot factors from both categories in a lateral relationship with the ancestral and subsequent landmark events in a progressive manner. Among several ways to prepare a graphic presentation of this kind, one appropriate method can be a scroll-like chart on which the historical scenario in its entirety would progress horizontally, facilitating the lateral movement of three (or more) bands of information—each interacting with the others. Those related to the physical environments characterized by technological innovations and discoveries can be plotted in the top band. And the bottom band could consist of developments related to socio-cultural environments.

The middle and the main band, which I would call the highway band of history, would consist of developments laterally influenced, sometimes even dictated by, the events in the upper and lower bands. As they progress, these developments would coalesce at each important point, a landmark event in the life of the chosen device. All three bands would benefit from illustrations. A horizontal format of this kind also provides the necessary facility of beginning at one end and carrying on from one landmark event to another until one arrives at the present. I call it simply a lateral history chart.

Besides employing the method of projection, simulation, and learning the history of design in terms of landmark events in the life of a device, I think the course also teaches students to cultivate a healthy disrespect for so-called historical authenticity and accuracy that is largely based on conventional methods of archaeology and an overly strict adherence to chronology. It is more than a coincidence that one is led to draw a parallel with the *itihasa* method from the ancient works of the Indian cosmology.

Recently, based on previous students' desire to go beyond the confines of past and present, some groups of students were encouraged to take the historical scenario further to predict the future of the device. For this, they imagined the way the device would look and work in the year AD 2100. The method would be the same projection and simulation. They could not only envision the total form, but also write the future scenario that would indicate the likely path the future might take depending on the present developments in the various fields of human endeavor and concerns: technological, cultural, politico-economical, and ecological. Obviously, this concluding requirement of predicting the future of the device also can be interpreted as an indirect invitation to draw on one's learning about the design process (the learned design process at work).

Finally, there is an interesting outcome of the whole endeavor. At an early stage, I realized that, although I had attempted to formulate a course in design history for a group of students with a particular cultural background, it could, with minor modifications, work equally well with other groups with similar learning requirements in many parts of the world.