Semantics in basic Design

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This paper was presented in 'Arthaya', a seminar organised by IDC in 1987

The concept of Basic Design or 'Foundation Programme'(1) came into prominence with Bauhaus, the famous design school in twenties. In some design schools it is dealt as courses in 'elements of Design' or 'form'.

Pedagogy of Basic Design focuses on

- Sensitivity to perceptual (especially visual) world.
- Articulation and Expression in visual domain, and
- Value orientation to result in self identity or Self discovery of the student.

Basic design becomes the preamble to learning design. A student is ushered in to the 'world of design' through 'Basic design' and the quality of Basic design has tremendous bearing on the 'design personality' a student develops later. A student encountering Basic design has many similarities with a child learning language while encountering world around. This comparison is significant because children seem to be innately gifted learners, acquiring long before they go to school, a vast quantity of knowledge by a process Seymour Papert calls as 'Piagetian learning' or 'learning without being taught.

Seymour Papert(2) has also put powerful arguments on how a subject like Mathematics or computers could be taught to Children by creating a Math culture or Math land in which, it would be as natural to learn Mathematics as language in any culture. Similarly we can hypothesise that it would be natural to learn design in a 'design culture'. Probably this is the reason for high standards of 'Italian Design', though there were no 'design schools' in Italy till late. Richness of Italian Art (Sculpture) and design heritage is well known.

There is more to learn from looking at how children learn language before they are schooled. For a child, learning language' is a meaningful life action'. Language learning is not separated from life action or learning about the world around. "meaningfulness' or 'ability to relate it to oneself seem to be the key factor in 'Piagetian learning'

Today, if we take a look at the 'basic design' Programmes all over the world, they are highly 'syntactic' oriented . the elements of design like 'line, form, texture, colour, proportion...etc. which form elements of the grammer of 'design language, are taught in an 'abstract' framework. The main contention of the given task is to 'play and explore'. There is no specificity on what is to be explored or achieved. Either, student has to depend on the experience of teacher to learn what is right and wrong or depend on his/her inner feelings or 'self expression.'

A 'meaningful framework is absent in the 'syntactic exploration' which a student is supposed to make. Main drawback in these 'syntactic explorations' is that the student is unable to connect 'these with the knowledge he has gained outside this domain. In fact, such connections are expected to be made by the student some how. We have experienced this difficulty in our programme, way back in the seventies 'syntactic based' basic design tasks remained abstract and hardly meaningful to the student. Basic design had very little influence on the later tasks in product design.

Considering 'Piagetian learning' it is obvious that the basic design tasks ought to become 'meaningful'. Such meaning in the tasks could be easily brought through a 'pragmatics' based approach. For example a student can directly work on a 'live design project as an apprentice to a senior designer. But this approach which was being followed before design schools came into existence, has its drawbacks and can not satisfy the needs of industry for trained designers. In fact it may defeat many of the contentions of Basic design which demands a free learning environment.

As a new solution, I propose a semantic based approach to Basic Design. 'Semantics' which will make the basic design an enfolding process, enabling the student to absorb and articulate the various life experiences will form the core of such a programme. It would become possible to bring the spiritual and ephemeral aspects of experiences of students into syntactic structure of design, through such an approach.

I shall elaborate this approach through the results of some of the basic design tasks, we, I and my colleague Mr. Abdul Gaffoor have been trying out with the students of M. Des programme(3) over the past 5 years.

1.0 One day tasks in Clay:

These class room tasks were done in a day.

1.1 Masks of Gods







For Indians, Gods and Myths are very real. They are live symbols in the present day culture; not foreign, esoteric, myths. A theme of masks was chosen for an introductory one day task in clay with the spirit of early man as stated by Giedion(4). "Pre-mythological " man was completely embedded in the world which surrounded him. He formed one with it, he did not stand above if, he did not feel himself to be the centre, but a humble element in it. His fate was ruled by powers he could not comprehend. To him the animal was a superior being, a creative greater than he, and at the same time a personification of invisible powers. All primitive symbols are rooted in this zoomorphic age. However simple or complex these symbols, they all represent invisible forces in a universe not yet reduced to a battle ground between man and man".

Each student chose an animal, bird or insect to make a mask of god in clay. Second day each coloured the masks. The task, though strange, provided a 'meaningful challenge' Students played with forms and colours to create Gods. Various expressions of gods like powerful, ferocious, peaceful, deathly were brought out by students after initial discussions. Typical Indian colours were used in uninhibited manner.

1.2 Akshara devatha or Letter form as God





In Asian culture, letters are worshipped as Gods. Letter forms as objects of worship were 'culturally meaningful' to the students. It was comparatively easy to comprehend the requirements of 'formal syntax' as the meaning was already known.

1.3 Metamorphosis of letters



Here the task was to achieve 'metamorphosis of a given letter in stages into an object or living thing starting form that letter. Thus letter 'A' becomes an Apple, 'B' a butterfly and so on. The 'meaning' of 'metamorphosis' was discussed with examples form Nature. Metamorphosis became a meaningful task compared to say a transition of cube to a sphere.

2.0 T-becomes Old-

The challenge posed here was to find a graphic interpretation of letter "T" becoming old. Various metaphoric comparisons were made to understand 'oldness' 'formal changes in nature when things and being become old were analysed. Parallels were drawn to understand "T" becoming old. Though it proved to be a difficult first task in 2-D, it provoked thinking to focus the attention on 'graphic language'

3.0 flower in a Square









Task in this case was to create a flower in a square with 'squares and circles' as graphic elements. The 'meaning' of flower was discussed with many frames of reference. Flowering of persons, thousand petalled lotus of enlightenment, many familiar meanings and associations provided materials for expression of flower revealing its physical and metaphysical nature.

4.0 Flower in a cube









Expressing flower in a cube of 'plaster' was a task sequel to the earlier. Hard, cold limitations of plaster cube provided an unenviable challenge to express a 'Flower'. The nature of 'cube with its possibilities limitations was revealed in the process.

5.0 Spirals in Cube









Spiral was taken as the theme to be used in a cube. The meaning of spiral was discussed in depth. Spirals in Nature(5), Mathematically defined spirals, spirals in Cosmos and spirals with symbolic significance (Kundalini or Serpent power in Yoga), Spirals as absorbed in

language like spiraling prices, were brought into focus. The challenge was now to translate such meanings into the 'design language' with syntactic notions like cubeness, continuity, full use of cube, economy of form, etc, the synthesis of meaning with the syntactic structures was effective.

6.0 Family of Forms







The task here was to create a 'family identity' in three dimensional 'turned' forms. The meaning of 'family resemblance', using the notions of the famous philosopher Wittgenstein, were discussed. In the beginning it became difficult to create a 'form' identity' which is recognizably unique. 'Naming of the families was suggested to students, which became powerful tool. Students used metaphors like pea-nut, Hamburger, Padmasana, Nandi to find 'meaning' in turned forms and create 'families of turned forms'.

7.0 Use of Generative Metaphor(6)







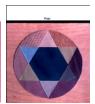


In this task the challenge was to generate a new form for a perfume bottle, using metaphors which can be associated with perfumes. Students thought of wide range of metaphors like Vortex to bring out the strength of perfume, 'dew drop' to suggest freshness, 'sprout' to tell the slow spreading of perfume, 'sail to float with the perfumes and so on.

8. Zodiac personality through surface texture







Zodiac personalities were taken as the base for 'meaningful' expressions using industrial textures. The characteristics of each zodiac personality served as a frame work to achieve a composition in textures.

9. expressions in a products – telephone

Expressions(7) like soft, rugged,.. were studied in detail. Meaning of each expression in Nature, literature, personality were looks into. This formed a 'meaningful' basis for form variations on a telephone.

10. Telephones as Messengers



Another group of students explored the form of telephone using 'metaphors' as base. In Indian mythology birds have often been messengers. A modern instrument like telephone was looked through a culturally meaningful metaphor to achieve new forms.

All these examples I hope would provide a basis for serious consideration of 'semantics as a base in the pedagogy of Basic design programmes'.

References -

- 1. Itten Johannes, The Foundation course at Bauhans in Kepes Georgy (Ed.) Education of Vision, Studio Vista, London, 1965. P. 104-121
- 2. Papert Seymour, Mind storms, Basic books, New York 1980, p. 3-18 and 38 54.
- 3. Industrial Design Centre at IIT, Bombay has been running a training programme in Industrial Design for Engineers and Architects since 1970.
- 4. Giedion S. Symbolic Expression in Pre-history and in First high civilization in keeps Georgy (ed). Sign Image, and symbol, studio vista, London, 1966.
- 5. Thompson D'Aray, on Growth and Form, Cambridge university press, Cambridge, 1961, p. 172 -201
- 6. Schon Donald, Generative Metaphor : A perspective on problem solving in sociology in Ortony Andrew (ed.) Metaphor and Thought, Cambridge University Press, Cambridge , 1979.
- 7. Rao A. G. Expression as a basis of new form in Industrial Design, In Abhikalpa (Jan. 1984), Journal of Industrial Design Centre, IIT Bombay.