## On Abstraction – 22-3.14

A student came for discussion yesterday. He has been working on the abstraction of a scorpion. His initial trials were in a thin shiny tin sheet. The shine was to show the danger or speed with which it can sting. But the 'form' was still trying to capture the physical look of the scorpion. It is impossible to compete with the beauty of 'Creation' in Nature! What we can do is to take some aspects, abstract these and capture them in the materials we can manipulate and which we think are appropriate for the theme!

The dialogue on his model went on....

'Can your scorpion capture the 'danger signal' it needs to convey in straight lines and sharp edges.

The current model seemed to be a victim of the material and the nature of joint it is 'forcing on'. The thin tin sheet which he had chosen was dominating. It was not allowing the scorpion to come out! The sheet was not stiff enough for the scorpion shell to take a new abstracted expression!. Though a scissor- cut was enough to insert the sheet for a joint, it did not give the control on the form. The geometry of the joint could not be defined easily. The 'sheet' inserted in the joint was moving into any position! Straight lines of the defined edge, were needed to convey the sharp, poisonous, injection like sting. There was a need to understand the nature of sheet metal as well. Bend in sheet metal gives its structural strength. Experience of a V or U shaped bent section need to manifest here! It is important not to fall for the temptation of imitating the physical form of scorpion!

I suggested, 'May be taking thicker sheet metal would help! Even the rusted surface of the thicker sheet metal (if they are not tinned or galvanized) can suggest the strength and the danger, though it is unlike scorpion's menacing shine. Here comes the freedom of expression in abstraction. But questions of 'Purpose', why one is abstracting has to be clear. It is quite contextual! When Mondrian abstracts squares from tree, it is a lifelong query and discovery of a lifetime! It startled the whole art world. It is a kind of quest for truth!

When we undertake a similar journey in a task to learn form in 3D product design the context is different! First it is to look at Nature with a fresh eye. Study how artists have expressed the same theme in different materials, different cultures, different times in history. All the beliefs and myths of cultures go with it! All this can be inspiration and backup study to get immersed in to the act of 'Creation'. But there is specific goal in design, which makes it different from 'art activity'. Demand on the left brain comes into picture! How to abstract for people whom you want to reach? These are ordinary people in a given 'Culture', for whom you are going to design and even sell! 'Abstraction in Design' ought not become a new language which your audience has to learn.

Unlike many of sculptors a designer has fair bit of knowledge of industrial materials and processes. How to unshackle this formatted knowledge to discover new forms is the challenge in this learning! The task looks daunting. One side works of lifetime devotees of 'Art and Discovery', dedicated for life. On the other side, a silly rule bound, frame work to achieve! Sometimes I too get doubt about this exercise on 'Abstraction' which I have introduced. But every time I find sudden 'quantum jumps' students make during the course. I am sure it would haunt many for life if they didn't get their anticipated result!

Well! after the discussions we had, the student came with a second iteration. This time there were only '3' bent elements. Shape was based on the scorpion modular body! They had become simple, but mechanical!, modular but less expressive! Some of the ferocity had gone!

' How to bring it back ?'

Since the joints between the parts seemed to be a problem, can we look at the scorpion again: the beauty of the scorpion and the transparent modular elements, delicately connected. May be we should look for a "Scorpion joint in sheet metal" this was a new thought'. We look at nature to abstract essential

form which we discover through elements of design like lines, colour, forms like square, triangle, circle and so on. But mere depicting the subject in elements 'logically' can result in an uninteresting output like a 'mechanically arrived computer programme'. A logical left brain activity has serious limitation to bring out the 'power of the scorpion'. Scorpion has encoded information in a culture! Fear of bite, danger of Poison reaching the brain to cause a fatal injury or mythical image of 'Scorpion God'; all these can lead to a new depiction. This has to be an Art activity, using the imagination of Right brain! And this can also become a creative design discovery when contemporary industrial materials are used. A scorpion joint has the potential for discovery of a new joint! That will be the pedagogic challenge in design education! Take 'Art activity' back into a logical design domain

I said, "You can distort an element if you want'. We stretched the front element! It started suggesting the scorpion more and more! Here comes the element of proportion! How a child draws 'daddy' with big shoulders and biceps! Visual language comes into a play! Part is enough to tell the whole! People can read very distorted hand written scripts easily. The two elements in proportion were enough to understand that it is scorpion. But the third element becoming out of proportion suddenly emphasizes the aggressive danger! This was a break-through for the student! Lot of things he has been going through elements of design, material and form, exposure to art and first-hand experience of an artist speaking in a strange unconnectable language, all that fell in to place!

This becomes real learning seldom forgotten!

\*\*\*