UNTANGLING THE GRIDLOCK

Dimple Bahl
Assistant professor- Design
National Institute of Fashion Technology,
New Delhi
Email: bahl.dimple@gmail.com

ABSTRACT
This research paper seeks to bridge the gap that design education suffers from, that of not having a comprehensive compendium to refer to with regard to our own textual and cultural graphic design heritage. The aim of this inquiry is to try, using specific examples, to create cohesion and coherence in our vast design heritage so as to bring out a graphic design vocabulary that celebrates our individuality while adhering to the tenets of global pedagogy.

Grids are of particular importance to the study of graphic design because amongst the various elements that govern the aesthetics of the graphic layout, the grid is possibly the most important. Its intricate use has for long been the hallmark of our textual and cultural heritage.
Once explored and understood, this research shall hopefully address the gaps in the curriculum of design education, where universal frameworks are mechanically applied to diverse creative environments.

Keywords: Graphic Design, Grids, Indian Culture, Design Education

INTRODUCTION
For a country steeped in 3000 years and more of tradition, it is perhaps difficult to bear the weight of its entire heritage. And sometimes, shedding this weight means letting go of what was, till a long time, a way of life. Design and the way it is taught in the current scenario might well be considered one of the sacrifices made to clear the path for the march of technology. (2)

The bedrocks of our literature, the Ramayana and the Mahabharata, have been described as mythologies in the English language, though the word used in our native Sanskrit is itihaas, or history, in as much as being a point of reference, theologically and socially, for the present to weave their lives around. The concern is not the pin-pointing of specific events. Rather it has more to do with them being frames of reference for generations, as a guiding light to their social interaction, the quality of their relationships, and the direction of thought. (8) The distinction between art and craft was nonexistent at best and blurred at worst. The holistic approach to art and craft was described with the nuances of Kala, the umbrella under which art, sculpture and literature, among others, flourished. Thus, art and craft were companions that went hand in hand through our history, being taught together, being practiced together. Artisans and craftsmen weren’t just celebrated personalities – though there were those in abundance at the courts of the kings and courtiers. The housewives decorating their houses with madhubani paintings in Bihar, or grandmothers embroidering
kanthas to recycle new from the old were as much a part of our cultural heritage. One did not necessarily have to know the nuances of the fine arts; one practiced them as a way of life.

The advent of occidental thought, with its own very recent history of the renaissance, the industrial revolution and corresponding advances in technology (that was influencing all spheres of industry and the arts as well) began to affect the holistic approach to creativity that was the norm in India. The separation of charukala and karukala (a clearer definition of fine arts & applied arts than the one our culture has ever envisioned) was a dichotomy that was perhaps a precursor to the sharper divides in the holistic thinking that were to come. (34) Also on the wane was the individual attention that the guru shishyaparampara, the teacher and the disciple tradition, bestowed on those interested and motivated to learn the craft. The predominantly western concept of mass education has been adopted as a norm. (3) This has also perhaps sacrificed the attention to detail that had set the Indian idiom of art apart from the rest. The ethos of the Indian design thought that to a large extent derives from the philosophical thought embodied in the rituals and traditions of our culture is the interconnectedness of things. The flow of thought, action and design is a seamless process, with one complementing the other to make a cogent, coherent whole. (30) This seamlessness seems to have been ruptured with the more rigid definitions that modern thought has necessitated on design education.

More importantly, these definitions are not native to Indian thought, and are acquired knowledge. This would perhaps mean that its assimilation into natural thought processes and design thinking would perhaps be that much more difficult. Moreover, the dependence on referencing as a means of definition in this western pattern of education is itself currently being questioned by its practitioners. (12)

With the global village scenario prompting a more inward looking approach to education, to more effectively harness the nuances of one’s own culture and make it into a unique design language (29), it is perhaps the right time to look back, catalogue and attempt to incorporate the uniqueness of our design history into modern design education, thus tapping into a source of the Indian aesthetic language, replete with the depth of philosophical thought and the strong accent on the interconnectedness of all things, the holistic approach to creation of a unique design identity. Graphic design and its currency in the contemporary scenario is perhaps a fitting yardstick to measure the way in which this thought can be translated into action.

The fact remains that the knowledge students of graphic design now have of the rich design heritage that exists in the country is subservient to the universal nature of the curriculum. This has in all probability been due to the lack of detailed and focused research and study on the subject of this heritage and its relevance in the current graphic design context. (29) The course material – be it research publications, course curriculum or other education tools – is mostly culled from work by international authorities on the subject.

There is therefore a need to go deeper into the vast reservoir of our heritage to find grids that can be transported to the present context, which will hopefully be the first step in incorporating the inherent nature of our grid system to the earlier mentioned curriculum. One can probably assume that the inherence of our own tradition will make it easier for a student to relate it better to the modern curriculum. This will, in turn, lead to a more indigenous design statement that will be both contemporary and individualistic in its communication.
GRID - THE BUILDING BLOCK OF GRAPHIC DESIGN

“The grid system is an aid, not a guarantee. It permits a number of possible uses and each designer can look for a solution appropriate to his personal style. But one must learn how to use the grid; it is an art that requires practice.” - Josef Müller-Brockmann

The grid is the basic ingredient of most visual designs. From drafting a letter to creating an edifice, a grid provides cohesion, coherence, and structure to design. Indian culture has, since ancient times, understood this all-encompassing feature of the grid, has recognized it and exploited it. Be it our rituals, with the yagna providing the foundation for the merging of the individual with the larger entity of nature, or the prayers themselves, with the navgraha grid depicting the nine planets and their corresponding influence on our lives, Indian culture is rich in examples of creative and flexible use of the grid. (30) The Mandala and the chakravyuh mentioned in the Mahabharata are but a couple of examples of the range in which the grid was employed. Indian history has many more such examples. With the advent of technology, and the global village encouraging the free exchange of ideas, evolution in the grid was but natural. With the examples of Gutenberg and his printing press onwards, the grid was now a structured, labeled entity, one that would provide the framework for design, albeit with a name for every nuance.

The march of technology further refined this nomenclature, giving variety and practicality to the framework. Somewhere along the way, the flexibility and creativity of the ancient grids and their implementation seemed to have fallen by the wayside. More importantly, its role as a tool for enhancement of design took centre stage, leaving the depth of its meaning behind. A grid now seemed more of a rigid structure, and less of a free flowing design tool rooted in our culture.

Thus, a possible amalgamation of the user friendliness of technology and the creative thinking of ancient Indian culture would perhaps lead to a whole new perspective of thinking about, using, and understanding the grid, along the way enunciating a uniquely Indian design language.

Definition and elements of the grid - the western context

Grids in visual design are often described as a system of geometric patterns, which guide the designers create a visual with a better layout. They can be defined as a compositional design matrix for controlling the placement of typography and imagery. (35) Western design, though, largely ignores the symbolic aspect of the grid, nor does it lay as much stress on symbolism as more Indian interpretations do.

The individual elements of a grid are:
The point
The axial line
Mode of intersection
A structural typology of the grid reveals four basic grid sub-forms:
1. Coordinate based
2. Intersection based
3. Module based
4. Line based

Historically, these sub-forms are found to function in pairs & consist of two major forms:
INDIAN DESIGN PHILOSOPHY – AN OVERVIEW

Indian design through the ages, with all its attendant nuances and symbolic representations, has displayed an abiding sense of UNIVERSAL APPROPRIATENESS, which comes closest to describing the very Indian concept of AUCHITYA. Each object, image, system or microenvironment seems to have been created to perform a specific human function, whether physical or psychological, literal or symbolic. (19) And this seems to be the most potent reason for their conspicuous absence from the European concepts such as Art for Arts sake or decoration versus usefulness. The three major concepts of Indian design are:

**Universal appropriateness or auchitya**

The concept of synthesis, In Indian tradition there was an overwhelming consciousness of the interconnectedness of all things and the universe was always seen as an organic whole with systems of mutual interdependence and interrelationships, each given a cosmic significance. (33)

**The unified concept of kala**

In India’s past the two concepts of art & craft had been more closely linked than they are generally thought to have been. Its only with Europian influence that Kala was segregated into CHARUKALA-fine arts & KARUKALA- applied arts.

**The interconnectedness of all things**
Indian design thought lays stress on the seamlessness of thought, where everything merges without break into the next logical concept, and there is a thread that binds and interconnects all concepts into a cohesive whole.

The purpose is not to dwell on the entity of the religious & spiritual background but to examine those aspects of speculative thoughts, which determine the artistic vision & expression. (30)

**Grids in Indian design history – A brief classification**

Grids have had a primordial role to play in our lives since millennia. Be it the *janampatri* that captures the planets and their movements in a grid to rule the happenings in our lives, to the *Swastika* that signals the auspicious in the activities we undertake, the symmetry of the grid has been given pride of place, even reverence. Another example of the importance of the grid in our lives and its use in the betterment of the quality of life is the 5:4 ratio. (26) First seen in the ancient cities and then manifesting themselves a thousand years later in important religious rituals, the ratio is perhaps a strong underlining of the importance of the grid in our history. Further elaboration can perhaps be better explained with the help of visual representations as follows:

*Religion and rituals*

Indian religion & its rituals is a repository of grids. A good example is the use of the Swastika (Figure 5-8) as an auspicious symbol that is also the basis of good domestic architecture. (23) Another example is the janampatri, the Hindu birth chart that traces the positioning of the planets and their corresponding influence on the life of the particular person.

![Image of Janampatri](http://www.dinodia.com/photos/NVM-220293.jpg)

**Figure 5: Grid in Janampatri**

Figure 6: Swastika Seals of the Indus Valley Civilization
Image sourced from: http://commons.wikimedia.org/wiki/Swastika

Figure 7: Swastika symbol on a temple wall

Figure 8: Swastika used as an auspicious symbol
Image sourced from: http://www.ourlifejourney.com/images/India.jpg
The 5:4 ratio

Our own imperial proportion also comes into play with the manifestation of the 5:4 ratio in most important
dailylife as well as spiritual activities. This ratio dictates the length to be a quarter longer than the breadth.
First witnessed in the town planning in the Harappan cities in the third millennium BC, and finding concrete
expression in the excavations in the Gujarat city of Dholavira, the golden proportion re-emerges almost a
thousand years late in the ShatapathaBrahmana and Shulbha Sutra, where the ratio of 5:4 is used in the
precise instructions to create fire-altars for vedic ceremonies. (26)
Symbolism

Figure 11: The Mandala in the Sri Yantra

To understand the importance of the grid in Indian symbology, one needs only to look at the Mandala. (Figure 11) Used both as a tool for meditation and as a reference grid for Hindu temple architecture, (1) it is a fine example of flexibility of use within a set framework where the VastuPurush’s supine form dictates the layout of the temple.

Figure 12: Vastu-purusha mandala
Image sourced from: http://www.divinebrahmanda.com/2010/05/vastu-purusha-mandala.html

Architecture

Figure 13: Plan of Konarka Temple
Image sourced from: http://www.4to40.com/travel/Konark&kMayadevi_Temple
The temples at Konark in Orissa (Figure 13) and Madurai in the south of India are fine examples of working with a grid to create the superstructure, and then embellishing them with design elements, all the while keeping the sanctity of the grid intact. (21,22,23,24)

**Indian scriptures**
To understand the nuances of the grid, perusal of the Indian scriptures becomes imperative. This will provide understanding of the meaning and the scope of use of grids in ancient times, as also their relevance.

![Figure 14: Diagrams of the Universe](http://www.rmanyc.org/exhibitions/view/309)

The intricate use of grids in Jain scriptures has for long been the hallmark of their textual heritage. In them one can find detailed examples of vertical divisions, radial grids, as also human forms to make grids to create hierarchies of information. (Figure 14) This is most clearly seen in the construction of the mandala, one of the best-known depictions in Jain Symbology. It is also clearly visible in scriptures with their provenance in Gujarat and Rajasthan, thus making them ideal objects for deeper experiments with grids and their importance in the current context.

**DISCUSSION**
The grids used in the current design scenario are useful, practical and popular, but they seem to lack a unique language that will make them stand apart, and create truly indigenous design. The possible solution of this problem is in our ancient Indian scriptures, where from the janampatri at birth to the movement of stars supposedly governing our lives, everything was documented in the framework of a grid, without compromising on the flexibility of design.

With the wealth of knowledge contained in our scriptures, and the change in technology, the mix of the old and the new with its mélange of flexibility and ease of use, the grid can become a free flowing design tool. It can enhance the meaning of the information contained in it and the scope of this enhancement is probably only restricted by the imagination, the understanding of ancient tenets of design, and of the mind using it. However, the vastness of the material at hand can work as a deterrent to cohesive conclusions. And there is, perhaps, a need to home in on a specific set of raw material to come up with a focused yet comprehensive solution to the conundrum

**CONCLUSION**
Indian visual culture has a history of many thousand years, and though the accent on a holistic, interconnected view to design makes the language a seemingly united one, the nuances and their study thereof become an intricate affair.
Indian history is replete with examples of the pride of place the grid takes in the scheme of not only spiritual but also the daily scheme of things. It is also abundantly clear that the wealth of knowledge contained in these texts is being squandered by disuse. What is probably needed most is cohesive, coherent and in depth research into how the ancient grid can be amalgamated into the modern structure of design. This assimilation should ideally benefit from the innovations of technology without sacrificing the strong foundation that our own history has laid for our design language. Only then will there probably be a vocabulary that will appeal globally, and be garnished by the flavours of individuality.

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