

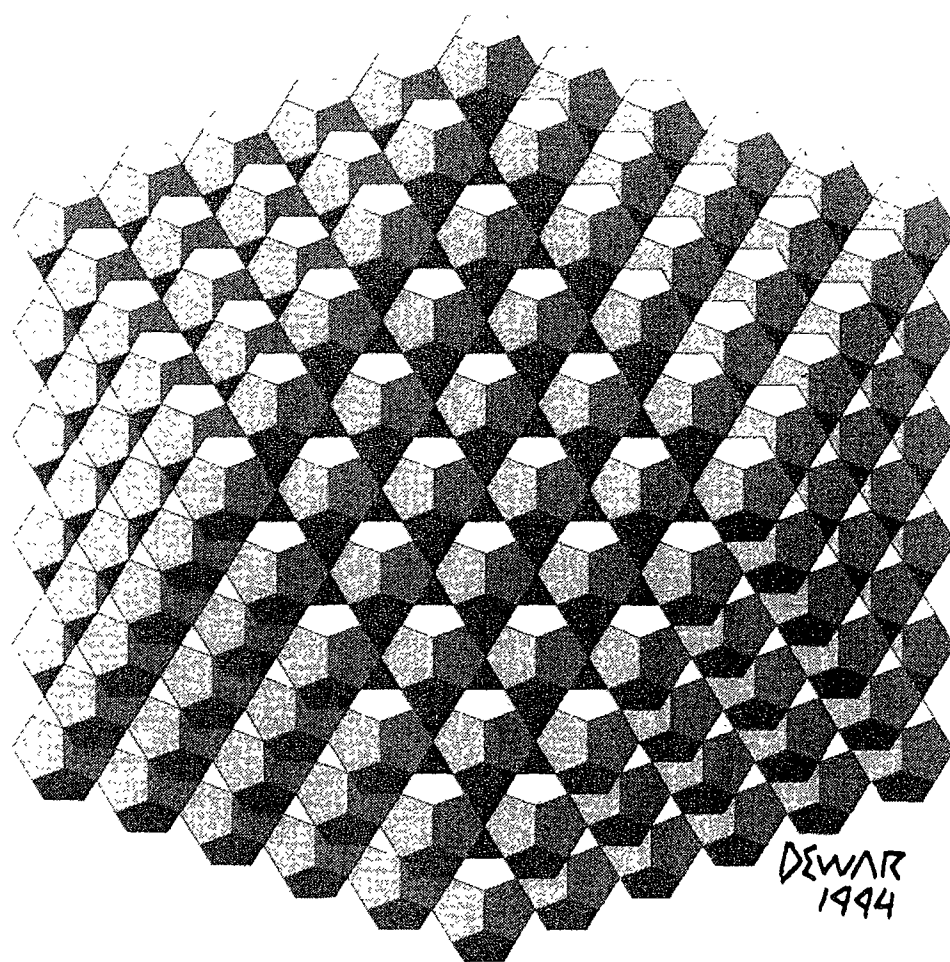
Symmetry: Culture and Science

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NATURAL & VIRTUAL MYTH

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The search for Symmetry, Allure and Myth, particularly in the Mythology produced by Visual Media is one of the goal of this project. As well as the exploration of which key role Symmetry has, in a visual Myth: for example in movie stars, television stars, such as top-models, rock-stars and so forth. For instance, Marilyn Monroe has been selected as prototype-myth of this research,

The analysis of Symmetry and Allure of the Movie Star, visualization techniques, juxtaposition and modeling system assisted-computer is the ultimate goal of the project. High-Performance-Computers allow the researcher to visualize numerical simulations, interacting with complex phenomenon as Visual Allure and Myth. However, in order to demonstrate the mechanism of Visual Mythology, this project follows a more or less opposite approach by taking formal and functional analogies from the Sciences (uncertainty principle symmetry and analogies). Analogies taken from the Umanities are common epistemological means in explaining symmetry in science and art.

One of the unifying principles of the integrated system of the knowledge of Man and his world seems to be the concept of Symmetry. The notion of Symmetry is generally defined as the invariance of a configurations of elements under a group of automorphic transformations.

How are symmetry, Allure, Beauty and Myth correlated?

Is Beauty only skin deep? Or is there a set of signs of an underlying quality such as Symmetry in Behavior? Biologists and Ethologists gathered evidence from the study of animals and human beings which show that creatures appraise the overall worthiness of a potential mate by looking for at least one classic benchmark of beauty is symmetry (Thornhill)*.

At same time it is demonstrated by other investigations that Symmetry plays a key role in such movie star as Marilyn Monroe: for example, in her shimmying, in her sensual well-balanced walking or in smiling (in a symmetric related-action with combined movement of lips, eyebrows and half-closing eyes).

At first the visual myths will be investigated in two ways and with two techniques: by Graphic Method that transforms image film in cartoon and by High-Performance Computers that lead us to see the underlayed quality of actress skill.

Visualization converts data into variety of pictures.

Presentation by Graphic Method makes it easy for the researcher to grasp many of the essential regularities and irregularities present in the data. It is also convenient to recognize statistically the "constants" of expressions and emotions.

The use of the face provides an approach for a first look at multivariate data which is effective in revealing rather complex relations not always visible

from simple correlations based on two dimensional linear theories. Thus it is relatively easy to identify the style of Movie Star Communication.

On other hand High-Performance-Computer operate in higher dimensions because the study of non-linear complex phenomena requires many variables. Time works as a fourth dimension, as "flexibility" that allows to focus many important details in space-time.

New advances in both hardware and software gave many exciting possibilities to visualize in higher dimensions as well. It will be easier for the researcher to simulate, to interact in Virtual Reality and almost to analyze the "communication economy" in acting (ie: in how much time a movie star can communicate her emotions...and wich position results as being a mannerism or creative: when a movie star assumes a smiling expressions).

If Graphical Method is used for converting data in animated cartoons by Image Processing Technique, High-Performance Computers stem from diverse experiences, among others: Computer Graphics, Computer Vision, Computational Design, Knowledge Representation, Cognitive Science, Conceptual Graph, Connection Science and so on. Computational Design is a way of seeing some phenomena that we cannot really see. it helps designers or researchers in creating highly-detailed animation.

After all why not study Mythology also with aid of High-Performance Computer? Why not visualize the "symmetric relations in walking and rhythm" of talking, of **voicing** that allow us to identify nets of "musical and sensual allure"? According to evolution history the roots of Myth are in rituals, for instance, in beating the ground with the feet for dance, in heart-beat rhythms in breathing, in gestures for communication. We must go back to the origins of Myth, when the rhythm of the foot striking the ground generated Dance. High-performance is a new tool. In fact, for an integrable dynamical system with one degree of freedom, to paint the integral phase over the phase space, proves to be very effective for encovering the global flow down to minute details. In the same way it is useful to analyze the star's behavior. Maybe even Mythology could reveals some other secrets? A set of point that implies geometry of relations ;motion, expressions, talking ?

By common sense - as naive view of the world - Myth is also defined as "an attraction".

But after Connection Science (AI) we may consider Myth as an "attractor"?

Also in searching for Symmetry and Beauty, Genetic Algorhythm will consider Mythological Evolution in the line of evolution of Culture and Life, in the specific topic of the Star-System : from a mythic figure to another. For example from Jean Harlow to Marilyn Monroe. In the evolution line of modes of Behavior, acting, Age line, shymming: this has the advantage of showing the evolution of the model. Harlow was a Platinum-cold-girl; Betty Grable Fat-Doll, Marilyn Monroe Shymmy-Doll. Also following phylogenetic sense: Age Line, Profile, Hair, Nose, Lips, and Behavior of Movie Stars will be studied. Because in the framework of a model's parameters relating to evolution of social culture the line of transformations is considered.

Thus for some epistemological problems a research in Artificial Intelligence is required, mainly for story comprehension, interpreting visual scenes and solving problems for modeling. Particularly in modeling system of movie stars. Interacting with film-sequence using Virtual reality is a another way to study morphological asymmetry in mythic stars. Why there are random deviations from bilateral symmetry. " Several early successes - behavioral ecologist Paul Watson and Randy Thornhill believe - indicate that incorporating measures of symmetry into sexual-selection studies may help link individual sexual success to a basic component of viability- developmental stability". Possible causes of Asymmetry influences that mar symmetry usually act early in development. Some Scientists conjecture that the ability to develop normally despite such stresses could have a genetic basis. Other causes could be : poor Nutrition, Pollution, Radioactivity, Disease microbes among others . It is a deviation from model? Using Virtual Reality it is possible to "restore" a symmetric-model?

Myth as daydreaming in everyday routines is considered in this project . Daydreaming as fiction in wich viewers can find fears and passions. Actually daydreaming is best understood as one of the manifestation of the "stream of consciousness" .

A phenomenon very well described by William James, fantasized by James Joyce, and "glyphided" by Samuel Bellow and few others in narrative techniques. Daydreaming works actively between The Conscious and The Unconscious in the area of the Pre-Conscious. It is an interesting means with wich to study Mythology. As a stream of thought it seems to be like a human shortcoming, a useless distraction from everydaylife. Would it be a good starting point for scientific observation. **Absentmindedness**? Maybe it works like a daydream?

Freud compared myths to age-old dreams - to say -to daydreaming. The mechanisms he found in oneiric life are the same that work in mythical imagination.

In night-time-dream, every experience appears as **simultaneity**, juxtaposition of images and events.

Daydreaming and dreams have the appearances of simultaneity in common. So, why not apply, to visual mythology the analysis used for Interpretation of Dreams?

For example using the Theory of The Infinite Sets as the Psychiatrist Ignacio Matte-Blanco did?

Would it be a useful approach to understand the multidimensional aspect of the Visual Myth?

Considering it in the same way as The Unconscious. as a multi-dimensional infinite? As an abstract structure without a shadow of contradiction, a set of relations, simultaneously symmetrical=asymmetrical. In short , The Unconscious treats relations as if they were identical to each other, or rather, symmetrical to themselves. This original analysis of The Unconscious, that measures oneiric relations, could help understand the mythological phenomenon that animates the Cinema, the T.V. and Virtual Reality.

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