

# **Multisculpture or Polymorphic Sculpture : A Different Approach to Sculpture to Challenge and Nurture Reflection : Both in the Sculptor and in the Viewer**

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## **Abstract**

This short paper introduces the concept of multisculpture, here a sculpture that is designed to be presented on different sides, so offering the viewer a whole range of alternative perceptions of the work. The birth of this concept and its implications, namely through mathematical/physical features, are considered. Examples are shown in various positions, and one is proposed in the Mathematical Art Exhibit associated with the conference [1].

## **A Little Background Information about My Journey**

My father was a painter. Maybe it is because of this, in reaction to it, that at the age of 16 I became drawn towards sculpting wood. What I inherited however was a perpetual care for aesthetics and nature. As a result I became a landscape architect and a town planner. It is only as I was approaching my fifties that I discovered stone and I was completely captivated. After having spent time in the company of stonecutters, I made a brief foray in the Académie where the teacher told me to draw the axes of my project in clay, so as to be able to carry it out in stone later. From that moment, the notion of axis became of paramount interest to me. It is only around 10 years later that I became free of its constraints and so, intuitively I discovered multisculpture, a concept I keep exploring and developing with continued enthusiasm [2].

## **'Polymorphic Sculpture', or 'Multisculpture' : a Concept**

Polymorphic sculpture: an expression that evokes this characteristic of a work of art to show different perspectives or even aspects of itself without the nature of the work changing. We have chosen to use the word 'multisculpture', less appropriate maybe than 'polymorphic sculpture' and its inherent concept, because it sounds easier for the layman to understand.

While the words and phrases 'multisculpture', 'multi-sculpture', 'polymorphic sculpture' have been used with a few different meanings, as a ride through a research engine will readily demonstrate (\*),

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\* but so doing, one unfortunately misses important information provided with keyword 'hypersculpture'

our concept of multisculpture, independently developed for some years, forces the artist, as a prerequisite, to show the various perspectives of a particular sculpted mass by changing the base on which the work of art rests, leaving then to the spectator the possibility of considering the work of art as one piece, viewed from different angles as is usual in traditional sculpture in-the-round when making a 360-turn round the object. But, should he wish to, the spectator can imagine that changing the base in fact changes the nature of the object.

Also completely essential, then, is that each base position should show a fresh and meaningful appreciation of the same object, not simply a change of styling or decoration in each position, but, each time something that emanates from a reconfiguration of the object from its 3-dimensional view. In this respect, it differs completely from 'classical' sculptures where usually only one side (the base) is suitable for the piece to rest on, but it also differs from polyhedra presenting a number of faces, identical by shape, material, and decoration, and for which each base would be equivalent. This added freedom, although it endows the sculpted object with a greater range of interpretation, mustn't blind the sculptor to the overriding need to ensure the overall cohesiveness of the piece, if he or she wishes so.

### **A Broad Range of Possibilities**

One of the most important concerns, if not the cornerstone of the artist's work when he or she is engaged in producing a balanced and harmonious composition with multiple perspectives is to consider the different ways of placing an object and the various base resting characteristics that can occur in the same work of art. It is indeed to carefully and consciously select and distribute them from the following range of cases, well known according to the notions of convex and concave form, balance of volumes, equilibrium and stability, relating these to material properties such as mass distribution.

He can thus choose among one, two, or three points (theoretically) or zones of contact (in reality), or generalizations thereof, as lines or planes of contact; stable, unstable, metastable or indifferent equilibrium; rolling, oscillating or fixed positions; use of materials with different densities, inside cavities with moving solids or liquids, etc. In fact an infinity of ways to provide interesting effects. The form and nature of the supporting surface can enrich even more the possibilities, in which case not only the sculpture itself but the couple sculpture-support must be jointly considered, as we in fact already did without saying, when alluding to 'zones of contact' rather than 'points' above.

### **The Point as Source and Accomplishment of the Creation Act**

For an artist to engage in multisculpture on the basis of its axis appears to me to jump a vital stage: the axis in itself already represents a constraint as it indicates a direction or a separation, a limit.

The temptation occurs to refer to the "Big Bang", a metaphor for the original instant of creation.

Indeed, such a project proceeds in a natural way as the conception and development of an "explosion", a spreading out of volumes from an initial internal point which is nothing less than the center of gravity of the work of art to be.

This point, the rough approximation of which is grasped by the artist as he starts his work (the alpha point), changes place continuously throughout the creative work. My opinion, therefore, is that only the point itself is the creator. Indeed, a succession of points creates a line. A sweeping of a line makes a surface appear. An assemblage of surfaces creates volumes that will in their turn take their place in space-time as they have originated from the point, which, multiplied, foreshadows its outcome.

The artist needs to direct the trajectory of this point, he must tame it in an attempt to ensure that he will reach the goal he has set himself (point omega), whilst making sure at all times he will remain capable to keep control of his creative urge. Not only to maintain the aesthetic quality, but also, and maybe more

importantly, to ensure the cohesiveness of all the choices made to define the sculpture, staying away from any of the pitfalls that would see the point become like a free electron, impossible to master.

### Examples of Multisculptures

It is now left to me to show a few works that aim at fulfilling the definitions above (Fig. 1 and 2).



Figure 1 : Four views of the five positions of 'Coquillage'

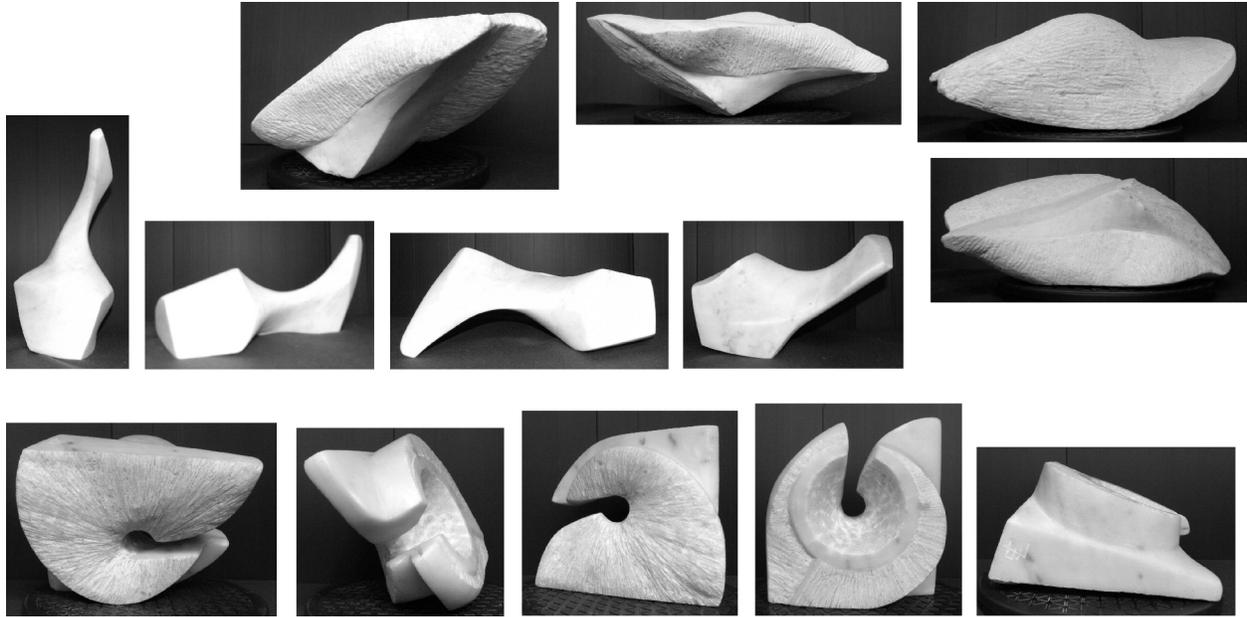


Figure 2 : 'La moufle', 'Le Curieux' and 'Les Autres et Moi' shown on several bases

### Acknowledgments, Copyrights and References

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My concept has been deposited at the Benelux Office for Intellectual Property, La Haye, The Netherlands

[1] Jacques Beck : <http://www.bridgesmathart.org/art-exhibits/bridges2010/beck.html>

[2] <http://www.votre-galerie-virtuelle.com/sculpteurs/sculpteur-beck.htm>;

Permanent exhibition at home; Numerous exhibitions without multisculpture; Sculptures present in Europe, USA, Australia, Asia.

Exhibitions with explanations on polymorphic sculpture : Den Blank, Overijssel, B, 2004; Jacques Buisseret Prize 2004; Participation at Spes Found Competition, 2006; Landscape Architect Hayez, Belgium, May 2008;

Intimerrance, Montigny-le-Tilleul, Belgium, February 2009; Kavalierhaus, Gifhorn, Germany, April 2009;

Baraqu'Art, Waterloo, Belgium, May-June 2009; Linéart International, Ghent, Belgium, December 2009;

Films: Roma, galleria Claudio Morleni, presentation book "Jacques Beck" and multisculpture; Queen

Association., film about Jacques Beck's creation, the multisculpture, 2008,

part 1 <http://www.youtube.com/watch?v=q1XkHBsVtEs>,

part 2 <http://www.youtube.com/watch?v=g5uy6YaXDBQ> ;

Opening Foundation Point et Lumière with explanations about multisculpture, 2009; TV Com, Film about Point et Lumière Foundation and multisculpture, December 2009.

Book: "Jacques Beck", by Françoise Beck, edited by Foundation Point et Lumière (3 languages), 2009;

Annuario d'Arte moderna 2008, edited by Acca, Annuario d'Arte moderna 2009, edited by Acca.

[3] Nathaniel A. Friedman, *Hyperseeing, Hypersculptures, Knots, and Minimal Surfaces*,

<http://www.mi.sanu.ac.rs/vismath/nat/>