



Sculpture in Plastic Surgery

The main goal of plastic surgery is the restoration of form and function for parts of the body affected by trauma, neoplastic disorders, malformations and previous avulsive surgical treatments. This discipline seeks to regularize the body's shapes. Every plastic surgery intervention is preceded by an accurate anthropometric study, namely the examination of body's proportions. Henceforth, it is always an aesthetic intervention: in plastic surgery there is a direct link between reconstruction and aesthetics ¹.

The art of plastic surgery is comparable to the figurative sculpture, the difference being that the material on which the surgeon-artist performs its work is the most difficult medium.

As much as the surgeon needs to have sculptor-like qualities, as opposed to the conventional artist who creates from inert material, the surgeon's medium already has a form and function which is autonomous, living and therefore ever-changing. This telenomic nature of the surgeon-artist's medium means he needs to intervene minimizing damage, while respecting the natural constituents of the original subject ¹⁻³.

Studies carried out in the past by architects, sculptors and scientists, including Leonardo da Vinci, demonstrated that a person or an object is perceived as beautiful when the relationship between their forms is governed by harmony. This is a true mathematical relationship defined by Phaedrus as the "Golden Rule". Beauty, therefore, arises from the harmony of the parts composing a face, a body, a painting or a sculpture. The same concept exists in current research as well ².

By applying this concept of beauty to plastic surgery it means that every surgical intervention of aesthetic nature, must achieve a harmonious result imitating natural beauty rather than representing a subjective ideal without regard for the original.

Sculpture, as an art is the technique of creating images by acting on different materials: stone and marble, wood, ivory and bone ^{1,3}.

The birth of sculpture in Greece is traditionally associated with the myth of Daedalus, author of the first human image. He created Xoana, that is, wooden statues reproducing the human body with open eyes and

legs wide apart. He was the first to succeed in using sculpture to express vitality and spatiality ³.

The Greek word "*kánon*", means "team", "row" and figuratively speaking "rule" or "standard". This concept, in the ancient Greek world, applied to the measurement basis for a work in architecture or sculpture. It could be found, for example, in a statue measuring a foot or an arm span. It was established according to the standard choice of combined proportions allowing the artist to reach the representation of an ideal human type. In the Greek world, the native standard sculpture is naturally empirical i.e. provided by the nature itself, such as the foot, head, the brim (= arm span and its fractions), the finger, forearm ¹⁻³.

In the late Hellenistic period they speak of minimal standard unities. This was the era in which the concept of symmetry had ceased to be a relationship among mere numbers, and transformed into the one more free and open to eurythmics, which does not discount numbers, but also makes use of the coefficients of perspective. In the context of educational anthropology, the image of the human body, especially the female, has inspired sculpture since prehistoric times. The male image has also occupied an important place in different art forms, in which ideal images of the external surfaces of the body differing in style, perceived rather than derived from real anatomical consistency of Leonardo's, specific dimensional theories ³.

The theme we deal with seems to still find a more suited accommodation in the pages dedicated to a serious evaluation of the limits of anatomical art, compared with the reality of surgical morphodynamics or the different aspects of cosmetic and aesthetic surgery.

The body, as the object of surgical embellishment or "morphodynamics", must be subject to the comparison between the "non-beautiful", and its opposite "beautiful" in order to assess its standards ¹.

When a surgeon prepares to perform on his patient what Hayas called "metamorphoplastics", he must be careful in using, as Epicurus used to say, "gentle movements which through the view are created in the viewer pleasant forms".

If we compare the images of a linear and harmonious body and the ones of a body with altered proportions,

one can understand why the spread of “embellishment surgery” is more frequent as one ages ².

Although the epistemology of surgical art has gradually become more advanced and specialized, it must still be remembered that embellishment surgery remains limited in some ways by its repercussions (cuts and scars). In conclusion, the form of living dimensional models is sometimes difficult or impossible to achieve through embellishment surgery. Nothing can stop a plastic surgeon to try and obtain these kind of results but in general, the plastic surgeon should be asked to reject these comparisons and those ones that relate to the sculpture which are rigid and static. The plastic surgeon should ultimately be guided by the natural fluid and mobile harmony of a given individual ³.

Plastic surgery should not be used a tool of eternal youth; in fact, in terms of physical beauty we should aim for results which maintain “harmonious, pleasing and “attractive appearance ^{1,3}.

References

- 1) Fruscella P: *Chirurgia e Mito della Bellezza*. Realtà Nuova, anno LIX, 1994.
- 2) Rovetta A, Cesare Cesariano, Vitruvio: *De architectura*. Forlì: Biblioteca Erudita, 2002.
- 3) *Scultura in pietra*. Santamera Cami. Il Castello, 2009.

E. Trignano, P. Fino

University “La Sapienza”, Rome, Italy
Reconstructive and Esthetic Plastic Surgery Division
Policlinico “Umberto I”, Viale del Policlinico 00161, Rome, Italy.