

The Proportions of the Human Figure (The Vitruvian Man) by Leonardo Da Vinci, the Anthropometry and the Teeth

Irineu Gregnanin Pedron*

Independent Researcher, Bottoxindent Institute and Professor, Department of Periodontology, Implantology and Therapeutics, School of Dentistry, Universidade Brasil, São Paulo, Brazil

***Corresponding Author:** Irineu Gregnanin Pedron, Independent Researcher, Bottoxindent Institute and Professor, Department of Periodontology, Implantology and Therapeutics, School of Dentistry, Universidade Brasil, São Paulo, Brazil.

Email-id: igpedron@alumni.usp.br

Received: February 07, 2020; **Published:** February 08, 2020

Leonardo Da Vinci (1452 - 1519), titan of the High Renaissance, was a genius of the time - anatomist, engineer, scientist, philosopher and inventor [1,2] - by the insightful ability of his empirical observations (understood as valuing experience) at the time. His works are timeless, as they are still studied today, under the attempt to decipher them.

I am an admirer of the Vitruvian Man (1490), a resident work at the Gallerie dell'Accademia in Venice (Figure 1). The Vitruvian Man is one of the most emblematic artistic works, referenced and reproduced.

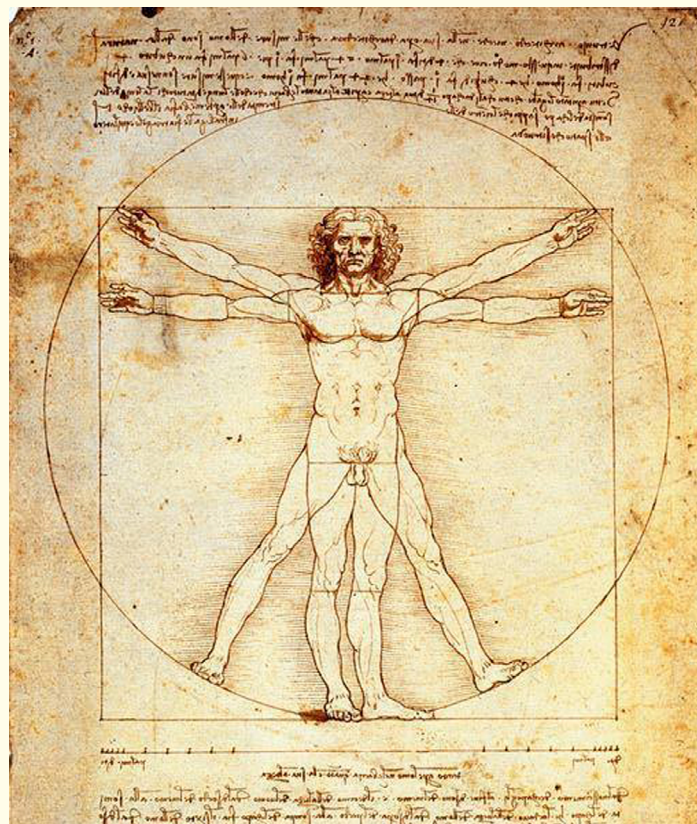


Figure 1: "The proportions of the human figure" (the Vitruvian Man).

In the drawing, the (subjective) evaluations of the human figure are known: the circle, being defined by its spiritual existence; the square, portrayed as material existence; and its proportions [1,3]. The latter, written by Leonardo (in the text accompanying the drawing), in the mirror image, from right to left: "four fingers form a palm and four palms, make a foot, six palms make a cubit". "The length of a man's open arms is equal to his height". Instead of centering the circle and the square at the navel, as other artists have done, Leonardo directs it to the pubic symphysis and expands the posture, forming a third geometric figure, the equilateral triangle, along the lower extremities. This change creates a pleasant sensation of balance and stability. The divine circle, centered on the navel, can be taken as a generative and maternal symbol, while the square, centered on the pubis, could be thought of as the product of man, "quadrangular", representing the earth and masculinity [4]. These Renaissance characteristics are attributed to Anthropocentrism.

Leonardo did not design internal cavities like the oral cavity, he did not contemplate teeth or other structures of the stomatognathic system. However, his observations are still so current and referenced, even in human Anthropometry.

I started my studies and the interest in human anthropometry, particularly on the size and more specifically on the length of the teeth, for developing therapeutic modalities for patients with gingival smile, combining techniques such as gingivoplasty and the application of botulinum toxin type A. The first technique is indicated when there is gingival overgrowth, and the second when there is excess gingival display caused by elevation of the upper lip. Both techniques applied together to favor aesthetics and orofacial harmonization.

In recent years, I have been developing a lot of research and among them, the attempt to establish the relationship between the length of the dental crown of the upper incisors and the cranial length, based on the vertex point (highest point of the skull) or on the trichius point (point which marks the beginning of hair implantation, determining the upper limit of the physiognomic height of the face) and the distance with the gnatio point (the lowest point of the chin).

Bibliography

1. Emison P. In: Leonardo. London: Phaidon Press Limited, 2011:127.
2. Sofat S. My Vitruvian Man. Acad Med. 2009;84(8):1075.
3. Williams MD, Rodning CB. "Vitruvian Man: metaphor of a "compleat" physician". Pharos Alpha Omega Alpha Honor Med Soc. 1997;60(3):22-27.
4. Creed JC. "Leonardo da Vinci, Vitruvian Man". JAMA. 1986;256(12):1541.

Volume 3 Issue 3 March 2020

© All rights are reserved by Irineu Gregnanin Pedron.