

LETTERS

A Consideration of Breast Imagery in Art as Depicted through Western Painting

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To the editor of *Archives of Plastic Surgery*,

I read with great interest the article in your March 2015 issue: "A Consideration of Breast Imagery in Art as Depicted through Western Painting," authored by Kun Hwang et al. [1]. The authors are to be commended on their observations of how artists depicted the female breast. Unfortunately, it appears that the authors were a bit lax in their methodology concerning anthropomorphic measurements (AM). Although it may be true that the female chest is not distorted if there is less than 15 degrees of rotation, there will be distortion if the torso is also flexed or leaning to the side or both. There will also be distortion of the breast's position and shape in relationship to the bony landmarks of the chest if one or both arms are raised above 90 degrees. In addition, from my experience in AM of the breast, it is almost impossible to determine the position of the manubrium and mid-point of the clavicle in a photograph or painted image, and certainly if the torso is rotated, flexed or distorted. Furthermore, in the present article the authors elected to have only one author do all the measurements and calculations to remove 'bias', but perhaps this just added more bias to the results. Having reviewed the images studied by the authors, I find that ten subjects have their arms at greater than 90 degrees, most have their bodies flexed or leaning, in some of the subjects the artist painted them with an intentional body distortion and two subjects have no landmarks visible at all. At best, all calculations and subsequent results were made based on educated 'guesstimations' (guess+estimation). In addition, although the author's intent was just to study artistic renditions of the female breast, they did not attempt to correlate their find-

ings with results of the reported clinical anthropomorphic studies [2-4]. Once again, I congratulate the authors for encouraging AM of the breast. I have always contended that if AM was a routine tool in aesthetic breast surgery, we would find that we could predict which anthropomorphic subgroups would experience excellent surgical results and which would be prone to complications and poor results. For those that are interested, I have gathered the paintings studied by the authors and they can be seen online in a Pinterest board I created: <https://www.pinterest.com/fixer1254/anthropology-plastic/>.

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Response to Letter: A Consideration of Breast Imagery in Art as Depicted through Western Painting

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It is an honor to receive feedback from an author whose article we have cited in our paper. Our paper addressed the measurement of the aesthetic female breast in the Western visual art of a specific era in order to develop a reference point for the design of breast augmenta-

tion and reconstructive operations.

Brown defined cultural universals (also called “anthropological universals” or “human universals”) as comprising “those features of culture, society, language, behavior, aesthetics and psyche for which there are no known exceptions” [1]. In other words, a cultural universal is an element, pattern, trait, or institution that is common to all human cultures worldwide. On the other hand, where we find differences among cultures, we might think that the masterpieces of a given era represent the culture and values of that period.

An early example of the body used as an identity marker in Western society occurred in the Victorian era, when women wore corsets to help themselves attain the bodily form they wished to possess [2]. Having a tiny waist was a sign of social status, as wealthier women could afford to dress more extravagantly and wear items such as corsets to increase their physical attractiveness [3].

We respond below to several of the points mentioned in the feedback.

We appreciate the point about the distortion of the chest when the torso is flexed or leaning to the side. In our study, we first drew costal margins. Then, the infrasternal angle covering the xiphisternal joint was determined, and other landmarks were also marked [4]. The mid-clavicular line was determined by the midpoint from the sternal notch to the lateral end of the shoulder. We believe that if we had chosen to evaluate the works of Lucien Clergue (1970–present), French fine art nude photographer, or Alfred Cheney Johnson, who produced 1920–30’s depictions of the Ziegfeld Follies showgirls such as Dorothy Flood, anthropometric measurements (AM) would have been much easier.

The feedback also included a valuable observation about the angle of the arm relative to the torso. In the paintings where one arm was adducted or abducted less than 90 degrees and another arm was abducted more than 90 degrees, the sternal notch to nipple (sn-n) and nipple to xiphoid process (n-xi) distances were measured only on the side that was adducted or abducted less than 90 degrees. In the two paintings in which both arms were abducted more than 90 degrees, their sn-n, and n-xi distances were not included in the data.

We agree with the feedback on the importance of comparing measurements of artistic works and those in a clinical context. In the version of the paper we initially submitted, we attempted to correlate our findings with the results of the reported clinical anthropometric studies. In the review process, however, the content had to be deleted because the number of references had to be reduced to 15. I would like to use this opportunity to introduce the deleted excerpt of the discussion section and the references that elucidate the issue of clinical correlation in the paragraph that follows:

Avsar et al. [5] measured 385 Turkish female undergraduate student volunteers (18-26 years of age) and stated that the ideal external view of the breasts without ptosis was observed in 35.1% of the volunteers. Agbenorku et al. [6] also measured 438 students of Ghana (16–22 years) and described the average distances from the nipple to the suprasternal notch (left, 20.97 cm; right, 20.3 cm), inframammary crease (left, 9.36 cm; right, 9.21 cm), and xiphoid area (left, 10.94 cm; right, 10.84 cm).

We hope to move “from strength to strength” (a medieval homiletic phrase) with the help of the comments of other researchers.

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