H31   Artists Contribution to Facial Reconstruction

Gloria L. Nusse, BFA*, Clay and Bones, 129 Stanford Avenue, Mill Valley, CA 94941; and Alison Galloway, PhD*, University of California, Santa Cruz, Anthropolgy Department, Social Science One FS, Santa Cruz, CA 95064

The goal of this presentation is to understand whether the artists incorporate their own anatomy into their work and how this tendency may be counteracted.

This presentation will impact the forensic community and/or humanity by addressing an aspect of facial reconstruction that has previously only received anecdotal attention. Artists may incorporate their own features into reconstructions by referring to their own faces for guidance. However, attention to instruction in facial anatomy appears to provide a way of avoiding this situation.

Facial reconstruction or approximation is a delicate balance between scientific analysis and artistic interpretation. If either exists without the other, the reconstruction appears both lifeless and vague or is a poor match to the individual. The question of accuracy in facial reconstruction is debated with claims of 10-60%. One fundamental aspect of these tests has been neglected, however, and this is the experience and talent of the artist.

In the present study, the authors assess whether or not beginning facial reconstruction artists unconsciously put their own facial anatomy in their work. The study attempts to find out if observers can identify which artist did which facial reconstruction when all the artists used the same skull and technique. Human subjects' approval from SFSU and UCSC was obtained for all participants.

Students enrolled in a scientific illustration course were asked to complete a half reconstruction based on identical model skulls as part of their regular assignment. Instruction in the technique was provided by an experienced reconstruction artist (GN). Photographs were taken of the reconstructions and the artists. Images were constructed of a "full face" by flipping the half reconstruction using Adobe® Photoshop® 6.0 and cropped to limit the image to the facial region. Photographs of the artists were similarly cropped to the facial region.

Groups of individuals with varying levels of skill were then asked to compare a selection of four skull reconstructions and six artist faces. Some were experienced anthropologists or graduate students; others work in identification of remains while others are undergraduate students with no exposure to forensic identification.

The four reconstructions selected showed differences in morphology, particularly in the midface. The associated artists also showed a range of facial features although all were young adult females. Preliminary results of the matching exercise show that there are clear preferences to associate particular facial reconstructions with artist faces. However, there is no clear pattern in which the correct match is made.

This study suggests that, with proper training, the tendency to rely on the artist's own anatomy may be minimized. Such training should include information on facial anatomy and the principles by which the soft tissue can be interpreted and individualized from the skeletal data.

Facial Reconstruction, Facial Approximation, Facial Anatomy