First serious consideration of skin properties. 23 bites were made in cadaver skin, none were measurably the same. Postural distortion was significant. Bitemarks were not reproducible.

100 models were compared to bitemarks made with selected aligned dentitions. Multiple matches were found in non-biting dentitions. In many instances, a dentition other than the biter was a better “fit” to the bitemark. Suggests significant possibility of false positives and false negatives.

Force per unit area was varied during controlled bites. Bite appearance was not predictable, nor did laceration reliably occur. A more important variable is tissue type.

Discussion with examples of why it is not appropriate to profile a biter or universally make distortion corrections in a bitemark on human skin.

Refutation of Rawson’s 1984 study claiming dental uniqueness. Statistics were used that took into account correlation and the non-independent nature of the human dentition. Matches were found in the populations studied.

Large population study establishing dental match rates of the anterior dentition. Orthodontic treatment had a dramatic effect, with a match rate of 42% in 110 dentitions.

Match rates determined in large population using 3D models and shape analysis.