

A RE-EVALUATION AND REVISION OF PUBIC SYMPHYSIS AND FOURTH
RIB AGING TECHNIQUES

by

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APPENDIX F

REVISED MORPHOLOGICAL GROUP DESCRIPTIONS FOR THE MALE RIB
ENDS AND PHOTOGRAPHS OF A TYPE SPECIMEN FOR EACH GROUP

*** Bone quality is a major determining factor in placing each specimen in a group. An individual may be moved up or down phases based solely on bone quality.***

Group 1, Males.

Group	Count	Mean	St. Dev.	Max.	Min.	Range
1	20	20.00	1.45	22	18	18-22

- *Pit is shallow and flat.
- *There are billows in pit.
- The pit is shallow U-shaped in cross section.
- The bone is very firm and solid, smooth to the touch, dense, and of good quality.
- The walls of the rim are thick.
- The rim may show the beginnings of scalloping.

(*) Indicates characteristic traits for each group.



Group 2, Males.

Group	Count	Mean	St. Dev.	Max.	Min.	Range
2	27	24.63	2.00	28	21	21-28

- *There is an indentation to the pit.
- *The pit is V-shaped in cross section.
- *The rim is well-defined and the edges are round.
- The rim is regular with some scalloping.
- The bone is firm and solid, smooth to the touch, dense, and of good quality.
- There is no flare to the rim edges; they are parallel to each other.
- The pit is still smooth inside, with little to no porosity.

(*) Indicates characteristic traits for each group.



Group 3, Males.

Group	Count	Mean	St. Dev.	Max.	Min.	Range
3	27	32.27	3.69	37	27	27-37

- *The pit is V-shaped.
- *There is a slight flare to the rim edges.
- The rim edges are becoming undulating and slightly irregular.
- There may be remnants of scallops, but they look worn down.
- There are no bony projections from the rim.
- There is porosity inside the pit.
- The bone quality is good; it is firm, solid, and smooth to the touch.
- The rim edges are rounded, but sharp.

(*) Indicates characteristic traits for each group.



Group 4, Males.

Group	Count	Mean	St. Dev.	Max.	Min.	Range
4	47	42.43	2.98	48	36	36-48

- *The pit is deep and U-shaped.
- *The edges of the pit flare outwards, expanding the oval area inside the pit.
- The rim edges are not undulating or scalloped, but are irregular.
- There are no long bony projections from the rim.
- The rim edges are thin, but firm.
- The bone quality is good, but does not feel dense or heavy.
- There is porosity inside the pit.
- In some cases, two distinct depressions are visible in the pit.

(*) Indicates characteristic traits for each group.



Group 5, Males.

Group	Count	Mean	St. Dev.	Max.	Min.	Range
5	76	52.05	3.50	59	45	45-59

- *There are frequently small bony projections along the rim edges, especially at the superior and inferior edges of the rim.
- The pit is deep and U-shaped.
- The rim edges are irregular, flared, sharp, and thin.
- There is porosity inside the pit.
- The bone quality is fair; the bone is coarse to the touch and feels lighter than it looks.

(*) Indicates characteristic traits for each group.

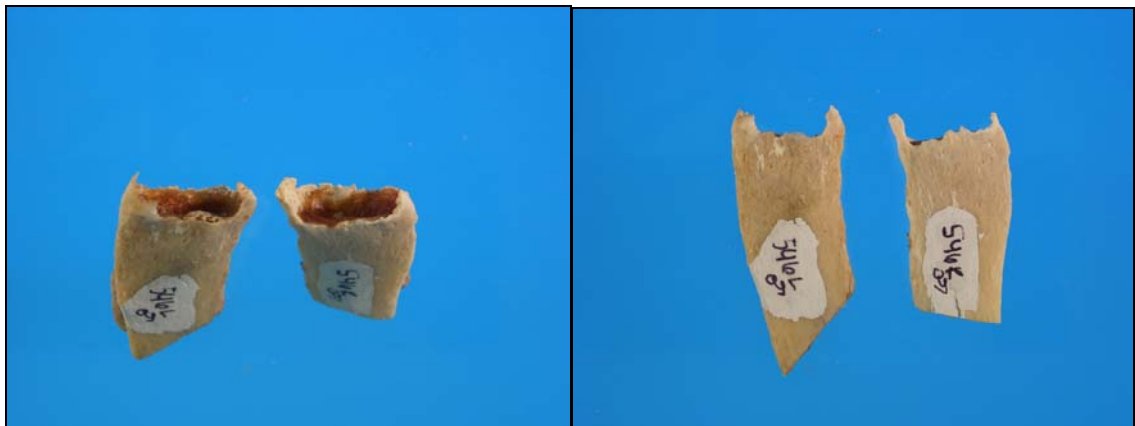


Group 6, Males.

Group	Count	Mean	St. Dev.	Max.	Min.	Range
6	61	63.13	3.53	70	57	57-70

- *The bone quality is fair to poor.
- *The surfaces of the bone feel coarse and brittle.
- *The bone is lightweight.
- *There are bony projections along the rim edges, especially at the superior and inferior edges, some of which may be over 1 cm long.
- The pit is deep and U-shaped.
- The rim is very irregular, thin, and fragile.
- There is porosity inside the pit.
- In some cases, there may be small bony extrusions inside the pit.

(*) Indicates characteristic traits for each group.



Group 7, Males.

Group	Count	Mean	St. Dev.	Max.	Min.	Range
7	75	80.91	6.60	97	70	70-97

- *The bone is very poor quality, and in many cases, translucent.
- *The bone is very light, sometimes feeling like paper.
- *The bone feels very coarse and brittle to the touch.
- The pit is deep and U-shaped.
- There may be long bony growths inside the pit.
- The rim is very irregular with long bony projections.
- In some cases, much of the cartilage has ossified and window formation occurs.

(*) Indicates characteristic traits for each group.



VARIANT, Males.

Group	Count	Mean	St. Dev.	Max.	Min.	Range
Variant	22	48.95	10.49	69	27	27-69

- In some cases, the cartilage has completely or almost completely ossified. The ossification tends to be a solid extension of bone, rather than a thin projection. All of the bone is of very good quality, including the ossification. It is dense, heavy and smooth. In these instances, bone quality should be the determining factor. There are probably other factors, such as disease, trauma, or substance abuse that caused premature ossification of the cartilage. When the individual is truly very old, the bone quality will be very poor. Be aware of these instances where a rib end may appear very old due to ossification of the cartilage, but is really actually a young individual, which can be ascertained by bone quality. In these cases, consult other age indicators in conjunction with the rib end.

