Dating Formulas in Archaeology

Mean Ceramic Date
South 1972 and 1977

\[
Y = \frac{\sum X_i \times f_i}{\sum f_i}
\]

where
- \(X_i\) = the median date for manufacture of each type
- \(f_i\) = the frequency of each ceramic type
- \(n\) = the number of ceramic types in each sample

Pipestem date
Binford 1961 based on Harrington 1954

\[D = 1931.85 - 38.26x\]

where \(x\) = the average bore diameter of the sample

Window glass

Ball formula (Ball 1983)
\[D = \frac{M - 1.00 \text{ mm}}{0.0286} + 1800\]

M = mean thickness in mm

Moir formula (Moir 1987)
\[(84.22 \times M) + 1712.7\]

take at least three thickness measurements with a digital calipers to determine the mean thickness of the sherd; works best for glass dating between ca. 1780 - 1920

Lower Ohio Valley Mississippian
Wesler 1994, revised 2001

handle formula
\[D = \text{A.D. 1500} - 500r\]
where \(r\) = thickness/width

plate rim formula
\[D = \text{A.D. 1175} + (1450 - 1175)(x/122)\]
where \(x\) = rim width (mm)
Sources:

Ball, Donald B.

Binford, Lewis R.

Harrington, J. C.

McKelway, Henry S.

Moir, Randall W.

South, Stanley


Wesler, Kit W.