the Mantel Test

Test statistic, z, denotes magnitude of correspondence.

$$Z = \sum_{i=1}^{N} \sum_{j=i+1}^{N} x_{ij} y_{ij}$$

$$SS_X = \sum_{i=1}^{N} \sum_{j=1}^{N} (x_{ij} - \bar{x})^2$$

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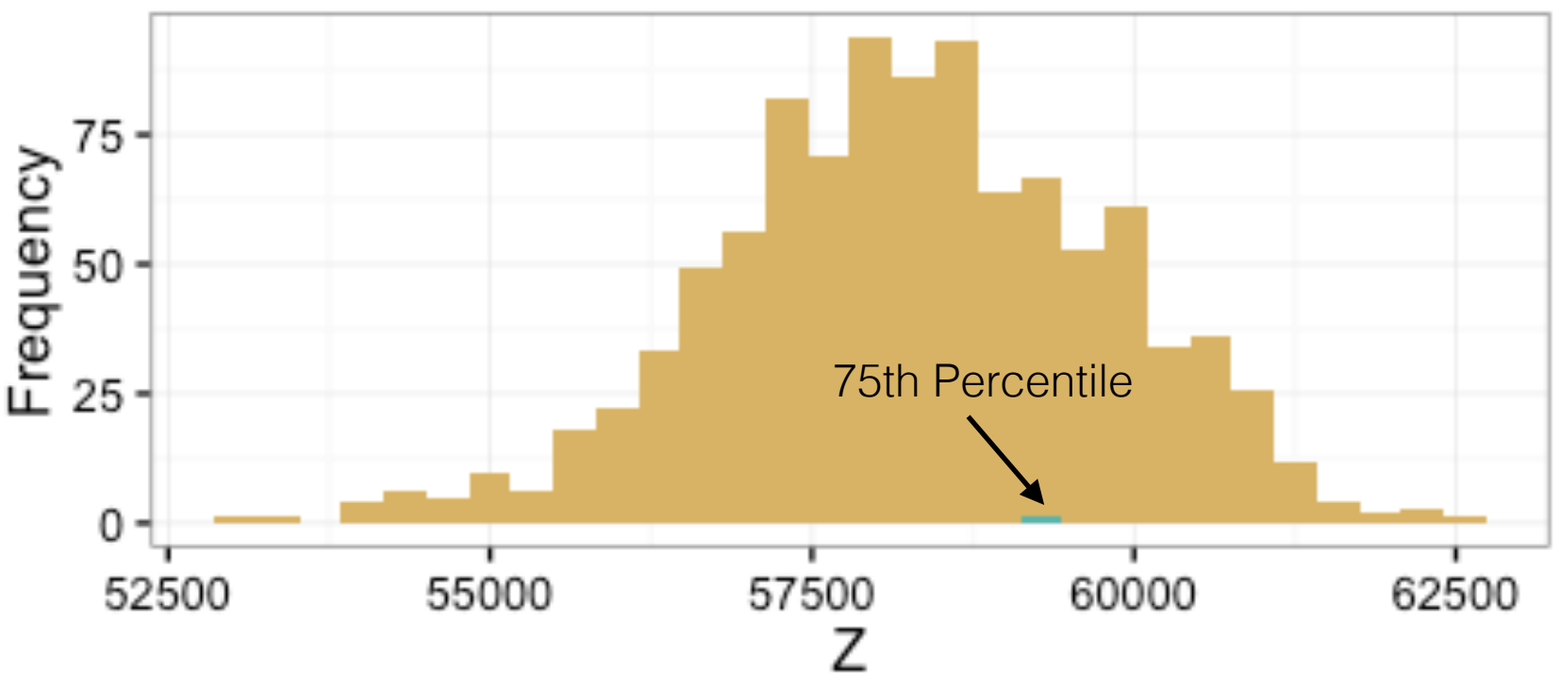
Mantel Significance

- Based upon the magnitude of the **Z** statistic.
- Assuming H_O is true, permute **Y** and recalculate distribution of **Z** values.

H_O: Euclidean separation independent of Nei's Distance



$$\rho = 0.039$$