



The Improper Application of Statistics in "The Lost Tomb of Jesus" **By Stephen Pfann**

"Is not this the carpenter's (Luke: Joseph's) son? Is not his mother called Mary? And are not his brothers James and Joseph (Mark: Joses) and Simon and Judas? And are not all his sisters with us?" (Matt. 13:55-56a)

"The filmmakers asked Andrey Feuerverger, professor of statistics and mathematics at the University of Toronto, to study the likelihood of the cluster of resonant names found in the Talpiot tomb being merely coincidental. He concluded, according to the Discovery Channel, that 'the odds are at least 600 to 1 in favor of the Talpiot Tomb being the Jesus Family Tomb. In other words, the conclusion works 599 times out of 600.'" *Jerusalem Post*, Feb 27, 2007

The starting point for the supposed scientific investigation of a tomb in Jerusalem's East Talpiot neighborhood is an amazing claim that statistically, the viewer must accept the fact that the tomb is certainly (600 to 1 probability) the tomb of Jesus of Nazareth and his family. This statement is based upon a number of fallacies and a general misuse of statistics.

1) *What database serves as the basis for establishing the probability of this claim?* There are no surviving genealogies or records of family names in Judea and Galilee to make any statement concerning the comparative frequency of various personal names in families there. Only Jesus' genealogy appears to have survived, as presented in the Gospels (see Matthew 1:1-17, Luke 3:23-34, together with the list of his brothers cited above). For Prof. Feuerverger to make any statement concerning the actual identification of the family is pure speculation, since there are no other complete family lists available for comparison, and is very inappropriate within the rubrics of his discipline

What can a statistician justifiably say? Perhaps only that it would take another 600 tombs of similar size, form and contents to arrive at one with ossuaries bearing the identical names and numbers of this one. Even for this, there are a number of hurdles to cross:

2) The records of who and how many individuals were actually buried in any given family tomb in 1st century Judea and Galilee cannot be ascertained solely on the basis of examining the extant names on the surviving ossuaries in the tomb. This is due to the following circumstances:

a) Most tombs have already been visited and looted in antiquity or in recent times, leaving the record of their original contents incomplete.

b) Not all ossuaries are saved during the excavations so as to be stored and registered. Oftentimes, only ossuaries with inscriptions, decorations or both are kept.

c) According to L. Y. Rahmani, *A Catalogue of Jewish Ossuaries*, of 917 ossuaries in the collections of the State of Israel, only 231 (25.2%) are inscribed with names. The East Talpiot tomb is unusual in that 6 of its 9 registered ossuaries (66%) were actually inscribed with names. If all tombs contained similar percentages of inscribed bone boxes, then a comparative census between various tombs would be sensible and possible. However this is certainly far from being the case.

d) Those ossuaries which bear names have often contained the remains of more than one individual.

The names of these individuals will never be known. (For example, the Caiaphas' ossuary contained the remains of several individuals, including one middle aged man.)

Thus, the most one can hope to do in establishing a working database upon which to base a statistical probability, is to make a general overall survey and census of inscribed ossuaries. This is a useful enterprise when utilizing the entire corpus of ossuaries to determine the proportions of names and the ethnic character of the general population. *Remarkably, only 72 different Jewish names are represented among the 286 personal names found on the 231 inscribed ossuaries (bearing in mind that some ossuaries contain two or three names in the formula "x son of y")!* These 72 personal names include their shortened forms and their Greek or Latin equivalents. What is the implication of this for establishing a statistical probability of occurrence?

Compared with the large pool of individual personal names in use today in North America and Europe, a very small pool of personal names was normally used when naming a child in first century Judea and Galilee. *Again, remarkably, a mere 16 of the 72 personal names account for 75% of the inscribed names (214 in all).* The frequency list of personal names on inscribed ossuaries is as follows:

| | | |
|------------------------------|-----|--|
| Salome (Shalom, Shlomzion) | 26 | |
| Simon (Shim'on) | 26 | |
| Mary (Miriam, Maria) | 20 | |
| Joseph | 19 | |
| Judas (Yehudah) | 18 | |
| Lazarus (El'azar, Eli'ezer) | 16 | |
| Joezer (Yeho'azar) | 13 | |
| John (Yehonan) | 12 | |
| Martha | 11 | |
| Jesus (Yeshua') | 10 | |
| Saul | 10 | |
| Ananias (Hananiah) | 10 | |
| Matthew (Mattitياهو, Mattai) | 8 | |
| Jonathan (Yehonatan) | 6 | |
| Jacob/James (Ya'aqov) | 5 | |
| Ezekias (Hezekiah) | 4 | |
| Total names 4x or more | 214 | |

Other less common names:

3x: 'Amah, Hanan, Shalum, Shappira

2x: 'Azaviah, 'Ahai, Haniah, Hanin/Hanun, Yatira, 'Ezra, Qariah, Shamai, Seth

All of the names that are ascribed in the Gospels to Jesus of Nazareth's father (Joseph), mother (Mary) and brothers (Jacob/"James", Joseph/Josehs, Simon, and Judas) are found in the list of the 16 sixteen most commonly inscribed names. In fact, four of these names, Simon, Mary, Joseph and Judas are among the top five in the frequency list of names (109 of 286 names: 38% of the entire list of names).

Concerning the East Talpiot tomb, only one name among those of Jesus' brothers Joseph/Joseh, can be identified on the inscribed ossuaries. All of the other siblings' names, including "James"/Jacob, are curiously lacking. Even the name Joseh is not inscribed as a "son of Joseph" or any other, that is to say, where one would expect "Joseh son of Joseph" in a purported Jesus' family tomb, one does not find it.

The names Mary* (2x), Joseph/Joseh (2x), Judas and even Jesus, found in the Talpiot tomb should well be expected there (or in almost any other tomb in the area, for that matter). *These are simply the most*

common names of the day. The only difference is that the Talpiot tomb has so many names preserved among its ossuaries! If other tombs contained so many inscribed ossuaries, the name census in most other tombs would be very much the same. This being the case, there very well could be numerous tombs which could have claim to the title "a Jesus' family tomb." However in all cases, as in this, there would be no compelling reason to connect them with Jesus of Nazareth!

*The naming of Mary Magdalene as "Mariamne" (or "little Mary", a diminutive) in a fourth century Gospel of Philip should be considered irrelevant to the discussion, being three centuries too late for consideration.

L. Y. Rahmani, *A Catalogue of Jewish Ossuaries*, Israel Antiquities Authority and the Israel Academy of Sciences and Humanities (Jerusalem: 1994)

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