

One of the people we are lucky to have as a member of the blog is Dr. Brent Nongbri, who did his PhD at Yale in 2008 and who is now a Post-doctoral Research Fellow at Macquarie University (see [http://www.mq.edu.au/about\\_us/faculties\\_and\\_departments/faculty\\_of\\_arts/department\\_of\\_ancient\\_history/staff/dr\\_brent\\_nongbri/](http://www.mq.edu.au/about_us/faculties_and_departments/faculty_of_arts/department_of_ancient_history/staff/dr_brent_nongbri/) ). Among other things Brent is one of the most knowledgeable and productive scholars working in the field of palaeography – the discipline that deals with the dating of ancient manuscripts. He has been following this discussion of a possible first-century copy of the Gospel of Mark, and to my great appreciation has agreed to do a GUEST POST for us all, on an area many of us are very interested in. How would we know a first-century manuscript if we saw one??? Here is his succinct and lucid summary of how scholars date ancient manuscripts, from a leading authority, in his own words. Many thanks, Brent!

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Despite all the excitement about the alleged “first century” fragment of Mark’s gospel, [a recent report](#) suggests that, in fact, *nobody* who has been talking publicly about this fragment has actually *seen* the papyrus! (The possible exception is [Scott Carroll](#), the man who has gained notoriety in recent years for [buying up early Christian papyri on behalf of wealthy American collectors](#)). So we should probably now just let this story die a quiet death. But before we do, it might be a good idea to take the opportunity to reflect a bit on just how we go about establishing dates for undated Greek manuscripts.

A couple things about this story made those of us who spend our days studying early Christian manuscripts scratch our heads. It wasn’t so much the claim that there was a fragment of Mark that might have been copied in the first century. That would be surprising, but also interesting and exciting. What was odd was the *specificity* of these claims. Take Craig Evans’ comments as quoted in the [LiveScience story](#) that rekindled interest in this fragment: “Evans says that the text was dated through a combination of carbon-14 dating, studying the handwriting on the fragment and studying the other documents found along with the gospel. These considerations led the researchers to conclude that the fragment was written before the year 90.” Or Dan Wallace’s statements from an [interview](#) back in 2012: “it’s dated by one of the world’s leading paleographers, whose name I’m not allowed to reveal yet...his understanding is it definitely is [first century].” Or Evans again here on [Bart’s blog](#): “a fragment of Mark...which those studying it think dates to the 80s.”

To those of us who work regularly on early Christian papyri, these are really confusing claims. “Before *the year 90*,” “*definitely* first century,” “*dates to the 80s*.” Could any of the methods of dating mentioned by Evans and Wallace actually produce such a specific date?

## Palaeography

Palaeography, the analysis of handwriting, is, for better or worse, the main way that we assign dates to undated ancient manuscripts. This method can work reasonably well when you have lots of examples with exact dates—you can make informed comparisons of undated samples of handwriting with dated samples. Unfortunately, securely dated samples of “literary” Greek handwriting of the Roman era are not as numerous as we would like. Competent palaeographers thus hesitate to give highly specific dates, usually allowing at

least a 50-year window. And there are good reasons to think that window should be even wider, up to a century or more. To name just three: First of all, ancient scribes could have pretty long working lives, 30-50 years. Second, similarities in writing style were, unsurprisingly, passed from teachers to students and thus persisted for multiple generations. And finally, ancient scribes were perfectly capable of writing in different styles that we associate with different time periods (for detailed evidence of these claims, you can see a recent article of mine on the topic [here](#)). So palaeography doesn't give us such specific dates.

## Radiocarbon dating

Radiocarbon analysis is great when we're dealing with questions of large chunks of time. For instance, radiocarbon dating showed conclusively that the Shroud of Turin was a product of the 13<sup>th</sup> or 14<sup>th</sup> century and not the first century. But it's less helpful when we're talking about smaller periods of time. That's because radiocarbon dates (when they are reported accurately) are expressed in terms of ranges and probabilities. For example, about 10 years ago, some linen from the Qumran caves where the Dead Sea Scrolls were found was [subjected to radiocarbon analysis](#). The results looked like this:

50 BC - 80 AD, probability 95.4%

5 BC - 55 AD, probability 57.6%

What we get are ranges of dates and probabilities that the *actual date* of the artifact falls within this range. So the wider the range, the greater the probability that the actual date of the artifact falls somewhere within that range. To get up to around 95% probability, you have a range of over a century. And this presumes optimal testing conditions, which we don't always have (In the 1990s, some of the Dead Sea Scrolls themselves were subjected to radiocarbon analysis, but it was later discovered that the parchment samples were probably contaminated with modern castor oil in the 1950s, so all those results are suspect. But that's another story...).

## Other documents in the mask

This fragment of Mark is said to come from the waste papyrus used to make a mummy mask. Let's say such a mask is taken apart, and it contains a bunch of documents (letters, receipts, tax records, etc.) that all date within a given period, say from the years 220-100 BC (most mummy masks made with waste papyri are Ptolemaic, not Roman). If any undated literary fragments are found together with those documents, it's a safe bet that the literary pieces probably date to roughly the same period. But it's important to remember that the dated documents in such a mix give us what's called a *terminus post quem* (literally the "time after which"), the *earliest possible* date the mask was made. So the mask was made *no earlier* than the year of *the latest dated* material in the find. The mask could have been made considerably later. Even in these circumstances, then, you're not going to end up with a really narrow date for any undated literary manuscript that turns up.

At the end of the day, then, the claim that this fragment of Mark was "written before the year 90" is a bit dubious. Really the only way that could be a true statement is if the copy of

Mark were written on a roll (instead of a codex) and the back of the roll was then reused for a document (like a letter or a receipt) that had an exact date in the year 90. And if that was the case, Wallace or Evans should have just said so.

So, yes, it's time for this story to go away until some actual evidence appears in print. But the next time we see these kinds of claims (and there probably will be a next time), it's a good idea to keep in mind how tenuous this whole process of assigning dates to undated manuscripts really is. If you hear that an early Christian manuscript dates from "circa" some specific year, proceed with caution. Palaeography and radiocarbon analysis are helpful, but these methods give us pretty wide ranges of dates, not the really specific dates we might like to have.



[More on Greek Numerals](#)

[Another \(Final!\) Insight into that Mummy Mask and Papyrus](#)