## Serifed Greek type: Is it "Greek"?

Antonis Tsolomitis

#### 1 Introduction

I grew up with this idea around me: serifs are not "Greek". Fonts that use them in the Greek alphabet are "latinizations" of the form of the Greek letters. A kind of æsthetic imperialism. And indeed, many people still believe this. This idea has been pushed to extremes, so that for example Matthew Carter in his article "Which came first, the Greeks or the Romans?" (see [1]) feels the need to apologize for having fallen into this kind of "sin", saying more or less that the only excuse he has is that this was the demand of the Greek market at the time he designed beautiful fonts, such as his Greek Baskerville.

I am now convinced: this is simply false. In short, it is false because it is based on the way the first Greek fonts were developed and not on the history of the Greek forms themselves.

### 2 What is "Greek"?

Many changes have occurred on the Greek peninsula in the last 3000 years. Many things found in this vast amount of time may be considered non-Greek. What can not be considered to be "non-Greek" is the writing of Greek people until the time that the Greek Gods stopped being worshipped by the great majority of the inhabitants, approximately at the time of what came to be known as the "Byzantine Empire". Several arguments can be made against the Byzantine era being deemed a Greek era. But no such argument can be made for the era before that. Let us see such an important example. We are in 156 CE. Herodes Atticus, a rich and generous Roman, lives in Athens, isolated from Rome and fully integrated into Athenian society. His younger daughter Markia Athenais dies of an unknown illness. The supreme court of Athens (Άρειος Πάγος) before Athenais' death votes for putting a statue of her in the Asklipieion, the temple of the God of Health and his daughter Hygeia, on the south slope of the Parthenon, to ask the God for his help. The Greek engravers write on Pentelic marble (the most famous marble of that era) the inscription seen in Figure 1. Is this Greek script? It definitely is. Does it have serifs? It is full of serifs of several kinds. The text (with spaces and punctuation to facilitate reading) is reproduced in Figure 2 with the new titling font "Athenais", in honour of the family of Herodes Atticus whose generosity offered so much to Athens. The text is fully serifed and more than that, it has three ligatures: M=N+Hin the word " $\Psi H\Phi I \Sigma AMENH \Sigma$ " (=voted),  $\Delta = \Delta + A$  in



Figure 1: The pedestal NK<sub>14</sub> from the archælogical site of the Athens Parthenon.

the word " $\Delta I \Delta \Delta \Sigma KA \Lambda O Y$ " (=teacher), and ' $\Xi = T + \Xi$  in the word " $\Theta Y \Gamma A T E P A$ " (=daughter). The letters  $\Phi$  and  $\Psi$  dramatically extend below the baseline and above the capital X-height. The letter  $\Xi$  is the letter Zeta (crossing it becomes a  $\Xi$ , Xi). The symbol z is an ornament. The inscription also contains many alternative characters that we will discuss below.

## 3 Origin of the pedestal

This pedestal is exposed today in the Asklipieion in the south slope of Athens' Parthenon. It is located exactly on the "Peripatos" (=walking path), next to the Herodion theater. It was brought to my attention by friends from YSEE, the Supreme Council of Hellenes Ethnikoi, the people that continue to worship the Greek Gods and was recently recognized by the Greek State as one of the few religions in Greece that can produce legally binding results (e.g., marriages).

According to the Athens Ephorate of Antiquities [2], the pedestal is classified as NK14 (see [3], [4] or [5]), it is made of five fragments of Pentelic marble welded together. It was found in 1876 in the Asklipieion area, built into the foundations of a christian church. It has a rich nape and base. The top

ΤΗΣ ΕΞ ΑΡΕΙΟΥ
ΠΑΓΟΥ ΒΟΥΛΗΣ
ΥΗΦΙΣΑΜΕΝΗΣ
ΜΑΡΚΙΑΝ ΑΘΗΝΑΙΔΑ•ΚΛ•ΗΡΩΔΟΥ•ΦΛ•ΜΑΚΕΡ,
ΦΙΛΟΥ ΚΑΙ ΔΙΑΣΚΆΛΟΥ ΘΥΓΑΈΡΑ.

ΙΑΚΟΡΕΥΟΝΤΟΣ ΕΥΔΗΜΟΥ ΤΟΥ ΕΡΜΕΙΟΥ ΓΑΡΓΗΤΤΙΟΥ•ΥΠΟΙΑΚΟΡΕΥΟΝΤΟΣ ΕΥΑΓΓΕΛΟΥ
ΤΟΥ ΔΗΜΗΤΡΙΟΥ•ΓΑΡΓΗΤ.

**Figure 2**: The text from the pedestal, typeset in the new Athenais font.



Figure 3: The location of the temple in the area of Athens Parthenon.

surface has a recess for the placement of the statue of Markia  $A\theta\eta\nu\alpha\dot{\imath}_{S}$  (full name: Marcia Annia Claudia Alkia Athenais Gavidia Latiaria), the younger daughter of Herodes Atticus. The area was re-organized after the discovery of the Asklipieion temple in 2011 (of course, only the foundations were found); there has been some partial restoration of a few columns (see Figure 4), and the pedestal was put in place recently.

The people of YSEE asked me if I could digitize the lettering as a font. The result of this work is demonstrated above. The font, named "Athenais", is available from the YSEE site (http://www.ysee.gr).

## 4 More about the font

The font was designed so that one can use the idea of the extended  $\Phi$  and  $\Psi$ . Since these letters appear rarely in Greek text, more letters use the extended form in this font. These are



All extended characters have several heights.



Figure 4: The partially restored temple as it stands today.

As an example, here is the letter T (the first is at regular height):



Alternative characters are provided and these are:

In particular, Alpha is given in three forms as it appears on the pedestal:



The last Alpha is very interesting in that it uses a swash type serif which looks like this magnified:



The serif of  $\Psi$  is also very interesting as it reminds us of serifs from Palatino (say of Palatino X):



Another type of serif is used on the top right of M. In the next magnification check that the top left and top right serifs are not the same:



The ligatures provided are:

In the modern world one can not escape the need for Arabic numbers and some punctuation. So these have been added and the numbers 4, 6, 7 and 9 are provided in variable heights:

### 5 Use of the font

In order to make it possible to use the font in a beautiful way one needs to scale parts of the title she' is typesetting. And then the need arises to balance the weight of the scaled parts. Thus the font is provided in several weights to make this possible. For example, if we write "University of the Aegean" in Greek, we may do it this way:

# TANETISTHMIO A L'AIOY

The first word is not at the same size as the second word so that the extended letters can interact nicely. To balance the color we used a heavier version for the first word.

## 6 Comments on the lowercase Greek

The font does not contain lowercase. It is a titling font. In this section we return to the first question we posed. Are serifs a non-Greek characteristic? Lowercase appeared after the 8th century CE as an alteration of the capital letters. They appeared when the monks were trying to rewrite the ancient texts, since they were in great demand from the West (and paid well). They consciously altered the forms of the Greek capital letters so that they could be written with fewer strokes, which saved them time and increased their income. Later, people such as Aldus Manutius and Claude Garamond designed the Greek lowercase letters in fonts such as Grec de Roi. The monks' writing, as well as Grec de Roi, is very hard to read. In my opinion it is not just an alteration of the Greek letters. It is clearly a deterioration of the letters as a result of speedy and bad quality writing of the monks.

Is this Greek? Let us follow this line of thinking: some people, that consider themselves non-English by their own writings, copy texts of the best English calligraphers and really destroy their form. And the result is "English" letters!? No reasonable person can accept this.

I think it is proper to say the following: the existence of lowercase letters is a fact and we are used to them. To return them to forms that match capital Greek serifed letters is only making them Greek and not Latin.

#### 7 Conclusion

A serifed Greek font may be beautifully designed or ugly. But the existence of serifs or their absence can not justify Greek or Latin characteristics.

A serious designer that respects the Greek culture and with intentions not to cause any harm, but rather to promote type art, can decide to use or not to use serifs without blaming herself for "latinization" or anything else.



#### References

- [1] Matthew Carter, Which came first, the Greeks or the Romans? Greek Letters, From Tablets to Pixels, ed. Michael Makrakis, Oak Knoll Press, 1996.
- [2] Personal communication.
- [3] Στ. Α. Κουμανούδης, Αθήναιον 5 (1876) 324 αρ. 3.
- [4] IG II<sup>2</sup> 4073.
- [5] Levensohn M., Inscriptions on the South Slope of the Acropolis, Hesperia 16, 1947, 73 map number 125, fig. 1.
  - Antonis Tsolomitis
     University of the Aegean
     Department of Mathematics
     832 00 Karlovassi
     Samos, Greece
     http://myria.math.aegean.gr/~atsol

**Addendum.** This article uses GFSNeoHellenic at 11 pt for the main text font, designed by the Greek Font Society in 1993–1994 (ctan.org/pkg/gfs), sponsored by the Archæological Society at Athens. The samples are typeset in the new Athenais font.

<sup>&#</sup>x27; I dislike slashes in text such as he/she. A coin is flipped, I will write in feminine.