Vindolanda "Calendar" Fragment and the Autumnal Equinox

During excavations at Vindolanda Roman Fort in Northumberland, England in 2008 archaeologists recovered a bronze fragment which appears to be part of a calendar. The fragment is 83 x 21 mm, and is clearly labelled "September." It also includes parts of fifteen uniform holes (representing two-day intervals) and labels for the ides, nones, and kalends. In addition, the letters "AE" are inscribed perpendicularly to the other text, between the holes representing the twenty-first and twenty-third of the month. This is clearly an abbreviation for aequinoctium, that is the autumnal equinox. In the years since its discovery this fragment has received significant attention from scholars. In 2009, Lewis argued that the fragment was part of an anaphoric water clock as described by Vitruvius (De Arch. IX 8.8-15). Others have argued against this point, preferring instead to see the fragment as part of a parapegma (calendar) like that referred to by Cicero (Att. 5.14.1, 15.1) (Meyer 2013, Birth forthcoming). With this assessment in mind, Birth argues that the Vindolanda calendar's discovery near the remains of a granary within the fort at Vindolanda suggests that it served an agrarian or commercial purpose. Meyer, on the other hand, stresses the discovery of the fragment near the headquarters building and the potential ideological use of the calendar as a means by which to synchronize official records and correspondence as well as religious observances.

The fact that this fragment was discovered in an unstratified context makes it impossible to determine with which building it ought to be associated, or indeed to what period between the second and eighth centuries the fragment dates. Through close examination of this piece, related calendrical artifacts, and literary and documentary texts this paper will explore the significance of the autumnal equinox as an indicator of the possible uses and origin of this artifact.

For example, one might assume that the emphasis placed on the equinox on the Vindolanda fragment is indicative of a concern with astronomical and astrological matters. The Grand fragment (CIL XIII.2.1 5955), which most closely resembles the Vindolanda fragment, also includes a label for the autumnal equinox. However, the Salzburg fragment (Benndorf, Rehm et al. 1903), which is elaborately decorated with astronomical and astrological information includes no clear indication of the vernal equinox, although this portion of the fragment survives. This suggests that the equinox had a significance to the maker or user of the Vindolanda fragment that extended beyond the astronomical or astrological.

This paper will further investigate the reason for the inclusion of the equinox on the Vindolanda fragment by looking at literary and documentary sources that contain information about equinoxes and their uses. For example, Bede notes that John the Baptist was conceived on the autumnal equinox (De Temporum Ratione 30 (374)) and uses equinoxes and solstices to calculate the dates of other significant events in the Christian calendar. However, he also recognizes that the date of the equinoxes of his own time did not correlate with those of Christ's lifetime and, therefore, he is eager to observe the autumnal equinox several days earlier than its commonly recognized date of September 24 for religious purposes. This may explain why the equinox on the Vindolanda fragment is marked on September 22 or, perhaps, 23. Vindolanda has produced several early Christian artifacts and an early church not far from where the calendar fragment was discovered. It is very possible that we ought to think about the Vindolanda fragment in this context. There are many intriguing questions about this atrifact and several of them revolve around the significance of the autumnal equinox and the date assigned to it. This paper will address these issues and present the most likely hypotheses about the date and purpose of the Vindolanda calendar.

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