Ptolemy's Geography

this text reports a work in progress by Anthony Durham

The Geography or Γεωγραφική Ύφήγησις of Ptolemy or Κλαύδιος Πτολεμαῖος is the number-one source of information about "tribes" in Roman Britain, and it supplies latitude-longitude coordinates for over 130 named locations (of settlements, rivers, islands, promontories, etc).

Understanding of Ptolemy has been limited by three main factors. One is language: the source text is written in Greek and many valuable commentaries are in German. The second is mathematics: Ptolemy's positions on the globe are not easy to convert into modern map positions. The third is cost: a private individual could easily lay out \$1000 buying all the key publications (and may not easily be able to see them in a library), while GIS (geographical information system) programs are notoriously expensive to buy and to learn. In Britain a fourth factor is important: many academics are unwilling to accept how little the medieval Celtic languages have contributed to understanding Ptolemy's names.

The definitive source for the Greek text is by Stückelberger and Graßhoff in Basel. Locations in Britain have been typed into an Excel spreadsheet posted here, where $\pi o \lambda \epsilon \iota \varsigma$ ('cities', i.e. settlements) are in red, river and estuary mouths are in green, and coastal features are in blue. The column headed S shows which "rotational group" Strang assigned a name to, where A = south coast, B = M4 corridor, C = to Wales, D = north, E = north-east, and S = Scotland. And the column headed B shows which "transformation unit" the Berliners assigned a name to.

Much has been written about Ptolemy's locations in Britain. Ptolemy appears to have built his map of Britain by sticking together a series of local maps, like miniature tectonic plates, a point that was first seriously addressed by Alastair Strang (1997). Then a group in Berlin addressed those issues for Germany and its neighbours in one book, and followed up with another about the rest of Europe, including Britain. A translation into English of the German introduction of the first book is here, which explains some issues of cartography and data handling very well. There is now an annotated translation into English of Ptolemy's theoretical chapters.

A project is now underway, to re-do the work of Strang and the Berliners on Britain with a more up-to-date understanding of names and places. Watch this space! Until then, here are some references to work done on a range of areas.

Christian Marx investigated Ptolemy's <u>coordinate</u> handling, 2102, <u>Scotland</u> in 2014, and the west coast of Africa in 2015.

Dmitri Gusev and colleagues have applied new mathematical tools to <u>Britain</u>, and to <u>India</u>.

Daniel Mintz has looked at Ptolemy's mathematics.

Angeliki <u>Tsorlini</u> has looked at Greece.

Alexander Kozinsky about Bohemia.

Eujenio <u>Lujan</u> has looked at Galatia.

Darcy and Flynn looked at Ireland, and Martin Counihan has looked at its tribes.