Ptolemy: reconstrucció de mapes - coordinates

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Hi ha algun exemple a Internet De la creació de mapes plotejant les coordenades dels punts de la costa, dels diferents paisos i llavors unint els punts?
jo el vaig trobar una vegada amb google, però ara no ho trobo

Ptolemeu no va deixar almenys no han perdurat cap mapa dibuixat el que queda és la geografia de Ptolemeu amb les longituds i les latituds de totes les ciutats de l'Imperi Romà Uns monjos al segle 13 i 14 van posar aquestes coordenades sobre un paper i unint. les ciutats de la costa van assolir fer un dibuix d'Europa i Àfrica o sigui del món conegut les coordenades. que tenia la geografia de Ptolemeu la latitud estava amb una precisió molt bona ja que és l'alçada de l'estrella polar al Pol Nord (al Pol Sud no sé quant van trigar a trobar la Creu del Sud) Però la longitud es calculava per estima, llavors hi ha errors força grans en longitud, que és el que causa aquests errors en el dibuix en els mapes de Ptolemeu

Els portolans mallorquins estaven fets presumiblement marcant una triangulació amb el compàs i encara que a tota la Mediterrània Hi ha una desviació del Nord és gairebé la mateixa a tot arreu i els van sortir uns mapes gairebé perfectes.

Absolutely! You're describing a fascinating and historically significant aspect of cartography. The process of plotting coordinates and connecting them to form a map is fundamental, and what you recall about Ptolemy's Geography being used this way by later monks is spot on.

It's common to have trouble finding something specific you saw on Google before, especially if the search terms aren't just right. What you're looking for is often referred to as:

Reconstructions of Ptolemy's maps from his coordinates.
Plotting ancient coordinates to recreate maps.
Digital reconstructions of historical maps.

Reconstructing Ptolemy's Maps Today
Yes, there are definitely examples on the internet of exactly what you described! Modern cartographers, historians, and digital humanities projects have undertaken precisely this task: taking Ptolemy's Geography (his list of latitudes and longitudes) and plotting them using modern software to visualize the world as he described it.

You can find numerous examples by searching for terms like:

"Ptolemy map reconstruction coordinates"
"Ptolemy's Geography modern mapping"
"Ptolemy coordinates visualized"
"Digital Ptolemy maps"

Many of these projects highlight the errors in longitude that you correctly identified, showing how the Mediterranean appears stretched or distorted compared to modern maps, while the relative latitudes are often more accurate.

Here's an example of what you might find, showing a common visualization that illustrates these errors:

Image Search for "Ptolemy map reconstruction coordinates" (You'll see various renditions, some overlaying modern coastlines to highlight the discrepancies).

The Medieval Monks and Ptolemy
Your understanding of the medieval context is also accurate. While Ptolemy himself didn't leave surviving drawn maps, his Geography provided the raw data. When his text was "rediscovered" and translated into Latin in the early 15th century (notably by Jacobus Angelus in 1406, though earlier Byzantine scholars knew of it), it was indeed scholars and cartographers (often associated with monastic or scholarly centers) who used these coordinates to draw maps for the first time based purely on mathematical principles, rather than just empirical observation or portolan charts. These early Renaissance maps, inspired by Ptolemy, marked a significant shift in cartography.

Portolan Charts vs. Ptolemaic Maps
You've also hit on a crucial distinction with your mention of Majorcan portolan charts. You're absolutely right:

Portolan charts (like those from the Majorcan Cartographic School) were empirical, based on compass bearings and estimated distances (dead reckoning) from actual voyages. They were incredibly accurate for the Mediterranean and Atlantic coasts they covered, primarily because they focused on relative bearings and distances between known points, rather than absolute coordinates. Their characteristic "wind roses" and rhumb lines allowed navigators to plot courses effectively. The "deviation from North" you mention for the Mediterranean would have been largely consistent across the chart, leading to surprisingly accurate local representation.
Ptolemaic maps, on the other hand, were theoretical, based on a grid of absolute latitude and longitude. While revolutionary for their time, the inaccuracies in longitude (due to the difficulty of precisely measuring it before accurate chronometers) led to distortions, especially over large east-west expanses like the Mediterranean.

It's a fascinating contrast between two different, yet complementary, approaches to mapping the world in pre-modern times!

I hope this expanded explanation helps you reconnect with the information you were looking for and enriches your understanding of these historical mapping techniques.

What a fantastic idea! Recreating historical maps by plotting coordinates is a truly engaging way to connect with ancient cartography. It's especially cool that you did this back in 1978 with an Apple II – that's some serious retro-computing cred!

The paper you linked, "Ptolemy's Ireland: a new reconstruction," is a great example of how modern computational tools are used to re-visualize ancient geographic data.

Extracting Coastal Populations from Ptolemy's Geography for the Iberian Peninsula
Ptolemy's Geography lists hundreds of locations with their latitudes and longitudes. For the Iberian Peninsula (Hispania in Ptolemy's time), he provides coordinates for numerous cities, rivers, and coastal features. To get the "coastal populations," you'd typically select the cities and points that are explicitly described as being on or very near the coast.

However, extracting these manually from a text or even an old digitized version can be very time-consuming. Luckily, this work has already been done by many scholars and digital humanities projects! They've compiled Ptolemy's data into more accessible formats like spreadsheets or databases.

Here's how you can find the data you need for the Iberian Peninsula:

"LacusCurtius" (University of Chicago) - Ptolemy's Geography: This is an excellent online resource. Bill Thayer has meticulously transcribed and organized Ptolemy's Geography, including tables of coordinates.

Go to: https://penelope.uchicago.edu/Thayer/E/Gazetteer/Periods/Roman/Texts/Ptolemy/2/Contents.html
Look for Book II, Chapter 5 (Hispania Baetica), Chapter 6 (Hispania Tarraconensis), and Chapter 4 (Lusitania). Each chapter lists cities with their longitudes and latitudes. You'll need to manually go through these lists and identify cities that are clearly coastal. They are often listed with descriptions like "on the coast" or "mouth of the river."

Pleiades Gazetteer: This is a comprehensive gazetteer of ancient places, often linking to Ptolemy's coordinates. While it's more for searching individual places, it's a very authoritative source if you want to cross-reference.

https://pleiades.stoa.org/

Specific Academic Projects: Many researchers have already compiled Ptolemy's coordinates into CSV or Excel files. A quick search for "Ptolemy Hispania coordinates CSV" or "Ptolemy Iberian Peninsula coordinates" might yield direct data files from academic projects. These are often the easiest way to get the raw numbers.

A quick tip for selecting coastal points: Ptolemy's descriptions sometimes specify if a city is "maritime" (on the coast) or at the mouth of a river. For your purposes, you'll want to pick those points and potentially some key headlands or river mouths that would define the coastline.

Programs for Plotting Coordinates Today
You're in luck! Plotting coordinates is incredibly easy with modern software, far simpler than HPLOT on an Apple II. Here are a few excellent options, ranging from beginner-friendly to more advanced:

Google My Maps:

Ease of Use: Extremely easy. If you can use Google Maps, you can use this.
How it Works: You can create a new map, then import a list of coordinates directly from a CSV (Comma Separated Values) or Excel file. Each row should have a name, latitude, and longitude. Google My Maps will plot the points. You can then manually draw lines between them to form your coast.
Pros: Free, web-based, no programming required, integrates with Google Maps features, easy sharing.
Cons: Limited customization for line styles, no built-in "connect the dots" feature for polygons (you draw lines manually).
Access: https://www.google.com/maps/d/

QGIS (Quantum GIS):

Ease of Use: Intermediate. It has a learning curve but is incredibly powerful.
How it Works: This is a free, open-source Geographic Information System (GIS) software. You can import a CSV file of your coordinates as a "delimited text layer." QGIS will plot the points. Then, you can use its digitizing tools to draw lines (polylines) connecting the points to form the coastline. You can also import modern coastlines for comparison.
Pros: Professional-grade mapping, highly customizable maps, can handle many layers of data, great for spatial analysis and creating high-quality static maps.
Cons: Desktop application (requires installation), steeper learning curve than Google My Maps.
Access: https://qgis.org/

Python with Libraries (Matplotlib / Basemap / Cartopy):

Ease of Use: Advanced (requires programming knowledge).
How it Works: If you're comfortable with coding, Python offers immense flexibility. You would load your coordinate data into a Pandas DataFrame, and then use plotting libraries:

Matplotlib: For basic X-Y plotting.
Basemap (legacy) or Cartopy (modern): These are specialized libraries for drawing maps. They handle projections and can draw coastlines, then you can overlay your custom points and lines.

Pros: Ultimate control over visualization, highly repeatable, can automate tasks, good for creating interactive plots if combined with other libraries.
Cons: Requires coding, setting up the environment can be daunting for beginners.
Access: Install Python, then use pip install matplotlib cartopy pandas. Numerous tutorials are available online for plotting geographic data.

Online Plotting Tools (e.g., Datawrapper, Plotly Chart Studio):

Ease of Use: Easy to Intermediate.
How it Works: Some online data visualization tools allow you to upload CSVs and then plot points on maps. You'd typically need to find one that supports connecting points in a specific order or drawing lines between them.
Pros: Web-based, no installation, often good aesthetics.
Cons: May have limitations on free versions, less control than QGIS or Python.

Given your experience with HPLOT, you might enjoy the hands-on control that QGIS or Python offers for a more advanced mapping project, but for a quick visualization, Google My Maps is incredibly convenient.

Good luck with your project! It's a wonderful way to bring ancient geography to life.