



## Digital scholarly primitives: how data curation/implementation/aggregation and mapping happen in ArkeoGIS

Like all the other disciplines of the Humanities, archaeological studies are based on a certain number of "primitive scholarly works". The digitalization of information, however, is perhaps more advanced because of the natural interdisciplinarity of the discipline (numerous interactions with geographers, environmentalists...) and because of the pioneering use of inventories and software to process information since before the 1990's.

Already more than 10 years ago, starting from the observation that digital data were available in several local, regional, national and international structures and infrastructures, our small team decided to set up an effective exchange infrastructure. Starting from the idea that the most important primitives for archaeologists are: what? when? by whom? and that the information would be very disparate (in terms of languages, concepts, chronologies, georeferencing...).

Our solution is brutal and simple, but effective: each primitive dataset is encoded in ArkeoGIS format, in the form of constrained spreadsheet based on a bottom-up ontology. The user can then display the primitive scholarly data he is looking for (all over a zone, all objects or analyses of the same type, all sites, all objects...) knowing where the information comes from.

Finally, he can export the search result as a .csv spreadsheet and reuse it in the tool of his choice to continue his work. Ideally, the data produced is then shared with all contributors. ArkeoGIS thus makes it possible to know, with the help of a cartographic interface, who has done research on which theme directly or indirectly, by aggregating bibliography, subjectivity and creating unified metadata.

The screenshot shows the ArkeoGIS web interface. On the left, there is a filter panel titled 'Ajout/Édition de filtres caractéristiques' with various checkboxes for site types and periods. The main area is a map of the Schwarzwald region with numerous blue circular markers representing sites. An inset window shows a spreadsheet with columns for 'SITE\_SOURCE\_ID', 'SITE\_NAME', 'LONGITUDE', 'LATITUDE', 'STARTING\_PERIOD', 'ENDING\_PERIOD', 'CARTIC\_MARK', and 'CARTIC\_LVL'. A blue arrow points from the map to the spreadsheet, and a green circular arrow icon is visible on the right side of the spreadsheet window.

More than 100 datasets describing more than 100,000 sites, objects or analyses are aligned currently available, allowing researchers to quickly dispose of their "scholarly primitives", advanced students and researchers to make their state of art in a few clicks and lay solid foundations for LOD. The tasks of data identification, curation, implementation and aggregation are therefore partly handled by the platform, the user only has to sort the data he has selected, having almost instant access to its scholarly primitives.

You want to know more ? : <https://arkeogis.org/>

