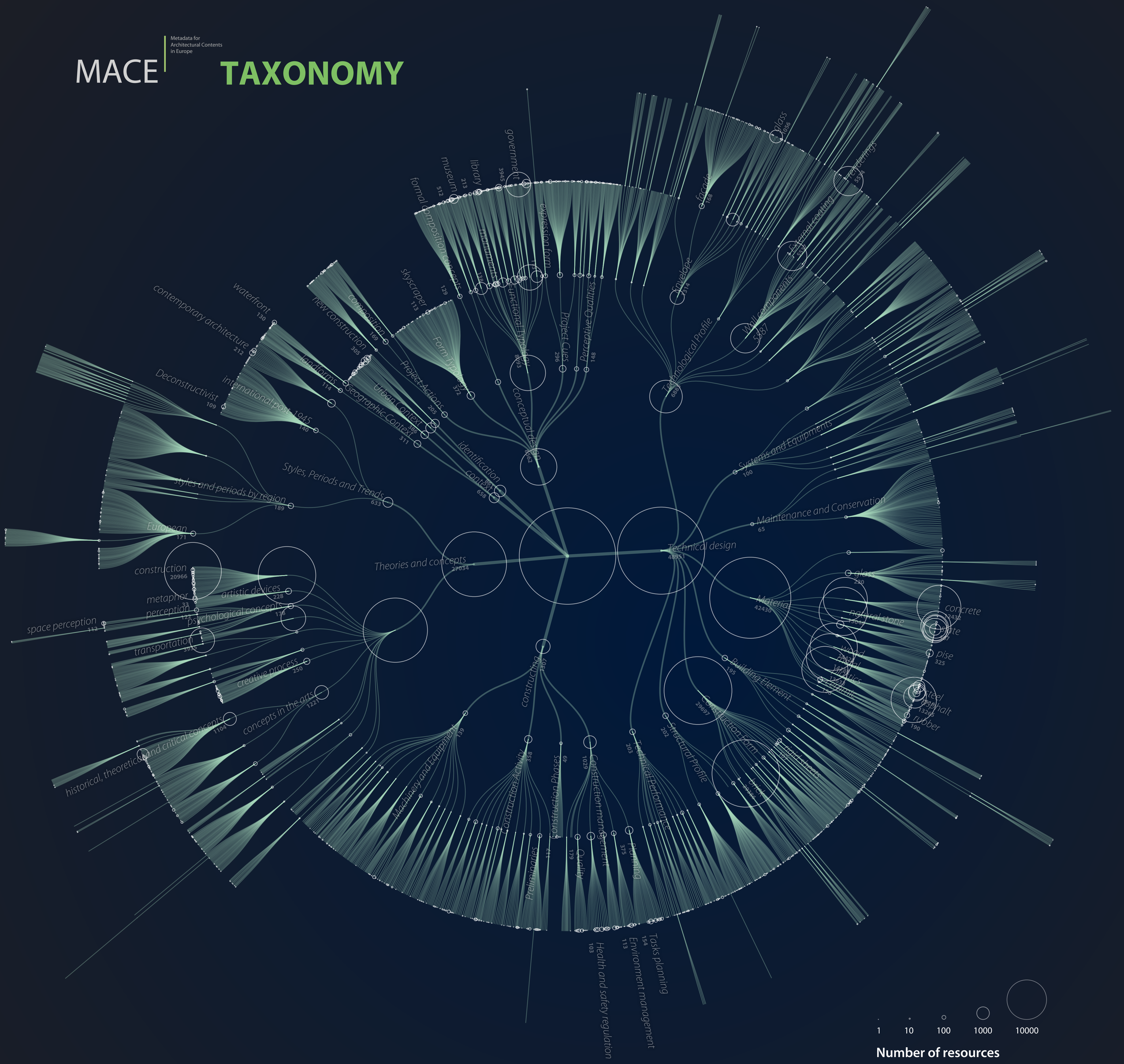
MACE

Metadata for Architectural Contents in Europe

TAXONOMY



This visualization reveals the structure and usage patterns of a large classification taxonomy.

It is developed and used in the MACE project, which aims at providing better access to digital resources for teaching and learning about architecture.

The visualization is a visual representation of the classification schema used for tagging the resources. Currently, it comprises over 2800 terms, many of which have labels in German, English, Spanish, French, and other languages. The vocabulary is organized in large facets like *Technical Design, Conceptual Design, Theories and Concepts*, etc., which all contain multiple levels of sub-categories.

The layout is based on the radial layout mechanism introduced in [1], and provides a birds-eye view of the whole taxonomy tree, with the root placed at the center of the graphic, and each path to the outside representing one "route of specialization". The original layout algorithm has been extended with improved line drawing routines, following the Gestalt principle of continuation. Additionally, circle overlays at centers of tree nodes indicate the number of associated resources (i.e. resources tagged with the respective term or any child term), making it not only a visualization of theoretical vocabulary, but also actual usage.

The visualization's use has been two-fold: On the one hand, static snapshots like these allowed the subject matter experts to review the quality and usage of the taxonomy while constructing it: For instance, looking at the *Theoretical Concepts* section, we can see that one term has been applied much more often than others in the same section. The *Technological Profile* section is much more uneven in depths compared to other sections. Visualizations like these have shown to be very useful in the project's work process, as a basis for hypothesis generation and iterative refinements.

On the other hand, we provide an interactive version of the tree on the MACE portal, which allows to search and browse the resources in an interactive visual refinement process, providing an architecturally meaningful way of structuring over 60'000 resources tagged with at least one of the classification terms.

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[1] Yee, K-P., Fisher, D., Dhamija, R. and Hearst, M. (2001) 'Animated exploration of dynamic graphs with radial layout', IEEE Symposium on Information Visualization, INFOVIS' 01, San Diego, USA, pp.43–50.

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http://mace–project.eu