

Visualization with Data Clustering

Diva Seminar Winter 2006

- Context
- Data clustering methods
- Different visualizations

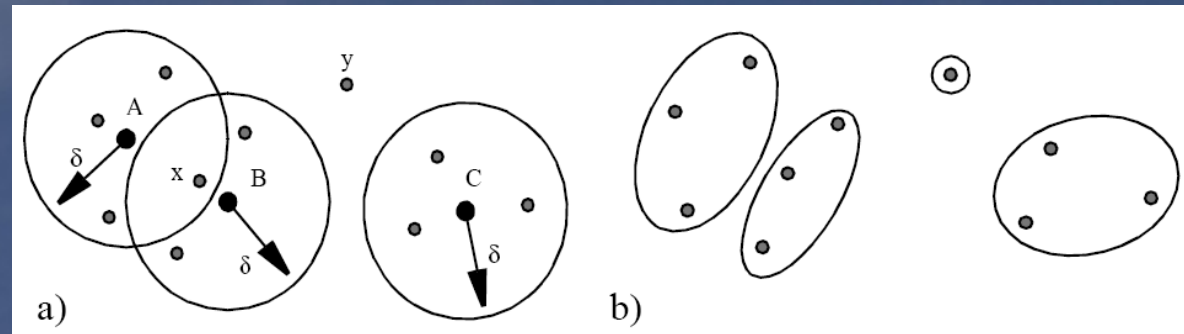
- Large scale of data
- Using interactive visualization for understanding
- Adapting or creation of new visualization
- Solution: using data clustering in the visualization

Data clustering methods

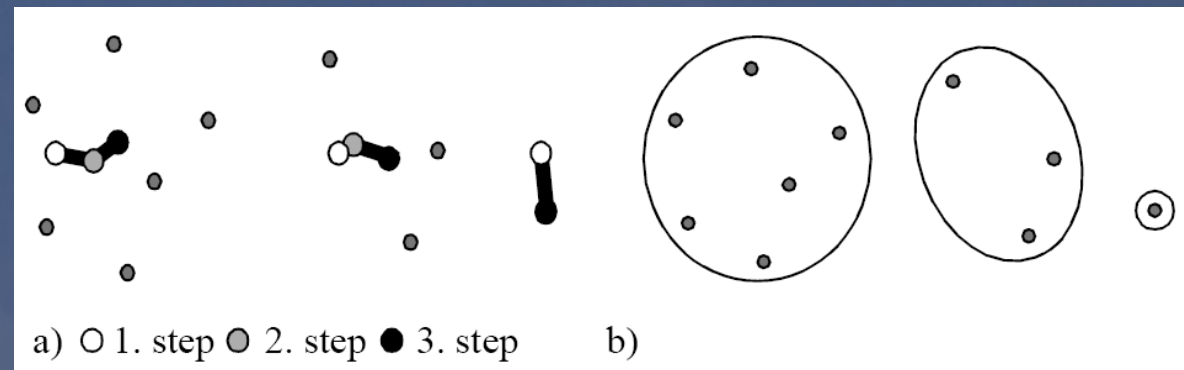
- Partitioning methods
- Hierarchical methods
- Locally-based methods

Partitioning clustering

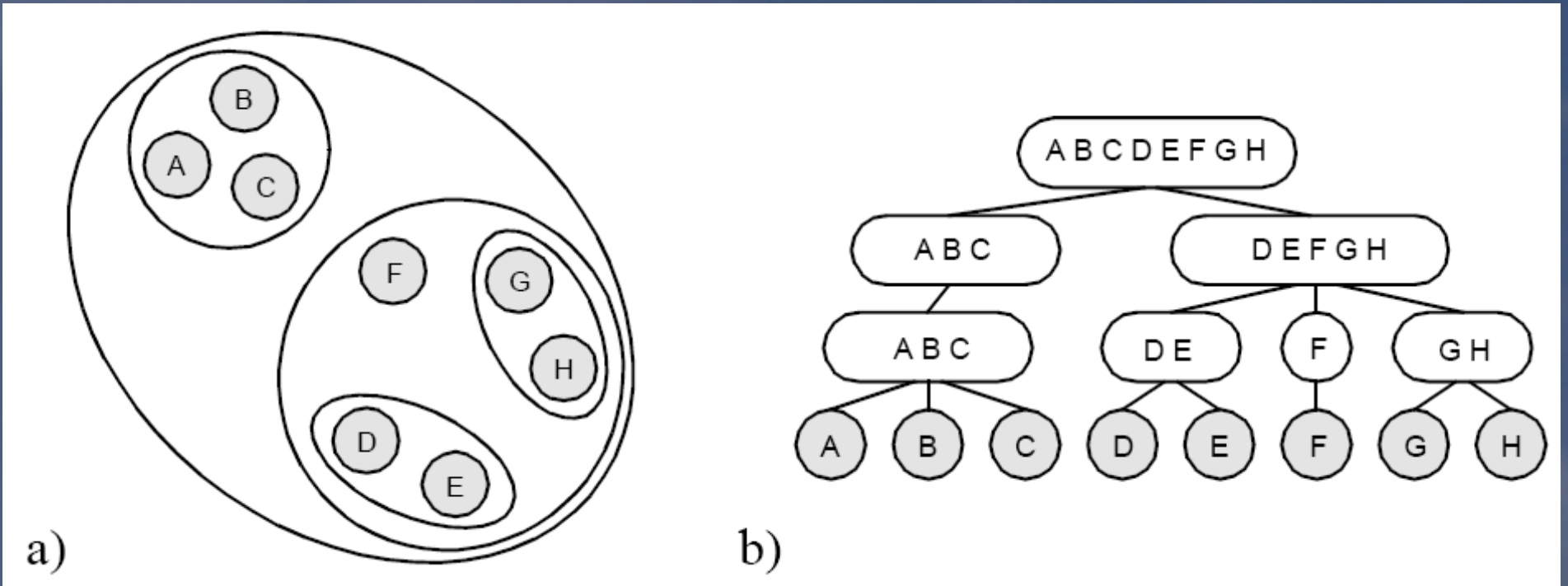
● C-Means



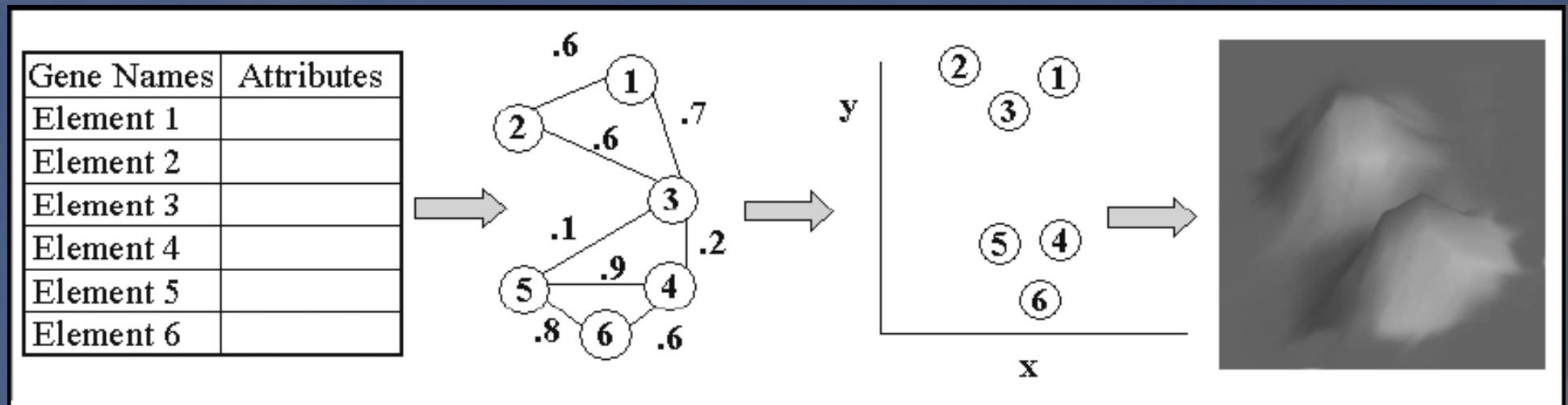
● K-Means



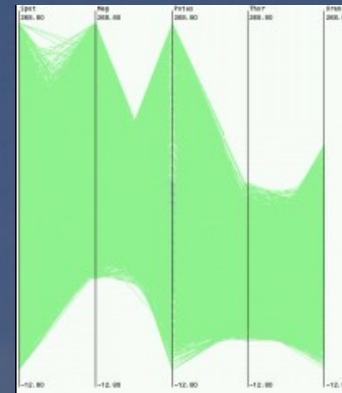
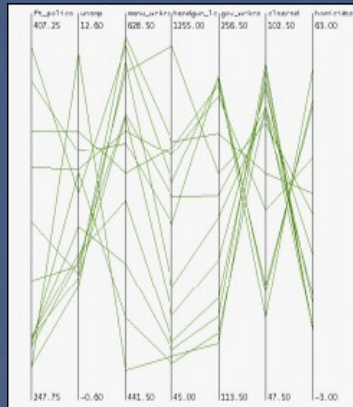
Hierarchical clustering



Locally-based clustering

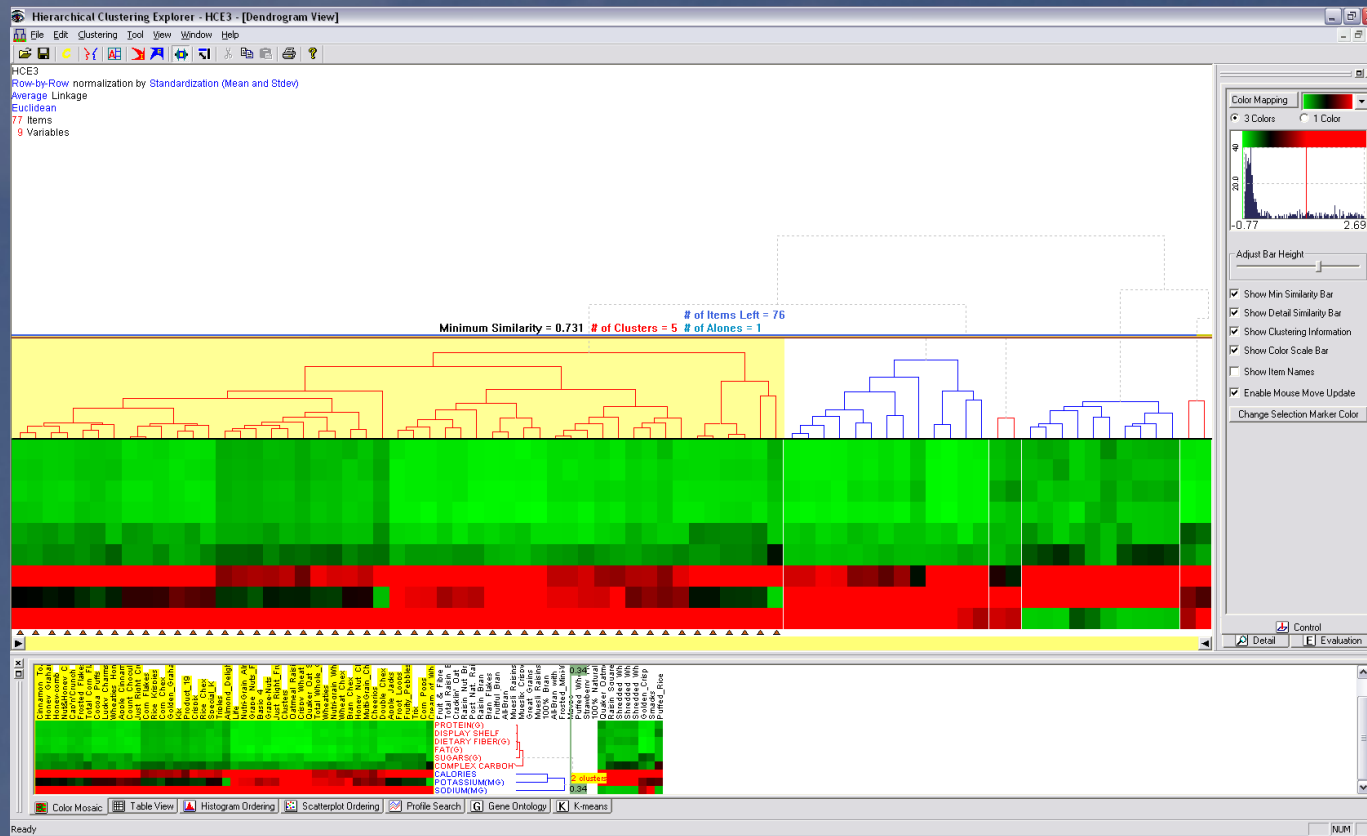


Hierarchical Parallel Coordinates

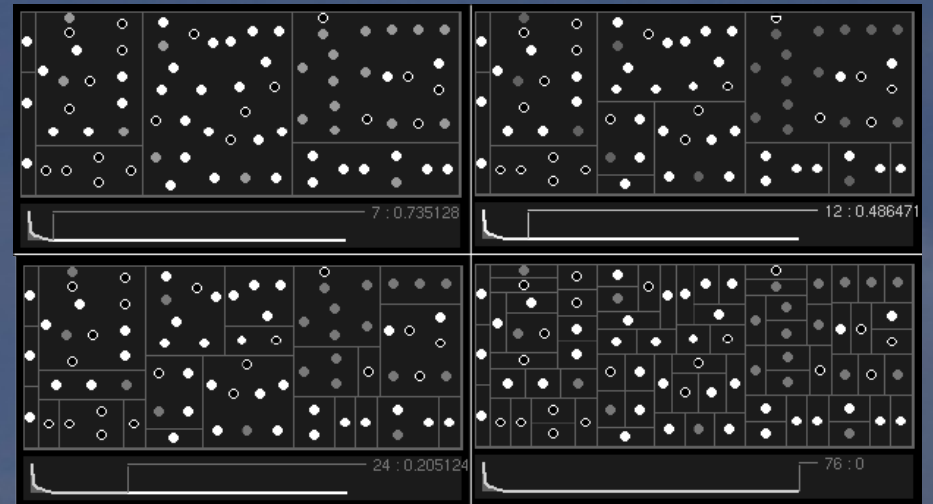
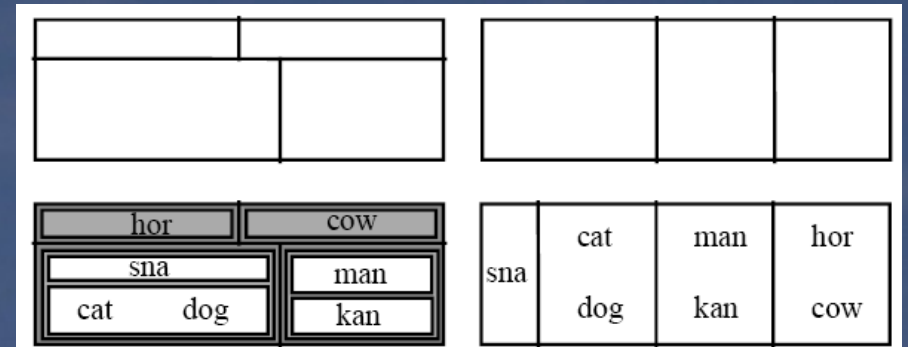
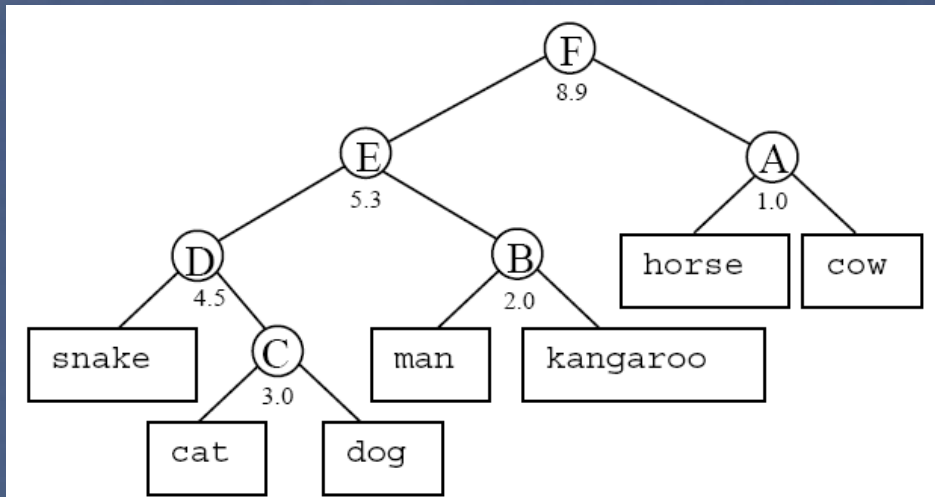


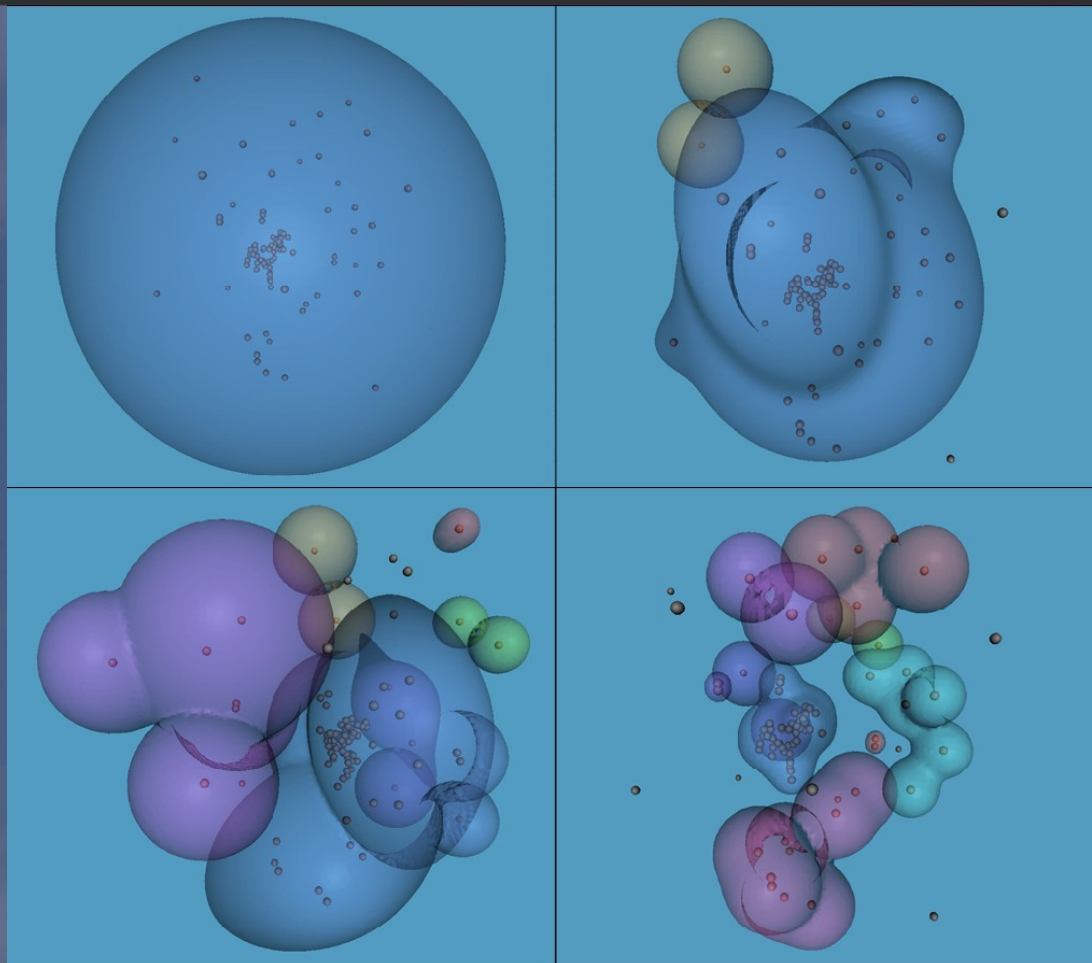
Solution

Dendrogram

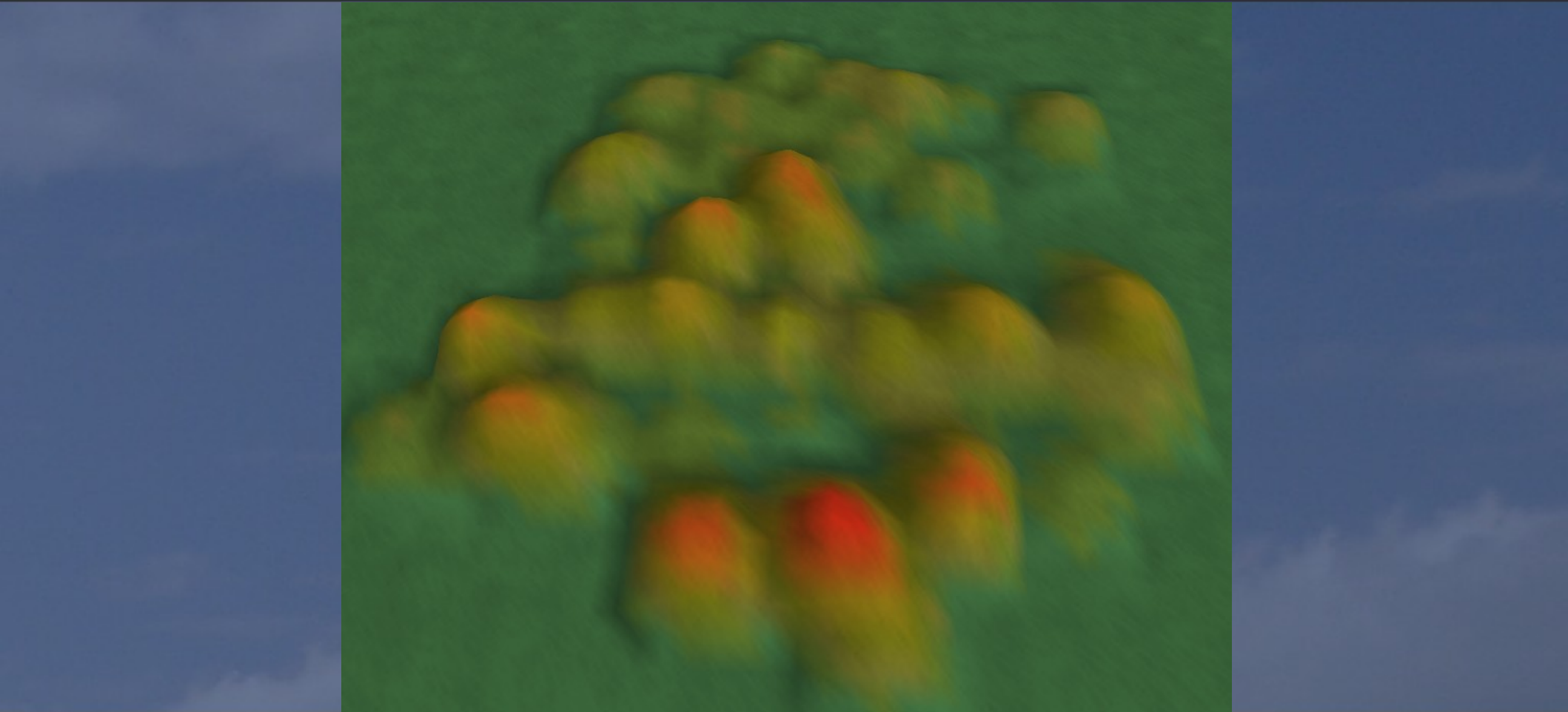


Hierarchical Tree-map

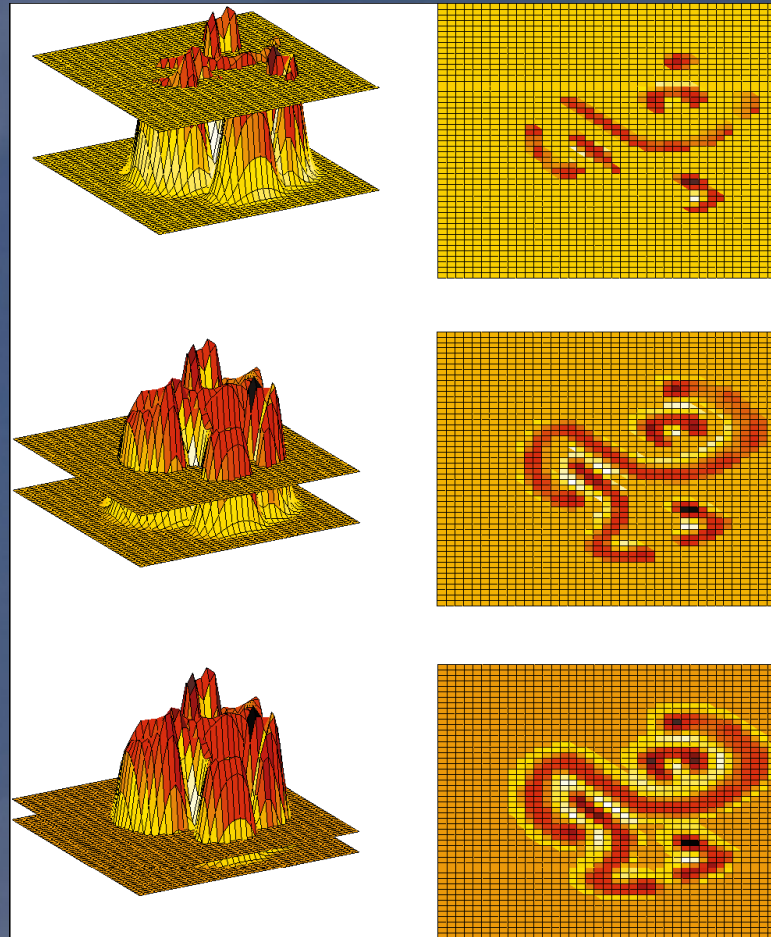




Mountains and hills



Mountains and hills (another)



- Adaptation of existing visualization
- Creation of specific visualization
- The choice of the visualization depends of the type of data