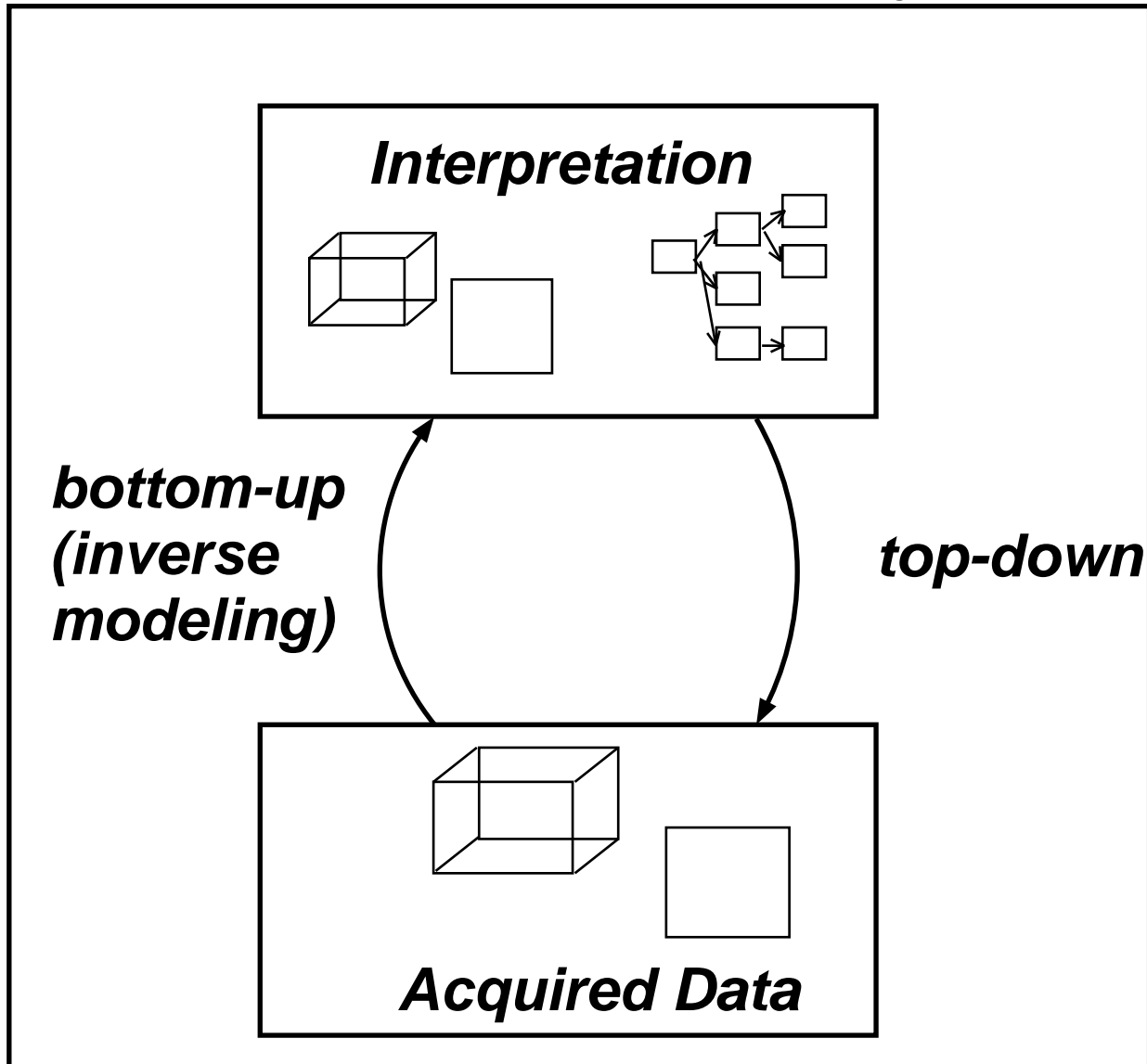

***We Need Interactive Data
Interpretation Rather Than
Interactive Data
Visualization***

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Data Interpretation Cycle



- Merging geometric data with array data
- Data format versus data display
- System architecture

Data Format Versus Data Display

The traditional coupling between data format and data display is too restrictive.

- Variable views of the data
The user needs to specify interactively:
 - - which dimensions are displayed
 - - which display mechanisms are used to display the selected axes
 - - how the data along the undisplayed dimensions is treated
- Multiple views of the data
 - - One or more arrays displayable in one or more windows:
linked cursors in several windows
versus array overlays in one window
 - - Coordinate transformations between arrays, dimensionality reduction
 - - Displaying several arrays in different graphical representations

System Architecture

A customizable framework rather than a fully configured, inflexible system.

- Module hierarchies and automatic network customization
- Mechanisms for incremental data interpretation
 - - Circular data flow
 - - Permanent data storage
- Customizability
 - - Data flow executive
 - - Screen layout
 - - Extensible widget set for parameters