InfoVis A3

Task 1
Overview + Details:
Pros:
1) Easy to use
2) Clear navigation, easy to track where you are with the overview
3) No data distortion.

Cons:
1) The user has to switch focus between multiple windows
2) Space inefficiency with all views and placements (overlapping)

Focus + Context:
Pros:
1) Can be combined with other techniques
2) Reflects the design of the human retina in the eye
3) No need to switch focus to a different view to see where you are
4) Takes advantage of the whole screen to show data

Cons:
1) Data distortion
2) Can be harder to select specific items (moving target problem)

Difference:
O+D uses multiple windows while F+C uses one.
O+D has no data distortion.

Difference between Graphic Fish-eye and Logic Fish-eye:
Graphic fish eye uses mathematical transformations to scale up items at the center, while items further away are squashed. Still preserving the presence of all the data. Logic fish eye uses logic based (DOI) filters to decide which elements to show and which to hide. When focusing on a specific node, the system shows that node's siblings and parents in detail, but collapses or hides distant branches.
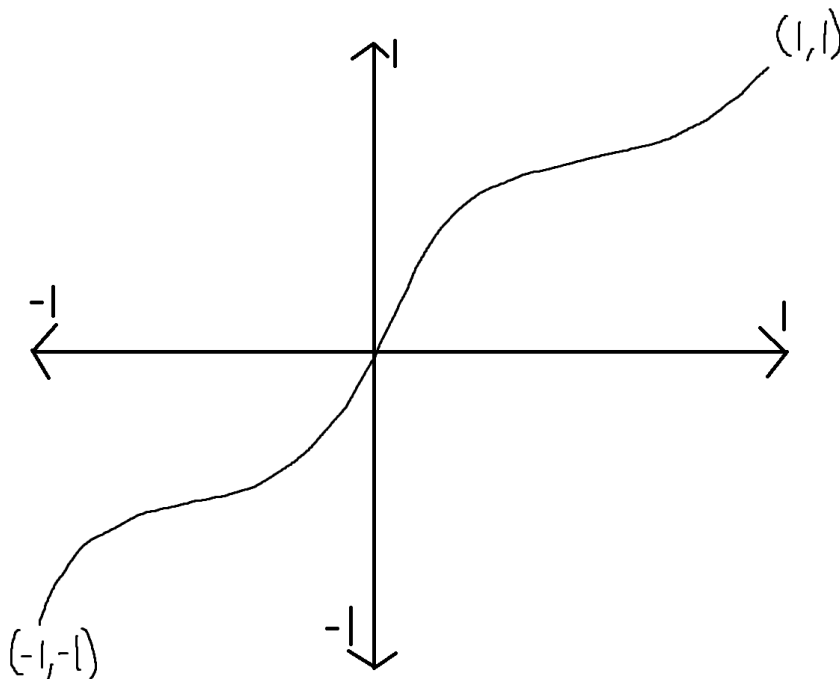
Combined:
Yes the methods can be combined, usually called Compound or Hybrid Fish-eye views.
Logical layer: You can have a football league where the user clicks on a team and all other teams get hidden, except the league title and the players in the team.

Graphical layer: The team logo/name gets bigger and centered while the league title gets smaller and moved to the edge, for context. All the players are shown around or under the team logo/name and are perhaps categorized in player position.

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Polyfocal Displays:

Polyfocal displays allow for multiple focal points simultaneously within a single view. This is useful when a user needs to compare or monitor multiple specific areas that are far apart in a large dataset without losing the overall big picture.

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Magic lenses:

A magic lens in an interactive tool which the user can use as a movable filter or viewport over a visualization. It is a focus+context technique that allows the user to modify the part of the visual representation under the lens without hiding or altering the global view.

One example of a use case for a Magic Lens is a city hotel map. In the overview, all hotels are represented as dots/squares on a map over the city to maintain a clear uncluttered layout. When the user drags the Magic Lens over a specific area, the dots/squares inside the lens expand to reveal dynamic data, such as the number of available rooms and beds.