3DH DESIGN / PLANNING CHARETTES (might take more than one session each) Johanna Drucker, May 2016, Hamburg

Charette 1: The inventory, graphical activators, interpretative dimensions (June 15th all day)

Objective: To create a first working prototype of the connections among the interpretative dimensions, graphical activators, and visualization types.

Outcomes could be: working sketches of activators and dimensions, a sense of how to apply/use these in an intuitive but controlled way; expose the problems and limitations of the approach to the design inside the frame.

- 1. Discuss and agree to the working list of epistemological/interpretative dimensions (agree that this is a working list and can be customized for any project through labeling and/or use of graphical activators; e.g. "salience" or "relevance" might be marked, though they are not in this working group).
- 2. Discuss the graphical activators. Again, this is a working list, but more exhaustive and complete than the open-ended interpretative dimensions. The graphical attributes *should* be able to be developed as a stable set, though their application can be open and customizable. We would front-load the basic set of associations.
- 3. Develop a graphical inventory of the activators in teams/groups, test legibility/associations, and then aggregate.
- 4. Modify the visualization types by using the graphical activators in groups/teams.
- 5. Test legibility of the applications of attributes to visualization types.
- 6. Consider the three-dimensionalization techniques and animations.

Charette 2: Visualization types within cases; also platforms and devices (June 20^{th} and 22^{nd})

Objective: To generate storyboards for important visualization types based on ideas for adding interpretative dimensionality

Outcomes could be:

- a) a number of different rough storyboards of how a particular dataset could be usefully interpreted using one or more visualizations
- b) sketches of visualization interfaces that combine visualizations
 - 1. Remind everyone of the ideas for interpretative dimensionality we have been playing with.
 - 2. Discuss a case where we have a dataset and interpretative problems
 - 3. Divide into teams and ask each team to storyboard the same case an ideal interaction where visualizing the dataset leads to interpretative insight.
 - 4. We might assign each team to story board a different type of visualization (charts, scatter, graph, map, table)
 - 5. Bring the teams together to walk us through their storyboards.
 - 6. Ask each team to sketch an interface with two linked visualizations with which to deal with the same problem. They would take their first visualization and add a second to create an interface sketch.
 - 7. Again, come together and talk about the sketches.
 - 8. Consider argument layers and possibilities of view points within drawing conventions that allow for dimensionalization of interpretation.
 - 9. Address the issue of exposing the data within the cases (ethical principle that

visualization should always provide some access to the underlying data and, if possible, the lifecycle of its production from parameterization to display).

Charette 3: Inside and Outside the Frame (Weds June 8th and Thursday June 9th)

Objective: To step back and consider the relation of the "inside" and "outside" of the frames.

Outcomes might be to begin to storyboard a user experience.

- 1. Revisit the "work humanists do" lists and see how they work with cases.
- 2. Work through cases with a sense of inside/outside links (data sources, communities, values, ethics, documents and evidence, publication lifecycles, work processes)
- 3. Sketch user profiles.
- 4. Play with use case scenarios in a preliminary way.
- 5. Assign responsibility for use cases for future work.
- 6. Think in a conceptual way about "pipelines" of process.
- 7. Consider the use of 3DH across the lifecycle of research projects
- 8. Consider the input/output formats for 3DH work.
- 9. Keep the two-way screen in mind.
- 10. Consider alternative displays and platforms—projection, large screen, small devices, spatialization, game space etc.

Charette 4: Future Planning (June 27th)

Objective: To plan future work on the project.

Outcomes should be:

- a) Practical plan for next steps (work ahead);
- b) Conceptual thinking, high-end possibilities (agent-based, non-linear, relative metrics etc.)

What needs to be done to develop prototypes (storyboards, visuals)?

What testing needs to occur to generate feedback on design?

What work needs to be done to generate some technical specifications?

Input to data from graphics

Variables/values within tables

Change of values over time

Inflected values—point of view on values registered in data

Visualizations at high level of nuance/granularity

Display algorithms with nuance/inflection

What kind of user testing should be designed for future work?

What are the stakeholder communities with whom we should connect and work?

What are the methods of transferring the research in this project to other disciplines and domains (e.g. ecology, political science, resource management etc.)

Charette 5: Wrap-Up (June 29th)

Objectives: Envisioning future work in terms of various "instruments" of activity.

Outcomes might be some specific dates identified ahead; division of tasks into those that can be done at a distance and those that benefit most from face to face.

Instruments for future work:

- 1. Grand workshops (for design concepts, group work, hands-on conversation, intensive face-to-face activity)
- 2. Expert groups (with expertise in some particular area or facet of the project)
- 3. Short-term face-to-face meetings
- 4. Replicating some version of what we have done in this semester

Possible dates for workshops

Winter 2017 (Baltic Sea...) end of January, early February? March spring break?

Possible milestones/deadlines for presentations and/or grant applications October 2016: Taiwan possibilities Fall 2017 Prototypes

Possible other activities:

JD class spring 2017 for some concepts / renderings