Lim & Löwgren... recap
Lim’s gestalt attributes

Merge Directness & Proximity into Accuracy (Ruxandra)
- ...and even Resolution (Sus)

Merge State & Movement (Magus, Ruxandra)
Merge Pace & Speed (Magnus)

Peter... artifact-centric vs user-centric, but...?
- Artifact: Connectivity, Continuity, Directness, Proximity, State, Time-Depth
- Both: Movement, Orderliness, Resolution, Speed,
- User: Pace
New attributes / use qualities

Dependency (Niels)
Direction; linear vs. Hyperlinked (Ruxandra)
Evolution; changing over time (Niels)
Forgiveness (Martin)
Tasking: multitasking vs singletask (Peter L)
Time-freedom: to move in time (Peter L)
Trust (Niels)
What IS an aesthetic interaction quality???

- “here and now” (Andreas)
- How interaction should be experienced (Peter C)
- Property making interaction beautiful, but what is beautiful (Pekka)
- Related to feeling of use (Marcus)
- Properties of user experience, as opposed to artifact properties in use qualities (David & Ruxandra)
- Qualities of the actual interaction (Magnus)
- How the artifact is thought of (Niels)
- Sensory/sensing aspects of interaction (Onur)
Several suggested Immersion, Playability, Seductivity…

Yiwen: The four aesthetic interaction qualities are merged use qualities:

- **Pliability**: pliability, anticipation, playability
- **Fluency**: fluency, usefulness
- **Dramaturgical Structure**: parafunctionality, anticipation, seduction, social
- **Rhythm**: playability, fluency, autonomy
Temporality
“Digital artifacts are every bit as temporal as they are spatial. In order to perceive the whole, or the dynamic gestalt, of a digital artifact we need to experience it as a process, which is to say that we need to try it. The gestalt of a digital artifact emerges in the interaction with the user over time.”

**Temporal**: Of or relating to time as opposed to eternity; of or relating to time as distinguished from space; of or relating to the sequence of time or to a particular time

– Merriam-Webster online

**Temporal**: Temporal measurements, of time, time-related.

– The Oxford Pocket Thesaurus of Current English

**Temporality**: The condition of being bounded in time (of being temporal.)

– Wiktionary
How humans perceive time (Elin!)

Biological Time
- "in life"
- in monthly cycles (not only women)
- 25-hour days

Perceived Time
- Fun = time passes faster (mind measures change)
- Flow; level of creative concentration = change
- I year = 1/5 of the life of a five-year old, but 1/50 of the life of a fifty-year old...
- Just-noticeable-difference; the longer the time, the bigger a difference can be without us noticing
Cultural Notions of Time

– **Westerners**: time is linear and change is constant (or changing at the same rate, e.g. progress)
– **Westerners**: some things are cyclic, e.g. years (but one person’s life is linear)
– **Asians**: time is cyclical. Everything changes; good can turn into bad and vice versa.
Design-by-drawing, the traditional design method, depends almost completely upon accurate modeling of dimensions in space. The time dimension, if we may call it that, is left to take care of itself. [...] To design in time is, more so than when designing objects, to design life itself, the very form of existence, and surely calls for a gentler touch than can be felt in the insensitive forms of out production-systems, legal systems, timetables, schedules, distribution-systems, etc.

Waiting and downtime (Seow)

- *Show how much is left*
- *Consistent response times ”better” than variable ones to some extent, related to anticipation and rhythm*
- *Normally negative, some games are an exception*

Pace, speed, rhythm

- *Interplay between user and interface*

Visibility of time

- *Backwards in chats*
- *Forwards with feedforward*
A design programme aiming to make time visible and valuable:

“It should not be technology that is tiresome and time consuming, but technology that stretches time and slow things down.”

- Lars Hallnäs and Johan Redström in ”Slow Technology Designing for Reflection” (2001, p. 203)
Braid: a time-game

Standard platform game

- The protagonist, Tim, can run, climb, jump, pick up certain things and pull levers

Unlike other games in that the player can always rewind time and start over

- Without this feature the game would be unplayable

Plays in six worlds

- Each has it’s own time-based game mechanic
Braid: a time-game

Time and Forgiveness

- *The player may rewind time to undo actions.*

Time and Mystery

- *Some objects are unaffected by time manipulation, others are not; opens up for synchronization*

Time and Place

- *Links the passage of time to the player character's location on the horizontal plane. Move right = time runs forward*

- [Link to video](http://www.youtube.com/watch?v=QM1LCbGl8ng&NR=1)
Time and Decision:

- *When rewinding time a "shadow" of the player character appears, re-performing the actions rewound; now he and the current version of the character can cooperate.*
- [http://www.youtube.com/watch?v=4nVzderHOMA](http://www.youtube.com/watch?v=4nVzderHOMA)

Hesitance

- *The player has a magic ring that warps time; the closer to the ring, the slower time passes*
- [http://www.youtube.com/watch?v=PsqPMzM2QrA](http://www.youtube.com/watch?v=PsqPMzM2QrA)

Final world/World 1

- *In this world time flows in reverse. Rewinding time returns the flow of time to its normal state.*
## Temporality in other disciplines

### Movies & TV-series
- *Memento*
- *Pulp Fiction*
- *Time Code*
- *24*
- *Big Brother*
- *Primer* ("anybody who claims [to] fully understand what's going on in Primer after seeing it just once is either a savant or a liar.")

### Games
- *World of Warcraft*
- *Animal Crossing*
- *Max Payne ("bullet time")*
- *Tycoon games*

### Books
- *James Joyce: Ulysses*
- *Tolkien: Ring-Trilogy*
- *Biographies*

### Music
- *Frippertronics*
Live Time

- Now. The time we live by, here, now.

Real Time

- Same pace as live time, but not coupled to ”real life”

Unbroken Time

- The sequence of time is unbroken, but can be browsed at any pace.

Sequential Time

- The sequence of events is intact, but some are missing. Any pace
Fragmented Time

- *Events in any order, possibly some missing too. Any pace.*

Juxtaposed Time

- *Some or all events shown in juxtaposition with others. Events in any order, possibly some missing, any pace*
Branched Time

– *Any pace, events in natural order, possibly some missing, some branched.*

– *Saving a file at some point, returning to it later to carry out a different path.*

Altered Time

– *Any pace, events in any order, possibly some missing, some elements reappear several times or in several versions.*

– *Looped Time, some would say.*
Echo & Perspective
  – One-line effects
  – Visibility of time

Temporal Notepad
  – Visualization of time

Temporal Art

Exjobb: Temporal Cartoon
“To consider time as the central design variable means that one starts with the temporal structures that arise from computation and how to manifest these in space, and not from how to make three-dimensional objects dynamic using computational processes.”

Look at the temporal aspects – for once!
Demonstrate?

SIDeR

Exjobb presentations tomorrow

– I have one which I will present to you on Friday

This afternoon: Guessing contest

– Here

– Bring your artifact

– Your test-person demonstrates