Big Dada

Our approach to the future of visualisation focuses on experience as a central concept, questioning what is considered information or data, moving to multimodal, multisensory forms of representation, and redefining the designer as an artist with a critical perspective who works with a range of media and materials.

Information

It ripples through a flock of starlings in a preconscious wave. It's the basic unit of life [18] and of matter [10]. A concurrent VISAP paper [17] describes a project which moved from scientific data to concepts and processes. While we visualise quantitative data and research findings in our practice, we are also interested in cultural practices [13], subjective interpretations [2], and exformation [6]. As well as representing and communicating data, designers have a responsibility to acknowledge the hidden assumptions implicit in the selection, curation, interpretation and representation of such data. [5]

Experience

Thinking fast not slow [7], people encounter information in contexts - personal, social, physical [4] – and our 'innocent consciousness' [1] precedes and predates understanding. Smell the city from the gallery [11]; hear, feel and perform data rendered in the thousand-year-old communications medium of bronze bells, unmediated by screens or scientific instruments. A small dog enchants you from the edge of a champagne glass [2], Un Chien Andalou perplexes you with dream logic, exquisite corpses and cabinets celebrate random associations and data mashups. The future of visualisation is narrative noise [14] frozen in the architecture of chance [9], and meaning emerges in dialogue [8] and subjective experience [3]. Maybe interactive, maybe fictional, always immersive, spatialised, sonified, materialised; people sense the data.

Design

Yet experience has a material basis, in subjective neural patterns and biochemical reactions. Man against entropy, design is a reverse particle simulation striving to bring order to chaos. Design for us is a verb not a noun – a practical, speculative process in which ideas become forms which are at once solid yet fictional; they may find academic or commercial use but should regardless have the power to harvest attention, alter behaviour and change the future [16].



The Exquisite Cabinet by Caroline Claisse



Change Ringing by RCA student Peter Shenai



Colony by RCA students Gabriele Dini & David Hedberg



Materials Story by RCA student Xinglin Sun



Internet access in 6 countries by RCA students



Canterbury smells by RCA student Kate McLean

Big Dada

From visualisation to experience

And life itself relies on both information and material. Analogue media beats digital for archiving – by hundreds of years. Life stories can be cast in wood and brick and marble [15], and the black mirror of our dead devices gets covered over by data-driven vines. Designers like gardeners must weed out outliers and tend walled gardens of timebased experiences through orchestration, choreography and staging, while smart materials and biomaterials [12] hold promise for tactile, even digestible, data experiences.

Acknowledgements

Thanks to our students Jae Kyung Kim, Kate McLean, Veronical Ranner, Peter Shenai, Alberto Ruiz Soler, Xinglin Sun for the great work & inspiration.

References

1. Bachelard, G. (1994) *The Poetics of Space*. New York: Beacon Press.

2. Claisse, C. (2014) The Exquisite Cabinet: An experimental installation to encourage creative thinking and sharing stories. Computers and the History of Art, 18 Oct 2014, London.

3. Dewey, J. (1934) *Art as Experience*. New York: Putnam.

4. Falk, J. and Dierking, L. (2008) How visitors learn through mediaand interaction. In Tallon, L. and Walker, K. (Eds.) (2008) *Digital Technologies and the Museum Experience*. Walnut Creek, CA: Alta Mira Press.

5. Hall, P. (2008) Critical visualization. In Antonelli, P. (Ed.) *Design and the Elastic Mind*, 122-131. New York: Museum of Modern Art.

6. Hara, K. (2007) *Designing Design*. Lars Muller Publications.

7. Kahnemann, D. (2011) *Thinking, Fast and Slow.* London: Penguin.

8. Kaptelinin, V. and Nardi, B. (2006) *Acting with Technology: Activity Theory and Interaction Design.* Cambridge, US: MIT Press.

9. Kim, J.K. (2014) Confabulated architecture. *NODEM*, 1-3 Dec 2014, Warsaw.

10. Lloyd, S. (2010) <u>The computational universe</u>. In Davies, P. and Gregersen, N. (Eds.) *Information and the nature of reality: From physics to metaphysics*. Cambridge University Press.

11. McLean, K. (2014) Smellmap: Amsterdam: Combining olfactory art & smell visualisation in search of place. *IEEE VISAP*, 12 Nov 2014, Paris.

12. Ranner, V. (2013) UISilk: Towards interfacing the body. *Proceedings of the second international workshop on Smart material interfaces: another step to a material future*, 9-13 Dec 2013, Sydney.

13. Rosner, D., Roccetti, M. and Marfia, D. (2014) <u>The digitization of cultural practices</u>. *Communications of the ACM* 57(6): 82-87.

14. Ruiz Soler, A. (2014) *Sound Entities.* MA Dissertation, Royal College of Art.

15. Sun, X. (2014) Materials story of Sir John Soane's life. *NODEM*, 1-3 Dec 2014, Warsaw.

16. Van de Velde, W. (2003) The World as Computer. *Proceedings of the Smart Objects Conference*, 15-17 May 2003, Grenoble.

17. Walker, K. and von Ompteda (2014) <u>PhysicSpace: From quantum to human scale</u>. *IEEE VISAP*, 12 Nov 2014, Paris.

18. Walker, S. and Davies, P. (2013) <u>The</u> algorithmic origins of life. *J. R. Soc. Interface* 10(79): 20120869