

BEHAVIOUR: EXAMINING THE PROTO-SYSTEMIC READING LIST 2011/12

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This reading list has been given to the library by the course tutor. Please note that the library holds as many items as possible from this list, however if any items are not held in the library's collection, these may be requested via Inter-library loan at the issue desk.

Some items may be shared with other programmes or located in other parts of the library. For location details please consult the online library catalogue.

Term 1 Intro

Essential Readings:

Thomas Kuhn, 'Scientific revolutions', in *The Philosophy of Science*, Richard Boyd, Philip Gasper, and J.D. Trout (eds.) (Cambridge, Mass.: 1991), pp. 139-157.

Herbert A. Simon, 'The science of design: creating the artificial', in *The Sciences of the Artificial*, 3rd ed., (Cambridge: MIT Press), pp. 111–138

Kevin Kelly, 'Hive Mind', *Out of Control: The new biology of machines* (New York: 1995), pp. 7-36

Session 2: Architectural Machines

Essential Readings:

Nicholas Negroponte, 'Soft Architecture Machines', MIT Press 1975

John Frazer, 'Introduction: A natural model for architecture' and 'Nature of the evolutionary model', *An evolutionary architecture* (London: AA press, 1995), pp. 1-21, 65-83

Branko Kolarevic, 'Towards the Performative in Architecture', *Performative Architecture Beyond Instrumentality*, (Spon Press, 2005), pp.203-214

Recommended Readings:

Kevin Kelly, 'Hive Mind', *Out of Control: The new biology of machines* (New York: 1995), pp. 7-36

Lawrence Lessig, 'Free', *The Future of Ideas: The Fate of the Commons in a Connected World* (New York: Random House, 2001), pp. 3-25

Ali Malkawi, 'Performance Simulation: Research and Tools', *Performative Architecture Beyond Instrumentality*, (Spoon Press, 2005), pp.85-96

Michael Speaks, 'Design Intelligence', in *Latent Utopias: Experiments within Contemporary Architecture* (Graz, 2002), pp.73-76.

Session 3: Gordon Pask: Maverick Machines

Essential Readings:

Gordon Pask, 'A Comment, a case history, a plan', in Jasia Reichardt, *Cybernetics, Art and Ideas*, Studio Vista (London), 1971, pp 76–99 **[PRINT OUT ON SHELF]**

Haque, Usman, 'The architectural relevance of Gordon Pask', in *4d Social - Interactive Design Environments*, Wiley & Sons, 2007

Andrew Pickering, 'The Cybernetic Brain: Sketches in Another Future', *The University of Chicago Press*, 2010, pp 309-371

Recommended Readings:

Cedric Price, "Gordon Pask, *Systems Research*, 10, 1993 pp. 165-66. **[Photocopy ON SHELF]**

P. Cariani, "To Evolve an Ear: Epistemological Implications of Gordon Pask's Electrochemical Devices", *Systems Research*, 10(3), pp.19-33, 1993. **[Photocopy ON SHELF]**

Frazer J.H., 'The Cybernetics of Architecture: A Tribute to the Contribution of Gordon Pask', *Kybernetes*, Vol. 20, No. 5/6 2001, pp 641–651 **[Photocopy ON SHELF]**

Session 4: Cedric Price Fun Palace

Essential Readings:

Cedric Price, Cedric Price: Works II, Architectural Association, 1984 republished as Cedric Price: The Square Book, Wiley-Academy, London 2003

Stanley Mathews, The Fun Palace as Virtual Architecture: Cedric Price and the Practices of Indeterminacy, *Journal of Architectural Education* (Feb. 2006, vol. 59, issue 3, pp. 39-48) **[PHOTOCOPY ON SHELF]**

Recommended Readings:

Frazer J.H., 'The continuing relevance of the Generator', in Cedric Price Opera (ed. S. Hardingham), Wiley-Academy, June 2003, pp 046–048.

Eleanor Bron, Samantha Hardingham, eds., Annotations: v. 7: CP Retriever, Institute of International Visual Arts (INIVA), London 2005 **[in REF-LO]**

Session 5: John Frazer: Evolutionary Architectures

Essential Readings:

Frazer J.H., An Evolutionary Architecture, Architectural Association, London, 1995

Frazer J.H., 'Computing without Computers' (ed. C.Moller), Opening the Envelope - Intelligent Urban Tools, Exploring Urban Strategies for the 21st Century, Groningen Workshop event, May 1995, pp 14–17 & 27. **[Photocopy ON SHELF]**

Frazer J.H., 'The Architectural Relevance of Cybernetics', *Systems Research*, Vol 10, No. 3, 1993, pp. 43–47. **[Photocopy ON SHELF]**

Frazer J.H., 'A Natural Model for Architecture/The Nature of the Evolutionary Model', chapter in *Cyber Reader* (ed. Neil Spiller), Phaidon 2002, pp. 246–255.

Recommended Readings:

Frazer J.H., 'Action and Observation: The Groningen Experiment', Problems of Action and Observation Conference, Amsterdam, Systemica, Vol 12, 1997, pp135–142.

Frazer J.H., 'Creative Design and the Generative Evolutionary Paradigm' (eds. P.J. Bentley and D.W Corne), Creative Evolutionary Systems, Morgan Kaufmann Publishers, UK, pp 253–274.

Session 6: Pattern Formation in Nature: Form and Life

Essential Readings:

D'Arcy Wentworth Thompson, 'On magnitude' in On Growth and Form: The Complete Revised Edition (New York: 1992), pp. 22-77.

Philip Ball, 'Self-made tapestry: Pattern Formation in Nature', Oxford University Press 1999, Patterns pp.1-15, Bubbles pp.17-49

Recommended Readings:

Kevin Kelly, 'Hive Mind', Out of Control: The new biology of machines (New York: 1995), pp. 7-36

Lawrence Lessig, 'Free', The Future of Ideas: The Fate of the Commons in a Connected World' (New York: Random House, 2001), pp. 3-25118 MArch (Architecture & Urbanism) 2009 – 2010

Ali Malkawi, 'Performance Simulation: Research and Tools', Performative Architecture Beyond Instrumentality, (Spon Press, 2005), pp.85-96

Michael Speaks, 'Design Intelligence', in Latent Utopias: Experiments within Contemporary Architecture (Graz, 2002), pp.73-76.

Session 7: Le Ricolais vs. Otto: Indestructible Ideas

Essential Readings:

Jesse Reiser, 'The New Fineness', Assemblage, No. 41 (Apr., 2000), p. 65
[Available online VIA JSTOR and JOURNALS ROOM]

Peter McCleary, 'Robert Le Ricolais' Search for the "Indestructible Idea", Lotus 99, pp.102-129 [**Photocopy ON SHELF**]

'The Work of Frei Otto and his Team 1955-1976', IL 17, 1978

Frei Otto, Finding Form: Towards an Architecture of the Minimal, Edition Axel Menges, 1996

Recommended Readings

Sanford Kwinter, 'La Citta Nuova: Modernity and Continuity', in Zone 1 / 2 (New York, 1986), pp. 88-89.

Session 8: Fuller vs. Dieste

Essential Readings

Buckminster Fuller, 'An Autobiographical Monologue/Scenario', St. Martins Press, New York, 1980

Eladio Dieste, 'Writings' in Eladio Dieste 1943-1996, Junta de Andalucia, 1997

Timothy M. Rohan, 'From Microcosm to Macrocosm: The Surface of Fuller and Sadao's US Pavillion at the Montreal Expo '67, AD **Surface Consciousness** (John Wiley & Sons: 2003) pp.50-56

Recommended Reading

Cecil Balmond, 'Fractile', in Informal, Cecil Balmond and Januzzi Smith, Christian Breising (ed.), (Munich, 2002), pp. 243-64
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ADDITIONAL PROGRAMME BOOKS

Steadman, Phillip, *The Evolution of Designs: Biological Analogy in Architecture and the Applied Arts*, Routledge [Revised Edition, July 2008]

Johnston, John, *Allure of Machinic Life: Cybernetics, Artificial Life, and the New AI*, The MIT Press, 2008

Garcia, Mark [Ed.], 'AD: Architextiles', November 2006, ISBN: 978-0-470-02634-2

Garcia, Mark [Ed.], 'AD: Patterns of Architecture', *Architectural design*, v. 79, No. 6 (November/December 2009).

Pickering, Andrew [Ed.] & Guzik, Keith [Ed.], *The Mangle in Practice: Science, Society, and Becoming (Science & Cultural Theory)*, Duke University Press, 2009

Pickering, Andrew, *The Cybernetic Brain: Sketches of Another Future*, Chicago University Press, 2010

Isozaki, Arata, *Isozaki Arata: Unbuilt*, Toto, 2001

Kelly, Kevin, *What Technology Wants*, Viking Adult, 2010

Grand, Steve, *Growing up with Lucy: how to build an android in twenty easy steps*, Phoenix, 2004

Nerding, Winfried [Ed.], *Frei Otto, complete works : lightweight construction, natural design*, Birkhauser, 2005

MATURANA, Humberto R., *Autopoiesis and cognition : the realization of the living*, D. Reidel Pub. Co., 1980