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Mapping the Environmental Footprint of the Central Plains Water Irrigation Scheme

A thesis submitted in partial fulfilment of the Masters of Design

Mapping the Environmental Footprint of the Central Plains Water Irrigation Scheme

at the Institute of Communication Design
Massey University, Wellington, NZ.

Dean Ivamy

2009



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Acknowledgements

This thesis is greatly indebted to the following people who individually have assisted throughout this year of study. Firstly, my partner Katie Wood for all her time, love and attention. My parents David and Jill, for always providing an interested listening ear, the drive, motivation, and financial support to get me through. Academic support and advice from Donald Preston, Jacquie Naismith, Patricia Thomas, Tulia Moss, Annette O'Sullivan, and Kate Gilliam. For the assistance of data collection and statistical information, Anna Thorburn (MAF), Christine Dean (Statistics New Zealand), Kevin Hackwell (Forest & Bird), all the Councils, Government agencies, and the environmental and dairy industry groups who so openly provided information and knowledge. Steffen Kreft, Tania Marriott, and Rachael Linton (my fellow masters students) for sharing in this year of discovery. Technical support and problem solving from John Clemens, Stuart Foster, Julian Allom, and Nicola and Simon George.

Thank you all.

A final decision on the proposed Central Plains Water (CPW) scheme needs to be left to the consent-granting authorities, according to Christchurch City Mayor Bob Parker. The basis for this position is that the issues raised by the proposed irrigation scheme are simply too complex for members of the public to grasp. (The Press, September 10, 2007).

Abstract

In the statement Mayor Parker is referring to a complexity of issues that involves a plethora of hard-scientific and statistical information. The diversity of opinions regarding the scheme's benefits and potential negative implications also create misunderstanding for the general public. This prompts the hypothesis of this design thesis, which suggests that statistical data when visually mapped and in the context of its physical environment can provide significant cognitive and ecological awareness for the viewer to understand the economic and environmental implications of the proposed irrigation scheme.

Both the areas of cartographic mapping and the dairy industry contain controlled vocabularies, which present opportunity for graphic modeling and explanation through visible phenomena. The Canterbury Plains has a well-established historical and agricultural narrative. However, due to the recent dramatic and substantial transition of the region's dairy industry between the periods 1995 – 2008, subsequent demand for freshwater now represents the real prospect of uncharted future environmental instability.

The development of a visual language system capable of the interpretation and construction of the irrigation scheme's benefits and potential negative implications, provide this thesis through graphic modeling the possibility to compare the proposed CPW scheme's issues. While some industry groups consider public participation as arbitrary and unnecessary, recent surveys indicate water quality and fertiliser management as the most significant areas for environmental concern. The debate should not exclude the public, but rather include communication systems capable of reaching all communities.

		Contents	Page	
1.1	Introduction	1.1.1 Introduction	6	
		1.1.2 Discussion of Context	7	
		1.1.3 Central Proposition	8	
2.0 Research and Theory.	2.1	Environment	2.1.1 The Impact of Irrigation on the Canterbury Plains	10
			2.1.2 New Zealand's Dairy Farming Landscape	12
			2.1.3 Self-Regulation and Clean Streams	13
			2.1.4 The Battle of Rural-Urban	14
	2.2	Cartography	2.2.1 Political Power Structure	17
			2.2.2 In Search of Scientific Truth	18
			2.2.3 Deconstructing Rhetorical Mapping Devices	19
			2.2.4 Mapmaker as Creator rather than Reflector for Counter-culture Agendas	21
			2.2.5 Dynamic Mapping of Information, Environmental Causation and Place	22
	2.3	Information Design	2.3.1 The role of Context in Cognition	25
			2.3.2 No Symbol Explains itself more than ...	27
			2.3.3 Environmental Causation and Data Presentation.	28
3.0 Methods and Processes.	3.1	Statistical Data Collection, Selection, and Presentation	3.1.1 Historical Analysis and the Chronological Display of Keywords	31
			3.1.2 Settlement and Destruction of the Native Forests	31
			3.1.3 Industry Transition through Statistical Data Collection	32
			3.1.4 The Diagrammatic Display of the Cow	32
	3.2	Cartographic Visual Presentation and Landscape Design	3.2.1 Contextual Background and Isometric Perspective	32
			3.2.2 Navigational Interaction and the Framing of the Canterbury Plains	34
			3.2.3 Scientific Evidence and The Valuative Judgment	34
	3.3	Information Display and Visual Argument	3.3.1 Icon Design and the Canterbury Dairy Farm Model	36
			3.3.2 Icon Modifiers and Extensions to the Visual Narrative	38
			3.3.3 Map Comparisons and the Visible Transition of the Dairy Industry Over Time	39
	4.0	Conclusion	4.1.1 Conclusion	40
			4.1.2 Appendix	42
5.1.1 Bibliography			43	

Images

- 1: Canterbury plains, Allen J Kynaston.
- 2: Central Plains Water irrigation scheme, <http://www.selwyn.govt.nz/cpw/cpw-map.jpg>.
- 3: Livestock fertiliser diagram (2008).
- 4: Canterbury plains from space, Phillips, R. (2003). *New Zealand from space. 2*. Auckland, NZ: Penguin Books.
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- 11: Mike Zender, *Interactive information design – Alzheimer's display*, 2007.
- 12: Helen Mayor and Newton Harrison, *And the Waters Will Rise Gracefully, (From the Book of the Lagoons)*, 1981, oil, graphic, photography, 51 x 122cm.
- 13: Canterbury's agricultural history (2008)
- 14: Dairy cow cyclic graph (concept) (2008)
- 15: Albrecht Altdorfer, *The Battle of Issus*, 1528-29
- 16: Canterbury plains from space, Phillips, R. (2003). *New Zealand from space. 2*. Auckland, NZ: Penguin Books.
- 17: *Reed New Zealand World Atlas* (2004), Auckland, NZ: Reed: Terralink International, [3rd] ed
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- 20: Rakaia River (section) (2008)
- 21: Lake Ellesmere with dairy pasture (section) (2008)
- 22: Christchurch (Western Suburbs) (2008)
- 23: Richard Misrach, *Atomic Bomb Loading Pit #2*, 1989
- 24: Icon map of Canterbury agricultural history (section) (2008)
- 25: Icon map of Canterbury native forest fires (2008)
- 26: Dairy cow cyclic graph #1 (2008)
- 27: Dairy cow cyclic graph #2 (2008)
- 28: Native forest fire (Alford Forest) (2008)

Images

- 29: Fertiliser and runoff (Rakaia River) (2008)
- 30: Dairy cow icons (2008)
- 31: Lake Ellesmere and Selwyn District (2008)
- 32: Selwyn District with dairy pasture and cows (2008)