



Figure 1: Billy Apple, Navigation Map: Severe Tropical Storm 9301 Irma, lambda print (image courtesy of the artist; cartography by Sam Davenport).

## Branding Artists and Scientists

in which Billy Apple's *Severe Tropical Storm 9301 Irma* 2006, installed at te tuhi/the mark, Manukau City, is discussed.

*So Adam gave names to all cattle, to the birds of the air, and to every beast of the field.*  
(Genesis 20:2)

Lesser black-backed gulls cannot interbreed with herring gulls in Britain. However, they are able to mate with their neighbouring continental black-backed gulls and these gulls with their neighbours and so on and so forth. This interbreeding continues to connect populations of gulls around the North Pole via Siberia to North America and back again to Britain. According to taxonomic rules these birds should then share the same name and species allocation. However, this reasoning collapses when one notices the end of this ring of interbreeding black-backed gulls is in fact the herring gull. This herring gull while sharing the same geography cannot interbreed with the original black-backed gull. If the individual gull populations around the North Pole are looked at closely, it would be observed that these black-backed gulls appear less and less like the original black-backed gull and become more and more like a herring gull the closer the gull population gets to Britain from the west.

The concept of *species* attempts not only to categorise (essentially for our convenience) but also to describe function (genetic identity). Evolutionary biologist, ornithologist, and science historian, Ernst Mayr defined *species* as “groups of interbreeding natural populations that are reproductively isolated from other such groups.”<sup>1</sup> When two organisms breed within a species, their combined genetic material passes to their offspring. As a result genes are constantly shuffled around individuals belonging to the same species. It is this shared gene pool that gives the species its specific identity. By contrast, and by definition, genes are not transferred to other species hence we observe inter-species morphological differences. However, this concept can only approximately describe the complexity that is hidden within and between populations of organisms. The discovery of *ring species* such as the Larus gulls described above, (the Californian *Ensatina* salamanders or the Himalayan Greenish Warblers) challenges the reductionist notion of species. The allocation of species designations

exemplifies a kind of pragmatic (rather than positivist) reductionism that is common in biology and other sciences.

Historically the study of complex biological systems has (at least initially) necessitated the need to apply reductionist methods in an attempt to incrementally approximate an understanding of the whole. The reductionist (determinist, materialist) approaches that science (and its method) uses to gather knowledge, attracts criticism from those who reject disembodied views of the world and the positivist claim that authentic knowledge can only be derived through scientific method, i.e. knowledge that is testable. Modernism, which has been seen to embrace rather than question science, has been painted with the same brush. Both science and modernism are seen to be bourgeois, Eurocentric, and worse still – optimistic. However, reductionism is not unique to science. Indeed the methods of science are not unique to scientists. Otherwise all, but scientists, would repetitively dine at restaurants that served disagreeable food. Scientific method is not even particularly unique to humans: the common fruit fly, *Drosophila melanogaster* learns, by experimentation, to find food and avoid danger<sup>2</sup> as do many other species.

In March 1993, Apple was a passenger aboard the Chiricana, a refrigerated cargo vessel transporting a cargo of high quality squash from New Zealand to Japan. The Chiricana made a detour from its predetermined course in an attempt to avoid an encounter with 9301 Irma, the rapidly escalating storm that was deemed to be approaching typhoon proportions. [Billy Apple's] work documents and encodes into art the sequence of events that took place a day out of Napier and finished a day before arrival into Osaka. Data generated by ship and storm has been collected from the ship's log book and satellite forecasting by Apple, then schematised into the visual, aural and moving image components of this installation.<sup>3</sup>

Naming and measuring is commonplace in all fields and peripheral fields of science, including meteorology, cartography, and navigation. These rituals are also performed in museums, galleries, encyclopaedias, and cabinets. In music, notes are assigned to certain tones. Time is also labelled, numbered and ordered. Of course the world is not discontinuously distributed. Forcing the world into qualitative classes may be more an art than a science but it seems to be a habit of both *disciplines*. Intermediates are avoided for aesthetic, not just pragmatic reasons. An ocean might have little useful information or visual interest until it is superimposed with lines and numbers dividing its otherwise fluid surface. Rules are made, lines drawn, and labels are assigned. A certain pleasure can be experienced in the act of naming and measuring. Ordering matter in space and time helps *make sense* of an otherwise chaotic and unnerving universe. By cataloguing experience, it can be *understood* and from that, it is commonly agreed among us as to what that experience was.

Artists, although less restricted than scientists, also source and appropriate before ordering, arranging and installing their material. In Billy Apple's work, clean categorical distinctions are generally hard to maintain. In particular, art, design and marketing are no longer discrete, generating a degree of discomfort for those who hold dear one or other of these distinctions. Art, science and technology are often intermingled. When humans adapt to, and

even manufacture their own environments, distinctions between organism and environment become less well defined. In the act of branding himself *Billy Apple*, the separation between artist and art is lost.

In *Severe Tropical Storm 9301 Irma*, Billy Apple first appropriates methodology and then orders according to a mixture of set rules and rules of his own invention. In the act of drawing and redrawing lines, he also blurs these boundaries. Any distinction between art and cartography or meteorology become disturbed. In this way the continuum begins to manifest itself again in our consciousness. Data sourced from navigational, oceanographic and meteorological charts are reordered, renamed and reinstalled on gallery walls and floors. Here, this act of ordering becomes part of the human continuum. This is further emphasised by the re-emergence of *STS 9301 Irma* as four different manifestations <sup>4-7</sup> to date.

Recently in biology, advances in technology have allowed the development of more *holistic* approaches where large amounts of data can be acquired and analysed as a whole in order to better understand complex systems. The recognition that reductionist approaches tend to fail, because of complexity and redundancy inherent in any biological system, has led to the development of fields such as *systems biology* and *bioinformatics* making genome-level analysis possible. Prior to these developments, biologists concentrated on single genes and proteins, knowing these to be important initial steps in understanding the overall life process. This simple, linear approach to experimentation might give observers the impression that scientists are not concerned with the bigger picture.

The big picture, however, can reveal limits of human perception even with all its technological augmentation. Journalist John Horgan and some other observers of science postulate that science is reaching the end of its ability to make new discoveries. Horgan discussing what he calls “ironic science” pointed out that many new theories, particularly in physics, cannot possibly be verified by experiment. <sup>8</sup>

Some of the most prominent scientists in the world traffic in hypotheses that are remarkably postmodern in character. I like to call this type of theorizing ironic science. The concept of irony is central to that wellspring of postmodernism, literary criticism...The job of a literary critic is...not to pin down the true meaning of the text – an impossible task – but to invent new meanings, ones that challenge received wisdom and provoke further dialogue. Similarly, ironic science advances hypotheses that, while often profound, should not be considered literally true.<sup>9</sup>

If we are truly cognisant of the futility of science to achieve anything but a rough (but useful, nevertheless) approximation of the world, perhaps the tower of Babel need not be struck down. Could it not just stand forever reaching for an infinite and impossibly complex sky? On the ground, the alternative as we know is a lot of anxious postmodern babbling. An evolutionary biologist would say that we only know what we need to know. We are animals, designed by natural selection, not for discovering the deep truths of the universe, but for survival and breeding. Earthworms with their limited perceptual apparatus move away from unfavourable and towards favourable situations. They are negatively photo-taxis, and so avoid light where hungry birds may see them, and move towards where they might find food. They live in a world

where to survive they only need to understand simple stimuli, and so have simple knowledge. But perhaps they wonder about more complex things just as we wonder. Seeking more knowledge, we build towers, telescopes, and particle accelerators and discover the limits of our perceptual abilities. Peering from below into higher dimensions we see mere diagrams, projections and shadows. However, they are interesting and sometimes useful diagrams, projections and shadows; diagrams, projections and shadows that many of us would find it hard to live without.

If a shadow is a two-dimensional projection of the three-dimensional world, then the three-dimensional world as we know it is the projection of the four-dimensional universe.<sup>10</sup>

- 1 Ernst Mayr, *Systematics and the Origin of Species* (New York: Columbia University Press, 1942).
- 2 Yadin Dudai, "Properties of Learning and Memory in *Drosophila melanogaster*", *Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology*, 1976, 114: 69-89.
- 3 Mary Morrison (2005) at <http://window.auckland.ac.nz/archive/2005/03/onsite.php> as last accessed on 21 May 2007.
- 4 Billy Apple, *Typhoon Irma 9301* (Wellington: Hamish McKay Gallery, 1998).
- 5 Billy Apple, *Severe Tropical Storm 9301 Irma* (Hamilton: Waikato Museum of Art and History, 2002).
- 6 Billy Apple, *Severe Tropical Storm 9301 Irma* (Auckland: Onsite + Online, 2005).
- 7 Billy Apple. *Severe Tropical Storm 9301 Irma* (Manukau City: te tuhi/the mark, 2006).
- 8 John Horgan, *The End of Science: Facing the Limits of Science in the Twilight of the Scientific Age* (London: Abacus, 1996).
- 9 John Horgan, "Postmodern irony may be profound, but it's strange science", *International Herald Tribune*, 17 July, 1996.
- 10 See Joan Prosykiuk (ed.), *Modern Arts Criticism, Vol 2, Biographical and Critical Guide to Painters, Sculptors, Photographers and Architects from the Beginning of the Modern Era to the Present* (Detroit: Gale Research Press, 1991).

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