

Deep Field: interconnected euphoria or the overview effect.

Felicity Spear Artist

The title of the work was selected as both a homage and a playful reference to the iconic photograph the *Hubble Deep Field*, (1995), captured by the famous Hubble Space Telescope. Over a ten day period the telescope's digital eye focused deep into the Universe to image what could be described as a core sample of the extent of Universe's observable limits. Its super-sensitive camera captured the light from a tiny part of the sky, and revealed more than 3000 galaxies. This changed the way we see ourselves in relationship to our history and our place in the cosmos, just as Galileo's telescopic evidence had four hundred years earlier.

The title also refers to the sensation that some astronauts experience when looking back to Earth from their all-encompassing view in space. Described as *interconnected euphoria* or the *overview effect*, they develop an intense sense that every atom in the Universe is connected in some way. Somewhat like the sense that a deep state of meditation is said to engender.

My mural sized work *Deep Field* consists of 7 panels, inkjet prints on soft cotton paper, created digitally with Photoshop using fragments of found photographs, maps and mapping data. The panels, (referencing strip maps or, alternatively, the monumentality of the night sky), are pinned side by side high on the wall, spanning its width. The base of each panel extends out from the wall and on to the floor like a large wave. This disrupts the conventional geometry of the right angle. It also references the arc of the sky and the curved nature of space and time as we now understand it. *Deep Field* is like an atomistic, undulating landscape of foaming, flickering and fluctuating surfaces flowing out in to the space of the viewer, while at the same time absorbing the viewer into the space of the work.

When the viewer stands before *Deep Field* she is invited to view the image like a map, to take a journey in space and time through her senses and her intellect deeper and deeper into the space of the sky. This deep space requires mapping at different wavelengths, some seen, others invisible, because some parts of the electromagnetic spectrum cannot penetrate Earth's atmosphere. This is achieved using increasingly sophisticated telescopes, (both Earth-and space-based), and remote sensing and digital imaging technologies. This complexity is necessary in order to see and reproduce images of distant stellar objects or phenomena beyond the visible domain. Much of the light revealed has taken so long to reach us that in fact the origins of the radiation may no longer exist. The horizontal multi-coloured line running across the lower section of *Deep Field* refers to the colours evident in the visible light of the electromagnetic spectrum.

The background of time-lapse star-trail images in *Deep Field* streak across the whole image. They were captured in the 1990's by the astro-photographer David Malin in his photograph *Moonset Over the Warrambungles*, and they express the relationship between time and space in the cosmos. They remind us that we live on a rotating Earth around which the moon revolves. The Earth and the other planets in the Solar System are similarly in orbit around the Sun, which in turn partakes in the timeless rotation of the Milky Way Galaxy, itself one of billions.

Across the centre of *Deep Field* I have inserted a telescopic image of the *Edge-on View of the Milky Way Galaxy 2003*. This image was captured by the Two Micron All-Sky Survey (2MASS), using twin infra-red telescopes in Arizona and Chile. Here on Earth we sit inside the flat spiral disc of the Milky Way, and most of the Galaxy that we see with the naked eye appears as a tenuous band of light stretching across the sky. These infra-red telescopes allow us to see objects normally hidden by the thick dust of our Galaxy. Visible in this false-colour, edge-on, inside-out view of the Milky Way is a thin disc of stars (white), as well as the central bulge or nucleus, surrounded by huge clouds of inter-

stellar dust (yellow), which block our view of the galaxy in visible light. Although not visible to the naked eye, this image takes us deeper into space by, in effect, bringing us closer. The 2MASS project mapped the entire sky to look at the large-scale structure of the Milky Way and the local Universe. Spreading out over much of *Deep Field* from a suggested apex is a wedge-shaped pattern reminiscent of the foam formed by waves as they wash up on the beach. It references the *SDSS 3-D Universe Map*, the wedge shaped slice of the cosmos detected by the Sloan Digital Sky Survey using ground-based, wide-field telescopes in New Mexico, after which the data was analyzed by astronomers at Berkeley, University of California Sciences Lab. By mapping one quarter of the entire sky the survey reveals the variations in the distribution of galaxies, the large scale structure of the sky, the origin and evolution of galaxies, the relation between dark and luminous matter, the structure of the Milky Way and the properties and distribution of the dust from which stars like our Sun were created.

Deep Field can be considered as a speculative map that engages with both art and science to propose a more poetic way of thinking about cosmic space and the night sky. It attempts to immerse the viewer in both the process of mapping and the map itself. Within the vertical and horizontal structure of the work everything is seen simultaneously through the layers of data that appear to be at different magnifications and different dimensions. As if manipulating a camera lens or a mouse, I invite the viewer to imagine zooming in and out at different distances from the surface of the work. Embedded in this surface are manifestations of coloured light, captured in streaks, flashes and pixels, patterns, flecks and dots.

However, as an art work it privileges the subjective, sensuality and aesthetics over clever science, while at the same time immersing the viewer in an experience of the night sky that would not be possible without scientific and technological knowledge and innovation. This speculative map represents parallel phenomena in art and science. Here the structural analogies create another dimension of the real, as well as offering something different from *real life*.

As a painter and print maker my work is increasingly resembling a data-saturated surface. Visual art has for a long period been engaged with optical and mechanical devices such as the camera obscura, later photography and now computerization. It is increasingly a machine-produced visibility. Now the act of looking is also the act of analysis.

Maps have long been associated with printmaking, as well as the discovery of new territory or new ways of looking at received knowledge, and in more recent times, photography and digital technologies. The mapping process can reveal the changing relationships between the observer and the observed, and ideas within our culture that reconstruct nature for our purposes, not only representing space but constructing new models of space. However it is well to remember that the map itself is always embedded in the subjective conditions of human thinking. Maps of the Earth were made long before anyone had seen it from above, from fragmentary data, painstakingly gathered. Much of what we call 'space' has similarly never been seen directly, and the data from which space maps are made is even more incomplete and open to interpretation.

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