

THE ARCHAEA: PAINTING DIGITAL PHOTOGRAPHY

STEPHANIE RUSHTON

Introduction

How does one make a photographic body of work about Deep Ecology; the philosophy that considers humans to be equal to and no more important than any other species, advocating a radical re-adjustment of the relationship between humans and nature? This was the question I asked myself when I began a photographic project in 2014 entitled *The Archaea*. My interest stems from exploring the ecological relationship between humanity and the earth, and there are many sub-fields of psychology emerging to study these effects, such as eco-psychology or conservation psychology. Just as Carl Jung (1875-1961) believed that many of the psychological problems of modern life were caused by mankind's progressive alienation from its instinctual foundation,¹ eco-psychologists believe that much of our modern-day anxiety is caused by an increasing alienation from the natural world. There is barely any untouched habitat left on the entire surface of the planet, as nature has become subservient to culture. If we are connected, not just to each other but all living things, what will be the psychological impact if we destroy the biosphere? Rebecca Solnit (b.1961) writes that,

[...] The complete development of the world as a human only zone—the paving over and flattening of the landscape and the elimination of all creatures but food animals sequestered in factory production sites—threatens to take away not only the imaginative solace of a world beyond us but the very language of the mind.²

¹ C. G. Jung, *The Undiscovered Self* (Toronto: New American Library, 1958), 557.

² Rebecca Solnit, *As Eve said to the serpent: On landscape, gender, and art* (Athens, GA: University of Georgia Press, 2003), 140.

As a child, my favourite books were Frances Hodgson Burnett's *The Secret Garden* (1911) and *A Little Princess* (1905); in the latter Burnett writes:

How is it that animals understand things I do not know, but it is certain that they do understand? Perhaps there is a language, which is not made of words, and everything in the world understands it. Perhaps there is a soul hidden in everything and it can always speak, without even making a sound, to another soul³

The controversial scientist and molecular biologist Rupert Sheldrake suggests that memory is inherent in nature and is transmitted by a process he calls *Morphic Resonance* (1981), a principle stating that all natural organisms share a collective memory that can bring about a type of extrasensory communication or telepathy. This is reminiscent of Jung's "Collective Unconscious", the archetypal storehouse containing primeval memories of our ancestral past. Our shared biological inheritance and connection to all living things are some of the themes examined by the contemporary philosopher John Gray in *Straw Dogs* (2002). Here he quotes Lynn Margulis and Dorion Sagan:⁴ "we are part of an intricate network that comes from the original bacterial takeover of the Earth. Our powers and intelligence do not belong specifically to us but to all life".⁵ The medical industry is becoming increasingly aware of the interdependence of the human race with the rest of nature. In the human body alone there are microbial communities intrinsic to our health, and the average individual shares his/her body with 100 trillion microbes, or three million non-human genes.

Scientists and philosophers are beginning to explore the possibility that humans do not have the monopoly on intellect, and many cultures believe that plants as well as animals are sentient and possess forms of intelligence that we do not fully understand. Animism, the oldest religious belief system in the world, is most commonly held in indigenous cultures, embodying the premise—in direct contrast to Cartesian Dualism—that all material phenomena contains spirit and exists under its own agency. According to the German philosopher, physicist and experimental psychologist Gustav

³ Frances Hodgson Burnett, *A little princess* (Oxford: Oxford University Press, 2012), 118.

⁴ Lynn Margulis, *The symbiotic planet: a new look at evolution* (London: Phoenix, 2013).

⁵ John Gray, *Straw Dogs: Thoughts on humans and other animals* (New York, NY: Farrar, Strauss and Giroux, 2007), 16.

Fechner (1801-1887), “the psyche of plants is no more linked to a nervous system than the soul of man to the human body”.⁶ For Fechner, all things express *Anima Mundi*—that is, a cosmic soul—that came into existence with the birth of the universe and will die, if and when the universe dies. Fechner, an exponent of *Naturphilosophie*, (philosophy of nature) proposed the idea that the universe is one single organism.

During the 1990s the scientific community began to pay considerable attention to the ecological knowledge of traditional cultures. Over seventy *per cent* of the western world's pharmacopeia is based on plant-derived remedies that were initially discovered by indigenous people. Pharmaceutical companies have been plundering—and honing—this botanical knowledge for decades, synthesising the active ingredients in the laboratory and patenting them with little consideration for intellectual property rights. The anthropologist, Jeremy Narby, has spent over twenty years studying the ecology and shamanic culture of the Ashaninca Indians in the Peruvian Amazon, investigating their claims that botanical and biochemical knowledge of the medicinal properties of plants can be communicated directly whilst under the influence of *ayahuasca*, a psychoactive plant-based hallucinogen. Skilled as healers, clairvoyants and interpreters of dreams, shamans sustain their powers through trance states and often describe communicating with the spirits of animals and plants. One of the most renowned shamans of the Western Amazonian is Salvador Chindoy, who insists that his extensive knowledge of the biochemical properties of plants was communicated to him directly by the plants whilst he was in a hallucinogenic state. The results of this knowledge are often empirically confirmed in their use by modern pharmaceuticals, whilst Chindoy's claims are simultaneously dismissed as being unscientific and, therefore, outside the axioms of Western science. Shamanism maintains that nature speaks in signs, and the key to understanding lies in observing the physical similarity of shape or form. The idea that the physical form of a plant might describe its likely—or “potential” medicinal impact is universally known as “sympathetic magic”—which might be translated simplistically as “like cures like”. In Europe, during the sixteenth and seventeenth centuries, sympathetic magic was known as the “Doctrine of Signatures”. The essence of “Signaturism” was the belief that the packaging of a plant held the key to unlocking its curative properties.

⁶ Gustav T. Fechner, *Nanna or About the inner life of plants* (Leipzig: Publisher of Leopold Voss, 1921).



Fig.1.1. Max Ernst, *Human Figure*, 1931, oil and plaster on wood, 184 x 100 cm, Moderna Museet, Stockholm. Photo: Moderna Museet, Stockholm © ADAGP, Paris and DACS, London 2017.

With these thoughts in mind, I set out to make a series of photographic images exploring similarities of form between the animal and vegetable kingdoms. I called the work *The Archaea*, in reference to a kingdom of single-celled organisms with the simplest known molecular structure, thought to be the closest living ancestor to the first forms of life on Earth. I have a fascination for plants, alongside wide-ranging and eclectic interests, including Anthropology, Botany, Ecology, Bio-dynamics, Genetic Engineering, Permaculture, Theosophy and Science Fiction. It occurred to me that I was searching for a way to visually express the concept of *intelligence in nature*; the idea that everything in the universe is biologically and energetically connected, and that all organisms share a common ancestry.

Twentieth-Century Surrealist Fictions

J. G. Ballard's dystopian novel *The Drowned World* (1962)⁷ provided both literary *and* visual inspiration. It led me to revisit the art of the German

⁷ J.G. Ballard, *The Drowned World* (London: Berkley, 1962).

Surrealist painter, Max Ernst (1891-1976); in particular, the 1930s “jungle” paintings known as *L'Histoire Naturelle*. Ballard, best known for his speculative fiction, had a professional background in science journalism, and his plots and narratives are rooted in plausible and comprehensible scientific fact. *The Drowned World* depicts a post-apocalyptic dystopia, and explores mankind’s archaeo-psychic connection to nature and the environment. The novel’s concept sounds as plausible today as it did over fifty years ago when it was first published. Set in “the near future”—as is the case with most of Ballard’s work—the story focuses on a major upheaval in the earth’s environment resulting in severe climate change. The polar ice caps have melted and created a stagnant lagoon where the River Thames once flowed. Seventy years of solar radiation have raised temperatures to levels increasingly unsustainable for human life. London has become a dense, uninhabitable jungle surrounded by encroaching forests of giant horsetails, which Ballard describes as “intruders from the Triassic past”. The protagonist, Kerans, is the manager of a biological testing station monitoring the environmental changes; most other survivors have been evacuated to military bases in the north. Ballard evokes a vivid and oppressive sense of tropical heat and tangled vegetation as the background to a human struggle for survival that is hampered by atavistic changes taking place within the psyche. In the preface to the novel Ballard states, “inner space not outer is the real subject of science fiction”.⁸ It becomes apparent that his literary intentions do not lie in the “typical” apocalyptic storyline but in the heart of the psychological experience. As the novel unfolds it evolves into a metaphor for evolution in reverse. Ballard is reflecting Jungian ideas of the “collective unconscious”, which contain the “psychic life” of all our ancestors. In an interview about the novel’s subtext in 1971 Ballard states:

I wanted to look at our racial memory, our whole biological inheritance, the fact that we’re all several hundred million years old, as old as the biological kingdoms in our spines, in our brains, in our cellular structure; our very identities reflecting untold numbers of decisions made to adapt us to changes in our environment, decisions lying behind us in the past like some enormous, largely forgotten journey. I wanted to go back along that road to discover what made us what we are.⁹

Ballard's *The Drowned World* describes the penthouse of Keran’s lover, Beatrice Dahl. It is furnished with an original Max Ernst canvas, the

⁸ Ibid.

⁹ Ballard, *The Drowned World*, 41.

Surrealist composition mirroring the gigantic environmental mutations that can be seen from the window. In an interview in 1976 Ballard famously stated:

All my fiction consists of paintings. When I start painting I shall stop writing! I think I always was a frustrated painter. They are all paintings really my novels and stories. The trouble is, I haven't any talent!¹⁰

The Drowned World is Ballard's most "painterly" novel, illustrated with what Jeanette Baxter, a leading Ballard scholar, describes as, "[...] a collage of twentieth-century Surrealist fictions in which Ernst's phantasmagorical jungles, Delvaux's haunting cityscapes and Dalí's time saturated meditations" juxtapose and overlap to form "a palimpsest of soft visual geographies".¹¹ Baxter believes that the work of Ballard can only really be understood within the framework of Surrealism.

The Hunting Grounds Of The Savage Eye

In the early twentieth century, André Breton came across Comte de Lautréamont's *Les Chant de Maldoror* (1869)¹² and discovered the phrase "as beautiful as the chance encounter of a sewing machine and an umbrella on a dissecting table".¹³ This metaphor was to become one of the central touchstones of the Surrealist ideology: the collision of two irreconcilable elements that disrupt the observer's preconditioned perception of experience or normality. The Surrealists delighted in the uneasy tension created by combining opposites such as the static and the dynamic, the banal and the baroque, and the ideal and the obscene. Art was only one of the manifestations of Surrealism, a movement that has always been difficult to classify, with its primary goal being one of a metaphysical nature. *Psychic automatism* allowed for a voice to emerge that was free from the corrupting forces of culture and, as Breton stated in his 1924 *Manifesto of Surrealism*, "a voice which expressed the real functioning of the mind [...]" a true

¹⁰ David Pringle and James Goddard, eds., *J.G. Ballard: The first 20 years* (Somerset: Brans Head Books, 1976), 164.

¹¹ Jeanette Baxter, *J.G. Ballard's surrealist imagination: spectacular authorship* (Farnham: Ashgate, 2009), 12.

¹² Comte de Lautréamont and Marguerite Bonnet, *Œuvres complètes: Les Chants de Maldoror. Poésies. Lettres.* (Paris: Garnier-Flammarion, 1989).

¹³ Comte de Lautréamont, *Los cantos de Maldoror*, ed. E. Wittmann (Paris, 1874), 289.

photography of thought".¹⁴ In *Dada and Surrealism* Robert Short writes, "Surrealism tried to renew the whole structure of mythical representation on which our culture is based and which dictates our behaviour [...] with an effective interpretation based on the trinity of love, liberty and poetry".¹⁵ He states that all the artists linked to Breton "nurtured an 'inner eye' that was undistorted by conventional perceptions of the world". They referred only to "interior models" wild landscapes of the unconscious, which were the hunting grounds of "the savage eye".¹⁶ For Breton, the Surrealist painter was a seer "whose goal was not unlike those of the medieval alchemists in their search for the Philosopher's Stone".¹⁷

Surrealist ideology strove to liberate the unconscious mind from conscious rational control by any means possible: from the taking of hallucinogenic drugs, by fasting and through techniques of "automatism". Responding to André Breton's 1924 *Manifesto*, Max Ernst published a collection of thirty-four images under *L'Histoire Naturelle*; a series embracing "psychic automatism" and created with a pictorial equivalent to automatic writing. This was an original technique he termed *Frottage*—a method of rubbing over a rough or textured surface with soft graphite or crayon onto paper. By combining the resulting relief-like textures, biomorphic forms emerged that inspired him to various interpretations.

The Archaëa pays homage to this work and to the "playful", happenstance spirit in which it was created. Ernst, who weaved aspects of the occult, animism and shamanism into his art, had a lifelong interest in alchemy and the hermetic philosophies of ancient Egypt and Greece. He would also have been aware of the interpretation of alchemy not only as the traditional belief of the transformation of base metals into gold, but also as a metaphor for a pathway to spiritual enlightenment. Taking much of his inspiration from non-western culture, Ernst was attempting to regain a spiritual harmony with nature that he felt had been lost through technological advancement and rationalism. Alongside others in the Surrealist movement, his intention was to reconnect with shamanic and primeval ways of seeing and

¹⁴ André Breton, "Manifestoes of Surrealism", in *100 Artists Manifestos From the Futurists to the Stuckists*, ed. Alex Danchev (London: Penguin Modern Classics, 2011), 247.

¹⁵ Robert Short, *Dada & surrealism* (London: Laurence King, 1997), 135.

¹⁶ *Ibid.*, 97.

¹⁷ André Breton, "Second manifesto of surrealism", *La Révolution surréaliste* 12 (December 1929), quoted in M. E. Warlick and Franklin Rosemont, *Max Ernst and alchemy: a magician in search of myth* (Austin, TX: University of Texas Press, 2001), 1.

representing the world in order to challenge the viewer's preconditioned perception of experience.

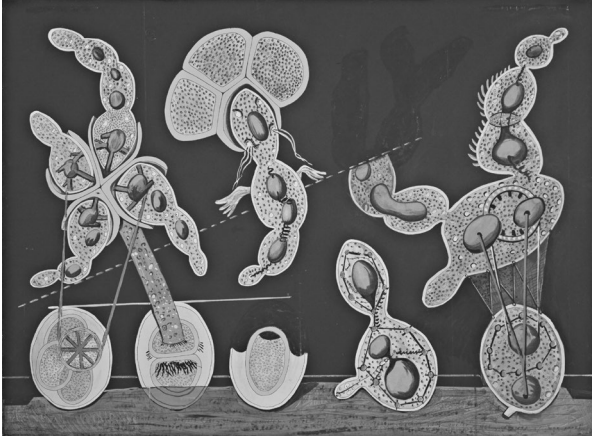


Fig. 1.2. Max Ernst, *The Gramineous Bicycle Garnished with Bells the Dappled Fire Damps and the Echinoderms Bending the Spine to Look for Caresses*, 1920-1921, botanical chart altered with gouache, 74.3 x 99.7 cm, The Museum of Modern Art, New York. Purchase 297, 1937. Digital image © 2017 The Museum of Modern Art, New York/Scala, Florence.

The instigation of the collage for Max Ernst began in 1919 on a rainy day in Cologne:

A teaching aid catalogue caught my attention. I saw advertisements for all kinds of models—mathematical, geometrical, anthropological, zoological, botanical, anatomical, mineralogical and paleontological all elements of such a differing nature that the absurdity of their being gathered together confused my eyes and my mind, calling forth hallucinations which in turn gave the objects represented, new and rapidly changing meaning. My ‘faculty of sight’ was suddenly intensified to such a degree that I saw these newly emerged objects appearing against a new background. All that was needed to capture this effect was a little colour or a few lines, a horizon here, a desert there, a sky, a wooden floor and so on. And my hallucination was fixed.¹⁸

¹⁸ Max Ernst, *Beyond Painting* (Cologne: Benedikt Taschen, 1991), 16.

Ernst saw a way of making the impossible possible by uniting incompatible and contradictory fragments of reality within a picture. Significantly, in his 1936 essay *Au delà de la peinture (Beyond Painting)* he defined collage as being “like the alchemy of the visual image”.¹⁹ In an interview with Evan Mauer for the study *In Quest of Myth: An investigation of the relationship between Surrealism and Primitivism*,²⁰ Ernst confirmed that he was inspired by the tribal traditions of Shamanism and their role as intermediaries between the divine and human worlds. Nadia Chouga, in *Surrealism and the Occult* (1991) writes:

The occultism that influenced symbolism tended to be based upon the Western and Near Eastern traditions, whereas the surrealists investigated ‘primitive’ magical practices (e.g., African and Native American) as well as traditional European sources.²¹

Mircea Eliade, the Romanian religious historian and author of *Shamanism: Archaic Techniques of Ecstasy*,²² defines a shaman as follows:

He is believed to cure, like all doctors, and to perform miracles of the fakir type, like all magicians [...] but beyond this, he is a psychopomp, and he may also be a priest, mystic and poet.²³

Eliade observed the common theme of *The Alchemical Caduceus* or *Tree of Life* that can be seen in philosophies and religions throughout the world and termed it *Axis Mundi* (Axis of the world). Viewed as a stairway or gateway between heaven and earth, shamanic ladders traditionally give access to the “Otherworld”. The *Caduceus*, the traditional symbol of *Hermes*, depicts twin snakes encircling an axis. It can be found the world over in ancient texts relating to the healing arts, including the western world, where it is still seen as the emblem of pharmaceutical medicine. In *The Cosmic Serpent*, Jeremy Narby makes the observation that the *Axis Mundi*

¹⁹ Max Ernst, “Au-Delà de la Peinture”, *Cahiers d’art* 11 (October 1936), 149-182, quoted in M.E. Warlick and Franklin Rosemont, *Max Ernst and alchemy: a magician in search of myth* (Austin, TX: University of Texas Press, 2001), 1.

²⁰ Evan M. Maurer, “In quest of myth an investigation of the relationship between surrealism and primitivism” (Ph.D. diss., University of Pennsylvania, 1974), 277. Quoted in *ibid.*, 16-17.

²¹ Nadia Chouga, *Surrealism and the Occult* (Vermont, VT: Destiny Books, 1991), 23.

²² Mircea Eliade, *Shamanism: archaic techniques of ecstasy* (Princeton, NJ: Princeton University Press, 1964), 4.

²³ *Ibid.*

bears a striking resemblance to DNA and relates this idea to shamanic vision:

I was now of the opinion that DNA was at the origin of shamanic knowledge. By *shamanism*, I understood a series of de-focalisation techniques: controlled dreams, prolonged fasting, isolation in wilderness, ingestion of hallucinogenic plants, hypnosis based on a repetitive drumbeat, near-death experience, or a combination of the above [...] By using these different techniques, it therefore seemed possible to induce neurological changes that allow one to pick up information from DNA.²⁴

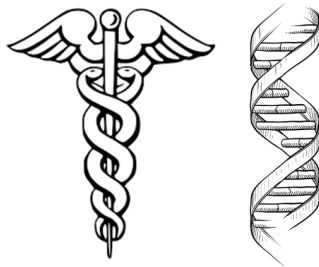


Fig.1.3. *Symbol of the Alchemical Caduceus compared to a strand of DNA.*

One of the methods Ashaninca shamans use to reach this state of altered consciousness is by ingesting *Ayahuasca*, an entheogenic potion made from *Banisteriopsis Caapi*; a liana vine which grows in double helices, the form of which resembles DNA and is also known as “spirit vine”, “vine of the soul” or “ladder to the Milky Way”.

The Archaea

The series of still-life images created for *The Archaea* appropriate the “language of collage” interweaved with ecological, Surrealist, and science-fictional narratives. Many of the photographic techniques used in the creation of the images are only viable with a digital workflow such as focus stacking; working with analogue technology would increase the production time with no benefit to the aesthetic. Several of the images in *The Archaea*,

²⁴ Jeremy Narby, *The cosmic serpent: DNA and the origins of knowledge* (London: Phoenix Press, 2003), 108.

and in particular the close-up works, were made with a digital focus stacking technique to extend the depth of field. This technique is purposefully used to create a flattened plane with a two-dimensional appearance more comparable to that of a painting. Or, more precisely, to avoid “bokeh”—the aesthetic quality of blur produced in the out-of-focus parts of an image that is unique to lens-based imagery. Focus stacking is a fairly recent digital solution for photographers; the focus stacking software maps recognisable algorithmic points, aligns the consecutive frames and creates a series of layer masks that discretely lock to each layer in the stacked series. Following this, the layers are merged and depth of field is extended. Alongside the practicalities, there is another side effect of focus stacking that can be observed: the subject becomes more visceral. This might be described as a way of making the mechanical eye of the camera register more in line with the way in which the human eye perceives the world. I am interested in exploring how emerging photographic technologies can create fresh ways of seeing for the same reasons that Max Ernst experimented with new methodologies: in order to disrupt the sense of the familiar.

The image *Hallowed Black* (Fig.1.4) was made from a series of five sequential frames depicting a sprawling Russian Vine (*Fallopia Baldschuanica*) with successive planes of focus from a fixed vantage point. For the technique to be successful both camera and subject must be static, enabling the consecutive frames to be aligned perfectly. In this example, I was mid-way through executing a sequence of images when a gust of wind moved the vine. I decided to perform the digital focus stacking procedure anyway as an experiment and, although it failed in one respect, a “sense of time” had entered the equation. The tendrils of the vine displayed a distinctly uncanny quality with a creeping, anthropomorphic effect of clawing fingers. Sigmund Freud’s “Uncanny”—or *Unheimlich*—describes a sense of the familiar yet unfamiliar, which typically instils a feeling of unease. “The Uncanny is that class of the frightening which leads back to what is known of old and long familiar”.²⁵ This sense of the Uncanny is present in much of Max Ernst’s jungle imagery, and one I was hoping to exploit in order to emphasise the idea that plants are not the mere backdrop to life that they are so often thought to be. Indeed, Scientists have long since discovered that plants are not just senseless automata. The pioneering Hungarian biologist, Raoul Francé, argued in his eight volumes of *The Life of Plants* (1906) that plants could move just as freely as any animal or

²⁵ Sigmund Freud, *The standard edition of the complete psychological works of Sigmund Freud Volume 17 (1917-19)*, trans. James Strachey (London: Hogarth Press, 1964), 220.

human but at a much slower pace. He went on to state provocatively that, “plants are able to react so certainly, so variously, and so promptly, they must have some means of communicating with the outer world, something comparable or superior to our senses”.²⁶



Fig. 1.4. Stephanie Rushton, *Hallowed Black*, 2015, digital C-type, 59.4 x 59.4 cm. © Stephanie Rushton

The Drowned World (Fig.1.5) refers directly to Ballard's novel of the same name. The image was created with a focus stacking procedure and, subsequently, digitally manipulated with image editing techniques in *Adobe Photoshop*. Post-production filters enhance a watery, labyrinthine, sense of suffocation. Ernst's sensual and psychologically disturbing *L'Histoire Naturelle* series resonate with the anthropomorphic qualities of the type of vegetation I was drawn to photograph. Replicating a form of “automatism”, I began to collect “found” vegetal flotsam from the garden to juxtapose within photographic *tableaux*.

²⁶ Peter Tompkins and Christopher Bird, “Introduction”, in *The secret life of plants* (New York, NY: Harper & Row, 1973), xiii.



Fig.1.5. Stephanie Rushton, *The Drowned World*, 2015, digital C-type, 59.4 x 59.4 cm. © Stephanie Rushton

Nature's Retribution (Fig.1.7) was created from a series of three “found objects” unearthed over the period of a week; an “anthropomorphic” potato from a recent crop in the vegetable garden, an unidentifiable animal bone resembling a stubby, petrified tree-trunk and a withered, labyrinthine nettle root. In the spirit of “Surrealist automatism”, I allowed these objects to suggest their own narrative from the absurd juxtapositions. Studio backlighting was used against a dark velvet background to reveal shape and emphasise the labyrinthine texture of the root. The low angle camera perspective lent stature to the form. Through these devices the nettle root becomes reminiscent of the Greek goddess and protector of nature, Artemis brandishing a weapon. The landscape becomes an apocalyptic battlefield, paying homage to Ernst's *Europe after the Rain* (1940-42). The *Petrified Forest* (Fig.1.8) makes reference to an Ernst canvas painted in 1926, and using the *Grattage* technique; an example of the artist using psychic automatism to imbue a sense of primordial otherworldliness.



Fig.1.6. Max Ernst, *The Nymph Echo*, 1936, oil on canvas, 46 x 55 cm, The Museum of Modern Art, New York. Purchase 262, 1937. Digital image © 2017 The Museum of Modern Art, New York/Scala, Florence.



Fig.1.7. Stephanie Rushton, *Nature's Retribution*, 2015, digital C-type, 59.4 x 84.1 cm. © Stephanie Rushton



Fig.1.8. Stephanie Rushton, *The Petrified Forest*, 2015, digital C-type, 59.4 x 84.1 cm. © Stephanie Rushton

The *Grattage* technique (the translation of *Frottage* to oil paint) generated a series of “Fishbone Forests” in which paint was scraped away to reveal the underlying structure of objects laid beneath the canvas. This process “automatically” unveiled a subconscious world that Ernst metamorphosed into plants and animals. Reflecting his German Romantic heritage, forests were a recurring theme in Ernst’s work and he often recounted his fear and fascination with a forest near to his childhood home. The German artist, Hans Richter describes Ernst’s work as indictment or prophecy “not art”. He writes:

Often Ernst’s frottages of vegetation assume grotesque forms like strange and malevolent animals, such as *The Horde* (1927). These forms can be linked to the ‘primitive’ tendency of animism to see nature peopled by spirits and demons. Ernst was also interested in the idea of totemism, the tribal identification with some entity of nature. Ernst had his own ‘totem’, Loplop the bird king, a kind of alter ego that is featured in his paintings.²⁷

Continuing in the “spirit of automatism”, I came across an anthropomorphically surly-looking stick and created a *tableau* in the studio,

²⁷ Hans Richter, *Dada, art and anti-art* (London: Thames and Hudson, 1978).

repeating the lighting set up of the previous images in order to separate the subject from the dark background and emphasise the gnarly texture. The oil paint filter in *Adobe Photoshop* has a degree of optionality, allowing a textural stylisation reminiscent of tree bark that was applied at the postproduction stage.

The Handmaid's Tale (Fig.1.9), and *The Archaea* (Fig.1.10) are images responding to themes of genetic engineering, modification and mutation, alongside fears surrounding chemical pollution and infertility. The title *The Handmaid's Tale* is appropriated from Margaret Atwood's 1980s feminist speculative fiction (and recent screen adaptation). The overtly sexual image of a Euphorbia plant is paradoxically reminiscent of the puritanical costume worn by the Handmaidens, (women "kept" for their reproductive capacity in a dystopian future where sterility has become the norm). The digital image is made with a macro lens and *Zerene Stacker*, a software application that has the capacity to override the camera (whilst connected to a computer), executing as many images as are required to render the plane of focus fully sharp from front to back. In this sequence, approximately one hundred frames were made and then stacked together by the application to create a final image. This methodology almost removes the photographer from the act of making the picture, which seems appropriate to the dystopian nature of the subject matter. The final image was subsequently manipulated in *Photoshop* to modify the colour of the plant from its original green to red, reinforcing the sexual innuendo and enhanced to suggest bioluminescence or genetic modification. In 1694 German professor, Rudolf Jakob Camerarius, published *De Sexu Plantarum Epistula*, becoming the first botanist to declare that flowering plants have sex. The idea that plants could have sexual organs caused great controversy at the time, and was initially fiercely contested by the establishment. This discovery led to the taxonomic system of classifying the plant world into species, based on variations in the male sexual organs, or pollen bearing stamens.

The Archaea (Fig.1.10) is an image with a similar motif to *The Handmaid's Tale*, created from the stalk of a foxglove (*Digitalis Purpurea*) that has shed its flowers. The entire plant is highly toxic, however careful extraction of *Digitalis P.* has been used as a treatment for heart conditions since 1785. Its visual juxtaposition with the heads of flowering garlic umbels creates an image that works to explore themes of plant hybridisation. There is also an element of figurative anthropomorphism present in the composition, and the plants appear to have assumed a male and female polarity. The application of *Photoshop's* oil paint filter lends the image a glossy,



Fig. 1.9. Stephanie Rushton, *The Handmaid's Tale*, 2015, digital C-type, 59.4 x 84.1 cm. © Stephanie Rushton

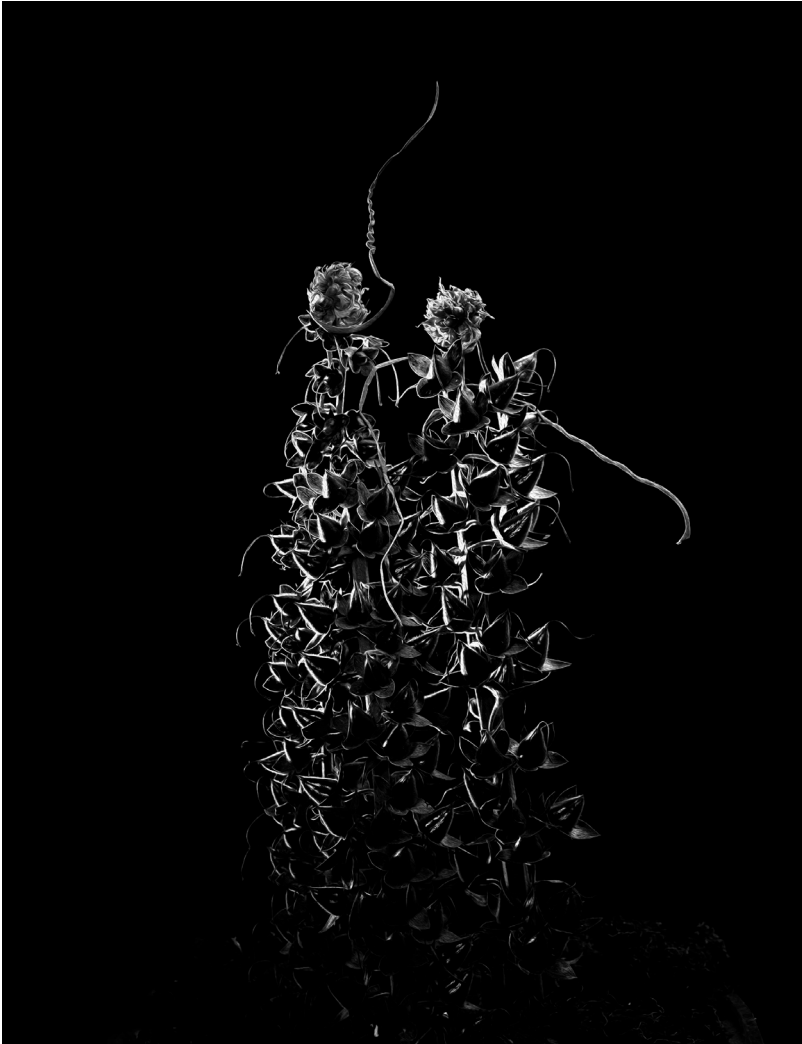


Fig.1.10. Stephanie Rushton, *The Archaea*, 2015, digital C-type, 59.4 x 84.1 cm. © Stephanie Rushton

lustrous quality and simultaneously adds a scientific, cellular appearance, which reinforces the Archaean molecular link between animal and vegetable.



Fig.1.11. Max Ernst, *Nature at Dawn*, 1938, oil on canvas, 81 x 100 cm, Spies/Metken 2296 Private Collection. Photo: Alamy © ADAGP, Paris and DACS, London 2017.

Ernst's *L'Histoire Naturelle* paintings, which include *The Nymph Echo*, *Nature at Dawn* and *The Joy of Life*, reflect the Northern tradition originated by the Romantic artist Caspar David Friedrich (1774-1840); their scientifically accurate rendition of detail is a starting point for Surrealist recreations of woodland flora and fauna. *Nature at Dawn* (Fig.1.11) pays homage to Ernst's painting of the same name in which the jungle is a landscape of uncontrolled proliferation. Suggestively carnivorous, threatening plants interweave with biomorphic figures amid a cycle of death and rebirth, in a continuous process of evolution.

The photographic tableau was constructed in the studio from a collection of largely exotic plants chosen for their anthropomorphic characteristics,

and composed in-camera—one plant at a time—to fill the frame. Harsh backlighting increases the contrast and adds an unnerving three-dimensional quality to the image. The low camera angle gives a worm-eye perspective, making the plants seem “larger than life”. The addition of the sparrow was an inexplicable coincidence. As I left the studio to gather more plants, I found the dead bird on the floor; I decided to add it to the composition, given Ernst had always represented himself in his work as a bird. Ernst's obsession with birds stemmed from his childhood when, allegedly, moments after discovering his pet cockatoo had died he learnt of his sister, Loni's, birth. Confirming this in his autobiography, *Au-delà de la Peinture*: he writes in the third person, “a dangerous confusion became encrusted in his mind”.²⁸ In much of his later work Lop-Lop, the bird-king, became Ernst's shamanistic alter ego. He would of course have been aware of the significance of the ritual death and rebirth required of a shaman before the acquisition of healing powers and adoption of a mythical totem animal.

Conclusion

Half-human/half-animal figures, feature prominently in ancient imagery the world over. The French caves of Lascaux in the Dordogne, known as the “Sistine Chapel of Prehistory”, contain over six hundred parietal wall paintings, including a 17,000-year-old image of a bird-headed man. This hybrid imagery is thought to demonstrate human identification with animals, and awareness of the transformations that can occur in nature. Animals were worshipped as divinities in many cultures, and the animist belief that we are part of nature is embedded in the human psyche. John Gray believes that for most of human history we did not consider ourselves to be any different to other animals; the humanist idea of superiority over all other creatures is a fairly recent aberration. Plato and Descartes have left us with the conviction that humans are the only species with consciousness. This attitude of anthropomorphic superiority may be responsible for many of the atrocities committed by mankind towards the natural world. In the words of Gray, from the provocative and brilliant *Straw Dogs*:

The senses of plants are sophisticated; some can detect the lightest touch (better than the activity of human fingertips) and they all have a sense of vision. The oldest and simplest microbial life forms have senses that resemble those of humans. Halo-bacteria date back to the beginnings of life on earth. They are organisms, which can detect and respond to light by virtue

²⁸ Max Ernst, *Beyond Painting* (Washington, D.C.: Solar Books, 2009).

of a compound called rhodopsin—the same compound that is present as a pigment in human eyes, and which enables us to see. We are looking at the world through eyes of ancient mud.²⁹

Conscious perception is only a fraction of what we know through our senses. According to Gray, where animals differ from humans is in their lack of the sensation of self-hood; the quality that constitutes individuality. Self-awareness or self-consciousness can be a hindrance to performance; we often do our best work when we are least self-aware. Recent neurobiological studies have shown that the *superior frontal gyrus*, the area of the brain associated with introspection and self-doubt, can be shut down during times of intense stress or concentration, leaving a robotic like functionality; likened to being on autopilot.³⁰ Many cultures and philosophies recommend training to disrupt self-awareness, and the meditative states cultivated are attempts to bypass it completely. Use of psychotropic plants, hypnosis, fasting, divination, music and dance are also popular techniques. Surrealism attempted to radically alter the way that objective reality was perceived, the surrealists understood that to view the world afresh we must recover the vision of things by unconscious or subliminal perception. The *vegetalista*, or plant shamans of the upper Amazon believe that the hallucinogenic plants they ingest are spirit teachers, *doctores* who can reveal the truth of reality, a reality that remains hidden from view to a normal state of consciousness. The Archaea sets out to investigate lines of enquiry that have preoccupied artists, philosophers and scientists for centuries: intelligence in nature, and the shared genetic and biological inheritance of the animal and vegetable kingdoms.

The Archaea attempts, via digital photographic technology, to explore contemporary ways of depicting the “automatic” techniques employed by the surrealists. Ernst's frottage and grattage methodologies have been updated, by the juxtaposition of inanimate “found” objects within photographic tableaux; in an effort to disrupt the sense of the familiar, and to emulate ways of seeing that may once have been common but have become lost in today's sensory visual overload.

²⁹ John Gray, *Straw dogs: Thoughts on humans and other animals* (New York, NY: Farrar, Straus and Giroux, 2007), 59.

³⁰ Gaia Vince, “Watching the brain switch off ‘self awareness’”, *New Scientist*, published April 19, 2006, <https://www.newscientist.com/article/dn9019-watching-the-brain-switch-off-self-awareness/>.

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