Submerged Surrealism:

Science in the Service of Subversion

Christina Elizabeth Heflin

Royal Holloway, University of London

Department of Media Arts

Submitted for the Degree of Doctor of Philosophy

August 2021

Declaration of Authorship

I, Christina Elizabeth Heflin, hereby declare that this thesis and work presented in it is entirely my own. Where I have consulted the work of others, this is always clearly stated.

Signed

Date August 9, 2021

Abstract

The obsessive representation of and violence against the eye is inescapable in Surrealist art, with works like Luis Buñuel and Salvador Dalí's *Un Chien andalou* and Georges Bataille's *Story of the Eye* being the most renowned for their depictions of acts of ocular defilement. Over the years scholars have questioned these artists' intentions and have even gone so far as to position them as anti-ocular as a reaction to the trauma of the Great War.

I argue that the compromising of the eye's physical integrity is not necessarily an outright rejection of vision. It symbolically questions the hierarchy of the senses. The use of marine animals in Surrealist works by Eileen Agar, Jean Painlevé, Robert Desnos and Man Ray represents beings which rely on other modes of sensing, navigating their worlds without the primacy of vision. These artists were not anti-ocular, but rather they were using depictions of the marine to question the regimes of ocularcentrism, gender roles and anthropocentrism. Furthermore, they were doing this in a way that displayed their engagement in empirical, materialist science, which has been overlooked in favour of discussing Surrealism's interest in the metaphysical.

Considering the early twentieth century scientific discoveries widely discussed in popular science journals and read by Surrealist artists, I argue that they were using these creatures to question the status quo. Surrealism's depictions of marine life reflect an interest in exploring alternative sensory regimes – rejecting the primacy of vision above other senses – calling into question the position of the human-animal relation by blurring these boundaries and by challenging the traditional places of men and women at this time. These representations express a desire to adapt to a society that has been turned upside down by war to merge with the capacities of these creatures, expanding perception and exploring the faculties of sensing typically denied to the human.

Acknowledgements

First and foremost, I wish to express my deepest appreciation to my supervisor, Professor Christopher Townsend, who guided me into one of the best decisions I have ever made. His encouragement, expertise, faith and wisdom have been invaluable in this project.

Second, I would also like to acknowledge of the Department of Media Arts at Royal Holloway, University of London for the financial support provided as well as the faculty and staff for their warm welcome to the department. I am also indebted to the many archivists, librarians, researchers, curators and other institutional keepers who provided guidance and support, including the Victoria and Albert Museum, Tate Gallery, Imperial War Museum, l'Institut national d'histoire de l'art, la Bibliothèque nationale de France, The Getty as well as many members of the International Society for the Study of Surrealism.

To the friends who have buoyed me through this, my heart is bursting with gratitude. To the friends I have made while on this path, I am so happy that we are now travelling together. To Burt, thank you for your companionship during these final months.

Finally, to Alex, my light, my joy, my rock. I dedicate this to you, schatje.

Table of Contents

ABSTRACT 3
ACKNOWLEDGEMENTS 4

INTRODUCTION 7

SENSORIAL MODES AND VIOLENCE IN THE GREAT WAR 25
  [The Ocular, Sensing and Violence] *34*
[DESTRUCTION OF HIERARCHIES] 41

CHAPTER ONE – MAN RAY & ROBERT DESNOS 56

[THE SENSING BODY AND OCULAR VIOLENCE IN CULTURE] 56
[*HISTOIRE DE L'ŒIL* – 1928] 92
[*UN CHIEN ANDALOU* – 1929] 96
[*L'ÉTOILE DE MER* – 1928] 111
["LE LANGAGE DES FLEURS"] 121

CHAPTER TWO – JEAN PAINLEVÉ 128

[THE EARLY DAYS OF SURREALISM] 130
[JEAN PAINLEVÉ, SCIENTIST] 149

CHAPTER THREE – EILEEN AGAR 183

  [The Ceremonial Hat for Eating Bouillabaisse] *190*
  [Marine Collage] *207*
  [Materials at Tate Archives] *220*
[THE ARTIST AND HER CONTEMPORARIES] 233
[BRITISH SURREALISM] 242

EPILOGUE 266

[OVERVIEW OF POINTS DISCUSSED] 266
  [Introduction] *266*
  [Chapter 1 – Man Ray and Robert Desnos] *266*
  [Chapter 2 – Jean Painlevé] *267*
  [Chapter 3 – Eileen Agar] *267*
[SYNTHESIS] 268
[AREAS OF FURTHER INQUIRY] 270
[CONCLUSION TO THE EPILOGUE] 271

REFERENCES 272

INTRODUCTION

An entire underwater menagerie is on marvellous display within the realm of Surrealism: a film of a love story shot from the perspective of a starfish in a glass jar, documentaries of male sea horses giving birth and octopuses climbing trees as well as a sculptural hat covered in coral, starfish and seashells with an evolutionary path of its own. The interwar works featuring undersea fauna made by Surrealist artists in France and England are a sight to behold yet have garnered little attention for their exaltation of the marine. What was the appeal and the purpose of these animals within the context of interwar avant-garde creativity? What drew these artists' minds to incorporate such uncanny creatures into their creative expression? This thesis takes a multi-layered and interdisciplinary approach to consider these questions and more, looking at the context in which these works were created and the historical elements which surround the Surrealist movement itself. To begin, there will be an examination of what catalysed this facet of the movement, what effects this had on the status quo (and vice-versa) and how specific artists based in Paris and London in the 1920s and 1930s took the natural world and translated it into the art that they made.

The Surrealist movement coincided with a time of major political, economic and cultural shifts following World War I. Coming out of a war in which many learned that they could no longer rely on sight to help them survive caused a crisis of faith in vision. People could no longer believe their eyes. Unsurprisingly, depictions of violence against the eye began to emerge in western culture – it was no longer the infallible source of information believed for centuries to be indisputable. Cephalic ocularity, or the type of vision which traditionally perceives via the eyes located inside the head, had betrayed those on the battlefield; combined with the new technologies of remote seeing developed during the war, the natural, unenhanced human eye had shown its limitations. Acts of violence against the eye in Surrealism demonstrated a desire to further explore its weakness, depicted in different forms as a way of challenging ocularcentrism, or the paradigm of visual primacy. Two important works within the Surrealist canon which depict this violence, exemplify the weakened place of the eye: *Story of the Eye*, the 1928 novella written by Georges Bataille (1897-

1962) under the pen name Lord Auch, and *Un Chien andalou*, a 1929 short film by Salvador Dalí (1904-1989) and Luis Buñuel (1900-1983).[1] As Patrick ffrench explains one of several instances of their interrelatedness,

> 'Toucher à l'œil:' the taboo whose transgression *Histoire de l'œil* narrates passes through various phases; it is 'regardé,' 'touché,' 'bu,' 'tranché,' 'coupé.' 'Toucher à l'œil' is also an operation which paradoxically represents the deformation of the very act on which depends this representation – the act of reading. It narrates the regressive desublimation of the position of the subject of vision, and therefore of the subject as reader. The *reading* of *Histoire de l'œil* would thus correspond to an image of vision mutilated – the cut of the eye which the infamous image of *Un Chien andalou* proposes.[2]

These displays of ocular violence by means of inherently visual mediums of reading and watching, demonstrate a desire to disrupt vision.

This disruption subverts visual primacy, which directly ties in with the thematic use of sea creatures in interwar Surrealist works, including those by Robert Desnos (1900-1945), Man Ray (1890-1976), Jean Painlevé (1902-1989) and Eileen Agar (1899-1991). Many of these animals have non-ocular modes of sensing, living entirely without the use of cephalic, retinal eyes. Those with eyes, like octopuses and seahorses, nevertheless lack the same dominance of ocularity over other sensory modes, relative to humans. Instead, they have other modes of sensing, such as photoreceptors and feelers to help navigate their environment. Surrealism features an overflowing abundance of different references to the marine world. From Breton's *Poisson Soluble* (1924) to Dora Maar's *Untitled [Main-Coquillage]* (1934) and even Marcel Mariën's *La Danseuse étoile* (1991), I selected the works and artists here due to a mix of personal interest as well as these elements' abilities to resonate with the scope of my inquiry. For reasons of practicality and historical cohesion, I restricted this thesis' inquiry to interwar Europe.

What did the use of these animals and Surrealist artists' interest in them signify? Why would Surrealists use animals in their work whose modes of sensing the world around them differed entirely from that of humans? This thesis seeks to establish the relationship of vision's contraction and expansion and interwar Surrealist art containing marine fauna. This relationship will then be taken to demonstrate that these artists were actively engaged with the biological sciences and were grounded in a materialist approach to

---

[1] *Histoire de l'œil.* Throughout this thesis I will employ the common-use term (if in English) with the text body, with the original title in the footnotes. However, as will be seen in the next lines, some scholars use the original title of Bataille's novella. In the case of *Un Chien andalou*, it is commonly referenced in its French title.

[2] Patrick ffrench, *The Cut: Reading Bataille's Histoire de l'oeil* (Oxford: Published for the British Academy by Oxford University Press, 1999), 32.

Surrealism. Working in this way, they challenged hierarchies relating to ocularcentrism, gender and anthropocentrism. In Buñuel's own words, "The real purpose of Surrealism was not to create a new literary, artistic, or even philosophical movement, but to explode the social order, to transform life itself."[3] These artists used sea creatures to depict this transformation – metamorphosis, evolution – that they had been seeking.

Moreover, many of the technologies which have come to define the Great War find parallels with the capacities of these animals. Inhibited vision caused by deep trenches and smoke is no longer a problem because these animals possess strengthened non-ocular modes of sensing. Tim Armstrong discusses "a mechanomorphic imaginary" and the way it "links the organic to the mechanical, enabling the body to be seen as a motor, and technological society to be seen in terms of the body," stemming from nineteenth century industrialisation.[4] I argue that a parallel reasoning can be applied to a "zoomorphic imaginary" for the twentieth century in which the post-World War I human body, coupled with recently developed technologies, suddenly found itself possessing abilities approximating those belonging to marine animals, especially those found in the works which will be discussed.

Cephalopods create ink clouds akin to the smoke screens used on the battlefield. They can also change colour and blend in with their surroundings, nature's camouflage.[5] Starfish which regrow lost arms draw parallels with wounded soldiers who received prosthetics or underwent reconstructive surgery to replace lost limbs. Other animals acclimate after attack, showing nature's ability to shift into other sensory modes. The "well-armed crustaceans are very fond of jujitsu with the twisting of claws – pulled off pincers rejuvenate, an antenna soon substitutes for an eye."[6] These aquatic animals allowed humans to imagine what it would be like to not drown, whether in naval battle or from the enemy's poison gas. Coral and other members of the phylum Cnidaria possess nematocysts that project barbs, recalling the barbed wire seen on the battlefield. Soldiers and governments reduced their enemies to animal status, either to excuse atrocities of war or to create bellicose sentiment, blurring the human-animal boundary within the concept of deanthropocentrisation. The belligerent and protective elements seen here share many similarities and speak to a strong and heretofore underexamined aspect of Surrealism. These connections demonstrate how their use was a desire to go beyond the human in an underwater exploration of the senses as well as a subversion of hegemonic structures within western society during the interwar period.

---

[3] Luis Buñuel, *My Last Breath* (London: Cape, 1982), 107.

[4] Tim Armstrong, *Modernism, Technology, and the Body: A Cultural History* (Cambridge: Cambridge University Press, 1998), 81.

[5] Painlevé's film on the crustaceans, *Hyas and Stenorhynchus* (1929) also displays how they cover themselves with seaweed, algae and other detritus as a form of camouflage.

[6] Jean Painlevé, "Mysteries and Miracles of Nature," in *Science is Fiction*, ed. Andy Masaki Bellows and Marina McDougall, trans. Jeanine Herman (San Francisco: Brico Press, 2000), 122.

This thesis will open with a review of the historical context in which Surrealism was formed, including the political, technological and scientific aspects which influenced the group's members and their work. Then it will open toward a discussion of sensorial violence, how it was experienced during the Great War as well as its translation into literary and art works. We will then proceed to a consideration of Jay's argument that ocular violence in notable Surrealist works like *Story of the Eye* and *Un Chien andalou* represented a specific an anti-ocular sentiment which sought to destroy vision. This will then be countered by my own approach to these works as being part of a much older discourse of western art that obsessed over vision and how this – especially when considered alongside Surrealist works with marine fauna – sought to disrupt the legacy of ocularcentrism by taking vision from its sensorially dominant pedestal and rearranging the hierarchy. This disruption extended to other hegemonies, including gender roles and anthropocentrism. Lastly, what these artists accomplished through their use of these sea creatures was a display of their engagement with materialist science, especially in the form of empiricism and biology.[7] These four pillars of inquiry – ocularcentrism, gender roles, anthropocentrism and materialist science – are not fixed in place. Moving forward, they will fluctuate pneumatically within the thesis to display the individual strengths of structural challenges in the examined works.

Whilst the introduction provides the context for these artists' work, the three main chapters address Surrealist artworks which feature references, depictions or actual specimens of sea creatures. I discuss works as they relate to the specific cultural and historical moments in history. I demonstrate how these artists, each in their own way, actively engaged in a science which blended the materialist, natural and biological; how their use of fauna was a demonstration of the human body's potential to expand its own abilities to process the collective trauma after the Great War. I also highlight the featured animals' various physiological sensorial capacities as well as ways in which they subvert and challenge hierarchies. Additionally, each chapter considers a different Surrealist publication which will also demonstrate the relationship that many of the movement's writers had to the natural world and empiricist thought.

---

[7] This provides a parallel stream alongside the focus on Surrealism as it relates to metaphysics, onirism and the unconscious.

We will begin the first chapter with a historical-contextual discussion and then move to a focus on Man Ray and Desnos' 1929 film *L'Étoile de mer* as well as an analysis of a few key elements from the journal *Documents*, edited by Bataille. The second chapter opens with a consideration of the publication *Surréalisme* which slightly predated André Breton's (1896-1966) pivotal manifesto. This testifies to a territorial dispute within early Surrealism around Yvan Goll's (1891-1950) attempt to establish the movement in a framework rooted in nature and materialist reality. It continues with an examination of three works from one of *Surréalisme*'s contributors, Painlevé, a documentary filmmaker and marine biologist situated on the peripheries of the movement, whose use of film techniques and anthropomorphization created narratives that allowed viewers to relate to these creatures if not become them altogether. Lastly, one sculpture, one collage and various archival items from Agar will be analysed for their engagement with materialist science and the challenge they present to hegemonic structures. The accompanying publication here is the fourth issue of the *International Surrealist Bulletin*, published in 1936. I consider the important aspects of not only the first major Surrealist exhibition in London but also the unique qualities of the birth of the British Surrealist movement itself. The epilogue will feature a summary of my findings, considerations of the bigger picture in which this all occurred before closing with ideas for areas of further inquiry.

Before they were Surrealists, many founding members of the movement were soldiers, including unofficial member Guillaume Apollinaire (1880-1918). Who else came to the front? Why did they come? What did they do and what happened to them? This section scrutinises the relationship between the Great War and the urSurrealists. This is to provide the context in which the movement was born and to draw lines between these networks created as well as the shared sentiments which followed the armistice. Many of them were conscripted, but there were also others who embraced it, and by 1918, this sentiment would have changed for many. This included Blaise Cendrars (1887-1961), Benjamin Péret (1899-1959), Philippe Soupault (1897-1990), Louis Aragon (1897-1982), Breton, Bataille and Théodore Fraenkel (1896-1964).[8]

> At the end of a war that they were too young to have wanted, but which has permanently traumatized them all, a small group of young people already occupied with literature come together with a common goal: to overthrow, to destroy. In fact, they had all come out of the trenches fuelled by a hatred directed as much against the bourgeois society responsible for the war as against official literature, that of patriotism and brainwashing propaganda.[9]

On both sides of the war many avant-garde movements emerged. "In France, Germany, Russia and Great Britain, writers, painters and privileged boys in good schools were drawn by the powerful call of 'wartime voluntary service' – avant-garde artists possibly more than the others (the Italian Futurists, for instance), but in any case, artists who were not at all bellicose but who felt, like Otto Dix, that they couldn't 'refuse to give themselves to the war.'"[10] However, not everyone who would later become a Surrealist was involved – at least directly – in the war. Some were too young to fight; some were women and others resided in neutral countries. Those discussed in this work who did not serve in World War I were nevertheless affected; between the collective grief in the countries involved and the "huge amount of commemorative activity that took place in the 1920s and 1930s," it was unavoidable.[11] Everyone in western culture was touched in some way by this war.

Surrealism's birth has an official, canonical version: in 1924 Breton wrote and published his *Manifeste du surréalisme* from which sprung this major movement within western art and literature. However, its genesis is more nuanced. Though Breton is seen as the undisputed founder and leader of the movement, the term "Surrealist" was coined by Apollinaire who used it in the 1917 preface to his play, *Les Mamelles de Tirésias* (heretofore *Mamelles*), written in 1903.[13]

---

[8] Evelyne Desbois, "Vivement la guerre qu'on se tue!," *Terrain* 19 (1992): 2; Laurence Campa, "Dans la nuit des éclairs," *L'Invention du surréalisme: des* Champs magnétiques *à* Nadja, ed. Bérénice Stoll and Olivier Wagner (Paris: BNF Éditions, 2020), Bibliothèque nationale de France, Exhibition catalogue, 19-20. Péret was a military nurse, Soupault fell ill after a defective typhoid vaccination and though enlisted, remained in Paris. Aragon was a military nurse, worked at the neuropsychiatric centre of Saint-Dizier, la Salpêtrière and le Val-de-Grâce with Breton and also saw combat, including at Chemin des Dames. Bataille was only briefly enlisted and did not see combat. Fraenkel served as an auxiliary physician during the war.

[9] "Introduction," *L'Invention du surréalisme: des Champs magnétiques à Nadja, ed. Bérénice Stoll and Olivier Wagner (*Paris: BNF Éditions, 2020), Exhibition catalogue, 9. (My translation.)

[10] Stéphane Audoin-Rouzeau and Annette Becker, *14–18: Understanding the Great War* (New York: Hill & Wang, 2002), 99.

[11] Audoin-Rouzeau and Becker, *14–18,* 219.

[13] David Drew, "The Savage Parade – From Satie, Cocteau, and Picasso to the Britten of 'Les Illuminations' and beyond," *Tempo* 217 (2001): 13; Tim Mathews, "Guillaume Apollinaire." in *The International Encyclopedia of Surrealism,*

Apollinaire did not formally define "Surrealist" and would not live to see Breton's manifesto, dying days before the end of the war. Others were interested in the term bequeathed by Apollinaire. Most notable of these was Goll, who was committed to his own idea of Apollinaire's vision, gathered from clues the writer left behind. Breton, however, did not hide his ambivalence to Apollinarian loyalty. His vision was rooted in dreams, a fantasy of Freudian psychology and the metaphysical – which is typically what Surrealism is known for today. Automatic writing, which he began in 1919 with *Champs magnétiques,* and the *cadavre exquis* ruled supreme; chance, though a remnant of Dada like other aspects, was a source of many works created within Bretonian Surrealism. This thesis explores works by Surrealists which did not necessarily embody these themes, and even Breton would move on from them. Following along with a swing toward the empirical, many sculptors, painters, writers, poets and filmmakers appeared to favour a more tangible realm which conveyed an interest and engagement with materialism, reality and the natural world.

> The language of Surrealism emphasized *objectivation*, *matérialisation* and the *concret* during this time, in tune with the broader materialist discourse of French philosophy and politics of the 1930s. The transformation that Surrealist theory underwent by way of this rhetoric is matched in the shift in its art from the distance and visuality of painting to the tactility and intrusion into one's physical space characteristic of the object. This was undoubtedly the outcome of Surrealism's traversal of the passage from idealism to dialectical materialism; its shift from what Breton called in 1934 'a purely *intuitive* epoch' (1919-25) to 'a reasoning epoch' (1925-).[15]

While the inception of Bretonian Surrealism may have been born rooted in metaphysicality, Parkinson demonstrates a sea change, acknowledged by Breton himself in June 1934 in Brussels.[16] Ten years after its founding, there had been enough time to give Breton an objective perspective on the movement and how it had metamorphosed. While others like Goll had always tried to evoke the materialist, empirical and concrete essence of Surrealism, Breton's arrière-garde position eventually changed.

In another part of this lecture, Breton discusses how the evolution took hold and how he anchored the shift. He speaks on the scientific elements found within recent events, indicating his own change from the metaphysical to what is real and concrete within the classic hard sciences. Parkinson quotes Breton again,

---

vol. 1, ed. Michael Richardson (London: Bloomsbury, 2019), 541. In the original Greek mythology, Tiresias was a blind prophet of Apollo, which highlights a main figure without ocular vision in the service of arts and poetry.

[15] Gavin Parkinson, *Surrealism, Art, and Modern Science: Relativity, Quantum Mechanics, Epistemology* (London: Yale University Press, 2008), 67. [Quoting André Breton, "What is Surrealism?" *What is Surrealism? Selected Writings*, ed. Franklin Rosemont (London: Pluto, 1978), 116.]

[16] Issued in a pamphlet as well, with a later English translation that appeared in 1936.

> 'Let us remember that three great scientific discoveries (evolution, the cell and the transformation of energy) permitted the edification of the dialectical materialist system of nature, and correlatively aided the understanding of the general laws of the development of society. I regard the consideration of current scientific developments to be more worthwhile than those of the psychological movement, which always lags behind the former.'[17]

This was not scientific posturing on Breton's part. He and many others within different Surrealist circles had been trained in the life sciences and therefore understood the implications of these findings. This next section will present a sketch of Breton's and a few other Surrealists' relationship to scientific knowledge.

During the war, Breton was a medical orderly, and his medical studies kept him out of the trenches. This, plus a prior interest in "psychiatric diseases," led him to work in the psychiatric ward of La Pitié under the neurologist Joseph Babinski (1857-1932).[18] Here he began to read summarised translations of Sigmund Freud's early work – which was not fully translated into French until 1920 by the Swiss psychologist Edouard Claparède (1873-1940).[19] However, there are caveats with this translation.

> If we examine the Claparède edition, we can see that the translator sometimes took great liberties with Freud's original text – and this is a common feature of these early translations. From 1922 on, several publishers brought out other translations, carried out by different translators [...]. It is worth pointing out that, from 1920 to 1927, none of these translations was carried out by practising psychoanalysts.[20]

Breton claimed that Freud had a strong influence on his own work, stating in his first manifesto that when writing his 1920 work with Soupault, *Magnetic Fields*, "Completely occupied as I still was with Freud at that time, I was [familiar] with his methods of examination which I had had some slight occasion to use on some patients during the war."[21] There would also be a later reference to Babinski in *Nadja*.[22] Aside from the deontological issues that arise, where he employed Freudian techniques on patients without having read any actual Freud himself, he also exaggerates his familiarity with the Father of Psychoanalysis.[23] He would claim that Freud's focus on the subconscious and dreams was an integral part of the Surrealist movement.

---

[17] Parkinson, *Surrealism, Art and Modern Science*, 92. [Quoting Breton, "What is Surrealism?," 147.]

[18] Joost Haan, Peter J. Koehler, and Julien Bogousslavsky, "Neurology and Surrealism: André Breton and Joseph Babinski," *Brain* 135 (2012): 3830.

[19] Jean-Michel Quinodoz, "How translations of Freud's writings have influenced French psychoanalytic thinking," *The International Journal of Psychoanalysis* 91, no. 4, (2010): 696.

[20] Quinodoz, "How translations of Freud's writings," 696-697.

[21] André Breton, "Manifesto of Surrealism (1924)," *Manifestos of Surrealism.* trans. Richard Seaver and Helen R. Lane (Ann Arbor: University of Michigan Press 1969), 22.

[22] Haan, Koehler, and Bogousslavsky, "Neurology and Surrealism," 3834.

[23] Though perhaps under supervision.

However, Breton, via Babinski, also had a connection to neurologist and specialist in hypnosis and hysteria, Jean-Martin Charcot (1825-1893) and "read with passion the neurological and psychiatric treatises of […] Emil Kraepelin, Emmanuel Régis, Valentin Magnan, Gilbert Ballet […] among others."[24] The issue is that Breton, who did not know German, only read translated summaries of Freud, which allowed for a shallow understanding of the theory.[25] Breton only knew a version of Freud's work that had been filtered through the translator-summariser's lens. Benjamin Fondane (1898-1944) aptly reproached this aspect of Surrealism "for traveling through dreams and the unconscious with Freud's work as a Baedeker."[26]

Breton was being provocative. Given the strong anti-German sentiment in France after the war, promoting a Teutonic doctor's theories was a symbol of rebellion, and such strong adhesion to novel psychoanalytical research was mannered pretention. Despite reading work by other French researchers, he nonetheless only cited Freud as influential to the Surrealist movement. Parkinson states that Breton would later signal a change, speaking in an interview in 1935 of "the high value that he placed in modern physics even more than in the findings of Freud."[27] This shift displays a metamorphosis and aligns with his earlier lecture in Belgium. The nuances and evolutions that occur within major movements are not always preserved within the canon of art history, so Breton's display of flagging enthusiasm for both the metaphysical and Freud is noteworthy.[28]

Surrealism and science have existed alongside each other since the movement's inception. Many Surrealists had engaged with medicine or science. Hence, it is no surprise that this underlying knowledge permeated Surrealist works. As Morrisson discusses, Henri Bergson's colleague (1859-1941), Alexander Koyré (1892-1964) "played an instrumental role in Parisian Surrealism's engagement with science in the 1920s and 1930s, beginning a vivid and influential seminar at the École pratique des hautes études in 1926, which was then carried on by his friend Alexandre Kojève."[29] Kojève (1902-1968) would go on to reintroduce the ideas of Georg Wilhelm Friedrich Hegel (1770-1831) in France, and his seminars were attended by Bataille, Jacques Lacan (1901-1981) and Maurice Merleau-Ponty (1908-1961).[30] These seminars would lead to discussions anchored in the philosophy of science but angled toward quantum physics.

---

[24] Haan, Koehler, and Bogousslavsky, "Neurology and Surrealism," 3831.
[25] Haan, Koehler, and Bogousslavsky, "Neurology and Surrealism," 3832.
[26] Peter Christensen, "Benjamin Fondane's 'Scenarii intournables.'" in *Dada and Surrealist Film*, ed. Rudolf E. Kuenzli, (Cambridge, MA: MIT Press, 2001), 73. "Baedeker" is an eponym for a travel guidebook, popularised in nineteenth century tourism.
[27] Parkinson, *Surrealism, Art and Modern Science*, 201.
[28] Quinodoz, "How translations of Freud's writings," 698. Perhaps he had finally read his actual work in translation, which had been published entirely in French by 1938, save four of his works.

Later, the College of Sociology organised seminars, where between 1933 and 1939, many of the aforementioned names – as well as Walter Benjamin (1892-1940), Roger Caillois (1913-1978) and Michel Leiris (1901-1990) – would meet on various topics.[31] "Most of those involved with the College of Sociology, including Bataille, had been close to Surrealism, and their respective interpretations of sociology, ethnology, German philosophy, Marxism, psychoanalysis, biology and modern physics were frequently mediated by the intellectual authority enjoyed by Surrealism at that time."[32] This draws only a few of many lines between scientific inquiry and the movement, demonstrating an interest in connecting with the discoveries and new theories being established at that time.[33] Others who possessed formal, scientific and medical university education include Painlevé and Jacques-André Boiffard (1902-1961). Pierre Mabille (1904-1952), who joined the Surrealist movement in 1934, was a medical practitioner and even delivered Breton's daughter.[34]

> [His] single most famous text, on [Victor] Brauner's loss of an eye the previous year, was to hand, giving a 'scientific' interpretation of the artist's accident, which the Surrealists believed was predicted in several of his canvases of the preceding years. Against the background of Breton's own study of precognition or *hazard objectif* in his book *Mad Love*, Mabille conjectures that it might be possible to free oneself from the restrictions imposed by the five senses, and 'rise beyond visual Euclidian dimensions.'[35]

Amongst the earliest members of the Surrealist group who had been medical students, many of them were able to exercise their knowledge when war broke out, like Breton, Aragon and Fraenkel. However, many disengaged from their training after the war. "It is striking that Louis Aragon, one of the three musketeers of early Surrealism with Breton and Philippe Soupault, who was also a medical student, also decided to leave medicine at the same time."[36] Though their reason for leaving is unknown, disenchantment with the profession may have led these men to pursue other ongoing interests such as writing and publishing. They nevertheless retained their knowledge, which is reflected in many offhand references to scientific discoveries. This display of engagement with both Surrealist principles while remaining anchored in empiricism reveals the elasticity of the Surrealist movement.

---

[29] Mark S. Morrisson, *Modernism, Science, and Technology* (London: Bloomsbury Academic, 2016), 18.
[30] Morrisson, *Modernism, Science and Technology,* 18. See also, Caroline Williams, "Philosophy and Psychoanalysis: Lacan, Kojève and Hyppolite on the Concept of the Subject," *Parallax (Leeds, England)* 3, no. 1 (1997): 41-53; Boris Belay, "That Obscure Parallel to the Dialectic: Tangled Lines Between Bataille and Kojève," *Parallax (Leeds, England)* 3, no. 1 (1997): 55-69.
[31] Parkinson, *Surrealism, Art and Modern Science*, 117, 122. See also, Simonetta Falasca-Zamponi, "A Left Sacred or a Sacred Left? The 'Collège De Sociologie,' Fascism, and Political Culture in Interwar France," *South Central Review* 23, no. 1 (2006): 40-54.
[32] Parkinson, *Surrealism, Art and Modern Science,* 117.
[33] Morrisson, *Modernism, Science and Technology*, 29.
[34] Parkinson, *Surrealism, Art and Modern Science*, 111; Mark Polizzotti, *Revolution of the Mind: The Life of André Breton* (Boston: Black Widow Press, 2009), 385.
[35] Parkinson, *Surrealism, Art and Modern Science,* 114. See also, Pierre Mabille, "L'Œil du peintre," *Minotaure* 12/13 (May 12, 1939): 53-56.

Myriad instances point to the Surrealists' engagement with the study of the natural world and the human body. "Modernism is, then, characterized by the desire to *intervene* in the body; to render it part of modernity by techniques which may be biological, mechanical or behavioural."[37] Armstrong goes into great depth regarding this, and though his focus covers all of Modernism and is largely literary in scope, his descriptions of the meeting of technology and the human body in the interbellum point to the influential effect of these phenomena on western culture.

Within the reconciliation of members of the avant-garde's interest in science, much has been said about physics, technology and geometry as it relates to the movement. This era was indeed rife with interests and overlapping between science and culture, with the members of the Surrealist movement displaying intense interest in this realm. As Dalrymple Henderson states, referring to a 1942 text "La Pétrification du temps," "[Óscar] Domínguez's writings on the fourth dimension may have been the most scientific of any of the Surrealists."[38] It is indicative of a masterful understanding of concepts relating to Relativity physics. The fourth dimension was the subject of a 1937 Painlevé film, and Óscar Domínguez's (1906-1957) work also relates to Man Ray's photographic series of mathematical models.[39]

---

[36] Haan, Koehler, and Bogousslavsky, "Neurology and Surrealism," 3835.

[37] Armstrong, *Modernism, Technology and the Body,* 6.

[38] Linda Dalrymple Henderson, "The Fourth Dimension and Non-Euclidean Geometry in Modern Art: Conclusion." *Leonardo* 17, no. 3 (1984): 208.

[39] For more information on Domínguez's work, see Abigail Susik, "Óscar Domínguez: autonomy and autoeroticism," in *Surrealist Sabotage and the War on Work* (Manchester: Manchester University Press, 2021), chap. 3.

The meeting of nature-inspired Surrealist work and innovation resulted in the use of new techniques in painting, film, photography and more. The relationship between the science and the art is obvious; Morrisson quotes Whitworth who states, "'Scientific research into matter in the period 1880 to 1930 began with a world that was so minute as to be invisible, and ended with one so strange as to be unvisualizable.'"[40] Consequently, I argue that while some Surrealists pursued metaphysics – going beyond what is within the realm of perception – others followed a different avenue of confronting the "unvisualisable" by turning to animals without vision as their primary mode of perception in order to navigate the new world around them.

In interwar Britain, scientists published for wider audiences and were successful in communicating their ideas to non-specialists. "Publishers of books and mass-circulation periodicals, including newspapers, reached out to those who wished to engage in home study or evening classes. And scientists such as Julian Huxley, J.B.S. Haldane, Frederick Soddy, James Jeans, Arthur Eddington, and Sir Oliver Lodge published several books that reached literary figures and educated intelligentsia."[41] The exoteric nature of these popular science publications allowed for a wider engagement with these important scientific breakthroughs, bringing them to people sitting comfortably in their armchairs and explained in accessible language. In England and France, many of those associated with modernism and the avant-garde – including the Surrealists – read these popular science journals.

This is best seen in the formatting of Breton's *La Révolution surréaliste* (1924-1929), which mimicked the layout of the popular science publication *La Nature* (1873-), "to clarify that this was not an *art* magazine."[42] As Endt confirms, Breton had a connection to scientific publications and "collected natural history museum journals, such as *Natural History*, the journal of the American Museum of Natural History in New York and *Le Musée vivant*, published by the Association populaire des amis des musées, which, since it was associated with Paul Rivet and the Musée de l'Homme in Paris, mostly featured articles on anthropological and ethnographical themes, but also covered the odd natural history-related topic."[43] This displayed the group's sense of "'irony […] but also a desire, as in hard-science periodicals, to offer proofs: Surrealism exists.'"[44] Following in the footsteps of what they saw as a serious project with long-term ambitions, they sought erudition to establish themselves. "Pierre Naville, who with Bernard Péret was the initial editor, deliberately sought to emulate a scientific journal, thus conceding nothing to 'the pleasure of the eyes.'"[45] Naville (1904-1993) was also Painlevé's cousin.[46] The meeting of science and the avant-garde creative minds of Surrealism continued,

---

[40] Morrisson, *Modernism, Science and Technology*, 38. [Quoting Michael Whitworth, "Physics," *A Concise Companion to Modernism*, ed. David Bradshaw (Oxford: Blackwell, 2003), 206.]
[41] Morrisson, *Modernism, Science and Technology*, 29.
[42] Polizzotti, *Revolution of the Mind*, 201; Rosalind Krauss, "Photography in the Service of Surrealism." *L'Amour Fou: Photography & Surrealism*, ed. Jane Livingston and Rosalind Krauss (New York: Abbeville Press, 1985), Hayward Gallery, Exhibition catalogue, 19.

> but one technology in particular has been especially crucial to that confluence of science and art: photography. More than three decades ago art historian David Green argued that the photograph achieved an important position in the emerging sciences of the later nineteenth century because of 'its apparent consistence with the empiricist assumptions and methodological procedures of naturalism.' Photography, understood as a passive process for recording external reality, made it a significant tool of scientific inquiry. Yet more important, Green argued, was 'the assertion of a seamless relationship between the photographic image and appearances whereby, under certain conditions, the image could function as reality itself.'[47]

This would be seen again in Bazin's appreciation of film mediums, discussed in the next chapter. Embraced fully by Surrealists as a medium, the inherently scientific aspect of photography in its documentary, artistic, journalistic, administrative or any other form made photographers into laboratory technicians. From the emulsions on both the film and the prints to the different baths, the successive chemical reactions which took place and even experimenting with different variables was a scientific experiment. Using techniques including solarisation and brulage in addition to optical effects, Surrealist photography employed technological, chemical and physical experimentation, but would use the medium against itself to excavate a truth below the surface, displaying the obverse of naturalism.

Though typically relating more to chemistry, Morrisson, using Green to support his claim, points out the biology found within photography.

> 'Belief in the objectivity of the photographic process was the prerequisite to photography's eventual success, but this was also dependent upon a series of discursive and technical transformations which resulted from a

---

[43] Marion Endt, "Reopening the Cabinet of Curiosities: Nature and the Marvellous in Surrealism and Contemporary Art" (PhD diss., University of Manchester, 2008), 157.
[44] Polizzotti, *Revolution of the Mind*, 201-202.
[45] Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (Berkeley: University of California Press, 1993), 249n143.
[46] Brigitte Berg, "Contradictory Forces: Jean Painlevé, 1902-1989" in *Science is Fiction*, ed. Andy Masaki Bellows and Marina McDougall, trans. Jeanine Herman (San Francisco: Brico Press, 2000), 12.
[47] Morrisson, *Modernism, Science and Technology*, 142.

> unique conjuncture of the natural and social sciences.' The photographic evidence contributed to what Green calls a 'biologisation of history' visible in the photographs of the human body.[48]

This can be extended to Painlevé's documentary films, which provided evidence of bodies of marine animals in a similar fashion described above. His work documented the life and physiological processes of many different animals and scientific phenomena and – as discussed later – helped the scientific field adopt cinematography as a research tool.

The following examination of early twentieth century science and its relationship to Surrealism will explore the phenomenon of "New Biology." While this era is most known for discoveries made in physics, there were equally exciting advances in biology. As Juler stated, the "startling breadth of discovery enjoyed by biology in the years following the turn of the century encouraged many Modernists to view the subject as the paradigmatic science of the epoch and adopt a 'biocentric' attitude which privileged the life sciences and emphasized the centrality of nature in culture."[49] This adds another facet to the ongoing conversation on science and Surrealism. He goes on to explain its source, echoing the art historical origins of the Barbizon School and Romantic landscape painting, which came from,

> a growing disenchantment with the fruits of industrialisation and mechanisation – what one reviewer of the time described as humankind's psychological 'inability to deal with the machine' – had served to heighten hostility towards those forms of artistic Modernism, specifically geometric abstraction, that appeared to cravenly mimic mechanical imagery and therefore ignore the biological needs of humankind.[50]

There is a parallel between the "back to nature" reaction to the Industrial Revolution and wanting to turn to the natural world after the First World War, even if it was not as drastic. This aspect of Modernism has its roots in Enlightenment theory, with Jean-Jacques Rousseau's (1712-1778) mid-eighteenth-century promotion of connections to nature, which later inspired Romanticism. Though this had stronger sociological and political connotations than ecological, it was nevertheless used to promote ideals and to challenge a modern society that was becoming ever more destructive.[51] This resonated with the Modernist condition, which saw "this biologistic tendency as an antidote to the alienating, machinist aesthetic of contemporary abstraction."[52] Juler uses biocentrism to reunite various movements in Modernism – Art Nouveau, Constructivism, Expressionism, Primitivism and Surrealism – which "rejected anthropomorphism and […] privileged the life sciences as an epistemological model and highlighted the ides of existential fluidity in nature."[53] He makes the connection between this and the Great War's responsibility for creating "anti-mechanistic sentiment and encouraging the appearance of a neo-romantic nature philosophy."[54] Juler's argument here supports my own to demonstrate Surrealism's quest to challenge anthropocentrism, a phenomenon which Breton himself described as "a regrettable facile way of thinking."[55]

---

[48] Morrisson, *Modernism, Science and Technology*, 142-143.

[49] Edward Juler, *Grown but Not Made: British Modernist Sculpture and the New Biology* (Manchester: Manchester University Press, 2016), 2.

[50] Juler, *Grown but Not Made*, 2-3. This oscillation between the mechanical and biomorphic in Western European art made several rounds between the two extremes over the following decades with Jugendstil/Art nouveau and Art deco or Post-Impressionism versus Vorticism in Britain as well as Futurism.

[51] Christopher Bertram, "Jean Jacques Rousseau," *The Stanford Encyclopedia of Philosophy* (Winter 2020 Edition), ed. Edward N. Zalta, https://plato.stanford.edu/archives/win2020/entries/rousseau/.

The crux of Juler's argument is that there was an influence of "New Biology," a phenomenon that spread throughout Europe and North America, defined as representing "an array of neo-idealistic scientific perspectives – including such movements as neo-Lamarckism and neo-vitalism – which variously sought to question the legitimacy of the predominant mechanistic and positivistic scientific attitudes of the period."[56] He cites this advent as having been catalysed by an integrative approach to physiology, in which entire systems were seen as dynamically interactive and collaborative, as opposed to functioning individually on a cellular level.

There was also an aesthetic trend in which "decorative micrography – a genre of art photography which delighted in artful images of microscopic forms, rendered pictorially but in a way that was wilfully respectful of scientific fact" became popular.[57] This recalls autodidactic German photographer Karl Blossfeldt's (1865 – 1932) work, which catalogued plant species, most notably in *Urformen der Kunst*.[58] This volume was published in 1929 and was partially reproduced in *Documents* that year alongside Bataille's text "The Language of Flowers," discussed in the following chapter. Juler names several other notable figures who contributed to the publication of popular science works "which went on to sell in the tens of thousands" including philosopher and mathematician Alfred North Whitehead (1861-1947), evolutionary biologist Julian Huxley (1887-1975), physiologist John Scott Haldane (1892-1964) and experimental embryologist Joseph Needham (1900-1995).[59] He also attributes newspapers covering topics about the future of science, such as test-tube babies, increased lifespans and the work of G. P. Wells (1901-1985), zoologist and son of H. G. Wells (1866-1946). Lastly, he names Huxley's *The Science of Life* as having contributed to the general knowledge of science and "tackled the findings of New Biology."[60] Though Juler's discussion touches on Modernist British sculpture, his historical contextualisation indicates an ongoing trend following the war.

---

[52] Juler, *Grown but Not Made*, 3.
[53] Juler, *Grown but Not Made*, 4.
[54] Juler, *Grown but Not Made*, 4.
[55] Breton, "Prolegomena to a Third Surrealist Manifesto or Not (1942)," *Manifestos of Surrealism,* trans. Richard Seaver and Helen R. Lane (Ann Arbor: University of Michigan Press 1969), 292.
[56] Juler, *Grown but Not Made*, 4-5, 14.
[57] Juler, *Grown but Not Made*, 8.
[58] "Karl Blossfeldt at the Whitechapel Gallery," Aperture Foundation, accessed June 9, 2021. https://aperture.org/editorial/karl-blossfeldt-at-the-whitechapel-gallery/.

Juler relates the movements within Modernism to concurrent advances in the biological sciences. "Even as the new sculpture was busy incorporating aspects of synthetic Cubism, Primitivism and Surrealism into its stylistic repertoire, the New Biology was effecting a synthesis between the hitherto separate areas of embryology, cytology, genetics and biochemistry, producing the basis for a unified theory of living systems within a pioneering holistic disciplinary framework."[61] Most biomorphic art is abstract, which implies the represented subject, whereas the works in this thesis are figurative or documentary, referring to the creatures themselves. I locate my own inquiry in Juler's important insight, research and analysis to allow for the historical understanding of this interest in the natural world.

Within "New Biology," there have been discoveries in cell theory, germ theory and the neuron doctrine.[62] This relates to the sheer necessity of innovations to cope with the carnage of the war.

> Of course, military medicine in 1914–18 benefited from the medical advances of the nineteenth century, as well as from the genuine therapeutic breakthroughs that occurred as a direct consequence of the need to deal with the new injuries of 1914. Better evacuation systems and medical infrastructures; the possibility of having antiseptic surgery using anaesthetics on the battlefield; the removal of damaged tissues when treating fractures, limiting the risk of gangrene and reducing the number of amputations; the X-ray detection of projectiles embedded in the flesh; facial plastic surgery; vaccination against typhus and tetanus; and blood transfusions – all these were therapeutic capabilities that had no equivalent in earlier conflicts.[63]

---

[59] Juler, *Grown but Not Made,* 14.

[60] Juler, *Grown but Not Made,* 14; Peter J. Bowler, *Science for All: The Popularization of Science in Early Twentieth-Century Britain* (Chicago: The Chicago University Press, 2009), 33.

[61] Juler, *Grown but Not Made,* 9.

[62] Morrisson *Modernism, Science and Technology*, 8.

[63] Audoin-Rouzeau and Becker, *14–18*, 24-25.

This catapulted civilian society forward, which – while far away from the frontlines – also saw these technologies practically at the same time as those fighting. These advances redefined conceptions of the body in the post-war era. These notions of corporeality were reflected in works such as Otto Dix's (1891-1969) proto-cyborg soldiers in everyday scenes of leisure showing the juxtaposition of "normal" life with the atrocities of war left hanging in the air. (Fig. 0.1) His figures' crude prostheses, grotesque wounds and casual demeanour were commentaries on how the western world had changed its relationship with corporeality. Hans Bellmer (1902-1975), whose counter-treatment of the body "to master it" resulted in fragmented and degenerate bodies which sometimes approached the non-human.[64] "The Great War was also a prosthetic war in the sense of attempting to radically extend human capabilities, wither in terms of perception […] or performance."[65] This was especially seen in the way in which human capacities were extrapolated to go beyond itself to defeat the enemy. After the Armistice, society was left with these innovations to navigate a post-war world with no indications of how to proceed.

---

[64] Hal Foster, *Compulsive Beauty* (Cambridge, MA: MIT Press, 1993), 109.
[65] Armstrong, *Modernism, Technology and the Body,* 95.

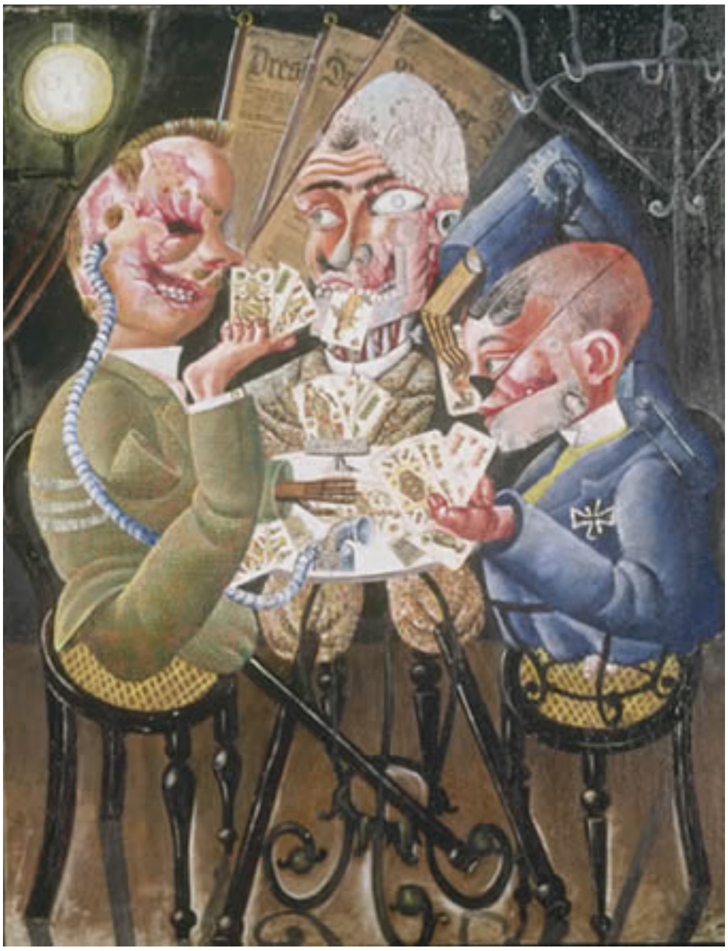


Fig. 0.1, Otto Dix, *Skat Players*, 1919, oil on canvas with photomontage and collage, 110 x 87 cm, Staatlichte Museen

Those on the front witnessed violence as well as innovations, many of which had been developed for the purposes of warfare. Consequently, some who had experienced the worst of humanity fighting in a violent war would go on to create Surrealist works. Moreover, "the war had devastated a whole generation of French scientists (an estimated forty percent of Sorbonne students who went to fight were killed or wounded)."[66] Many of the future Surrealists experienced great losses amongst their peers. This devastated the intellectual population in what was nicknamed "The Chemists' War" due to the amount of scientific innovation employed.[67] This was best exemplified in gas warfare, which made the air unbreathable – chlorine gas would cause those who inhaled it to essentially drown.[68] "A few weeks after the Germans first used poison gas in Ypres, on April 22, 1915, a London newswire described the details of the attack and the immediate effects on the soldiers, concluding: 'It is without doubt the most awful form of scientific torture.'"[69]

---

[66] Parkinson, *Surrealism, Art and Modern Science*, 38.
[67] Morrisson *Modernism, Science and Technology*, 8.
[68] A.P. Padley, "Gas: The Greatest Terror of the Great War" *Anaesthesia and Intensive Care* 44, no. 1 supplement (July 2016): 25.

Sensorial Modes and Violence in the Great War

World War I catalysed change in the west; "four empires had collapsed, and the old aristocracies had lost much of their privilege."[70] This would go on to mark interwar Europe which had become a place rife with extreme energies, colouring daily life with its effects lasting until the dawn of the Second World War. The following section discusses the effect of the Great War on individual bodies as well as on western civilisation. I look first at the large-scale shifts in society and the technologies that emerged and second at its impact on human senses, to structurally introduce the consequences of this event on European society and Surrealism. Modes of perception affected by the war reflect the greater violence and trauma sustained and would be translated by Surrealists into their work. The understanding of the bearing this had facilitates the discussion in the section that follows, which closes the introduction and presents the paradigmatic structures these artists sought to subvert during this time.

The First World War was a war of many firsts: the first inter-connected global conflict; the first war to use airplanes extensively, first to use poison gas in chemical warfare, the first time that submarines played a significant role and much more.[71] "Heavy artillery, machine guns, tanks, motorized transport vehicles, high explosives, chemical weapons, airplanes, field radios and telephones, aerial reconnaissance cameras, and rapidly advancing medical technology and science were just a few of the areas that reshaped twentieth century warfare."[72] Societal and governmental investments pushed along innovation at a rapid pace. "It was the first modern mechanized industrial war in which material resources and manufacturing capability were as consequential as the skill of the troops on the battlefield."[73] These changes combined with massive loss of life led to social upheaval and economic instability for the countries involved, paving the way for people to examine the world from different angles.

---

[69] "Military Technology in World War I | Library of Congress," Library of Congress, accessed January 18, 2021. https://www.loc.gov/collections/world-war-i-rotogravures/articles-and-essays/military-technology-in-world-war-i/

[70] Morrisson, *Modernism, Science and Technology*, 1.

[71] Audoin-Rouzeau and Becker, *14–18,* 35. "Military Technology in World War I | Library of Congress;" "Voices of the First World War: The Submarine War | Imperial War Museum," Imperial War Museum, accessed July 13, 2021, https://www.iwm.org.uk/history/voices-of-the-first-world-war-the-submarine-war.

[72] "The Technology of World War I," Smithsonian Institute Air and Space Museum, accessed January 18, 2021, https://airandspace.si.edu/stories/editorial/240-artist-soldiers-technology.

[73] "The Technology of World War I," Smithsonian Institute | Air and Space Museum.

Many technologies built on existing inventions from the nineteenth century. When they needed improvement, as a way of gaining advantage over the enemy, or due to stalemates and standstills, innovations emerged. "World War I popularized the use of the machine gun—capable of bringing down row after row of soldiers from a distance on the battlefield. This weapon, along with barbed wire and shells, made movement across open land both difficult and dangerous."[74] It also changed the range of combat, with long-distance artillery becoming more accurate where violence and carnage were brought beyond the edge of the horizon. At this time there was the juxtaposition of this advanced technology that introduced the question of what it meant to have a body made of flesh amongst these machine guns, shellfire attacks and aerial assaults. "The violence of war inevitably takes us back to a history of the body. In war, bodies strike each other, suffer and inflict suffering."[75] There was now one step removed from combat that added in a certain kind of empty space, but also made the body more accessible than ever. Trench warfare originated even earlier than the other belligerent tactics. The "ancestor of modern trench warfare was the system of progressively extended trenches developed by the French military engineer Sébastien Le Prestre de Vauban for the attack of fortresses in the 17th century."[76] After, the American Civil War augured a major aspect of World War I, most notably seen at the Siege of Petersburg.[77] This battle "provides a snapshot of the birth of modern trench warfare, revealing significant developments in engineering and evolving military tactics and strategy due to advancements in technology."[78] Trench warfare would, fifty years later, become a defining aspect of the Great War.

---

[74] "Military Technology in World War I | Library of Congress."

[75] Audoin-Rouzeau and Becker, *14–18,* 15.

[76] *Encyclopaedia Britannica Online,* "Trench warfare," accessed April 26, 2021, https://www.britannica.com/topic/trench-warfare.

[77] Near Richmond, Virginia, the capital of the Confederate States of America.

[78] This was the last major event of that war and took place between June 1864 and April 1865. "Training for Trench Warfare | Petersburg National Battlefield | U. S. National Park Service," U. S. National Park Service, accessed April 1, 2021, https://www.nps.gov/articles/training-for-trench-warfare.htm. The same area as the battle in Petersburg would be used as a training ground for American troops before being sent overseas after the United States declared war in April 1917. Trenches by then had developed over the course of the Great War, and efforts were made to design exact replicas of the French system, so that the soldiers would be ready for the circumstances abroad.

The war's upheaval caused great shifts in seemingly immovable political, social and economic structures. The fabric of society had shifted, which opened and primed it for other changes in western culture. Morrisson confirms, "As literature and the arts were transforming and being transformed by this modernist sensibility, scientific and technological orthodoxies were similarly in flux in almost every field."[79] His assessment of the technological effects on the body underlines how much was in flux at this stage. "Scientific and technological developments began to seem increasingly difficult to separate: this was the age of the automobile, airplane, synthetic plastic, radio, film, neon sign, audio recording, [...] X-ray machine, cyclotron, [...] tissue culture and penicillin, but also of chemical warfare, machine guns, eugenics, […] and the electric chair."[80] This represented the brilliance as well as the horrors of technology, which would go on to be reflected in Surrealism.

Many of the accounts of life on the front – including those of Fraenkel – feature ocular as well as full-body sensorial descriptions, immersing the reader in the moment.[81] They depict constricted vision in the trenches in which nothing was visible except the great expansive sky up above. "One reaction was a compensatory exaltation of the aerial perspective of the flyer, those 'knights of the sky' able to rise above the confusion of the earth-bound – and often earth-bespattered – combatants."[82] For those who served on the frontlines, the First World War was an all-out technological assault on the human body. It was essential for each soldier to have all senses deployed and to remain sharp. As one soldier described it, "Trees chopped by shrapnel or uprooted by 'pots' [shells] indicate the dangerous area. The meowing of bullets confirms it for us."[83] Survival relied more on chance rather than individual agency. To adapt, however, the five senses metamorphosed into discrete consciousnesses where each could be used individually, here with the primacy of vision and the backup, hearing, to corroborate enemy fire. To trust one's senses required multiple data points because a crisis was underway. This next section is a discussion of these senses and the way each were affected individually as well as how they overlapped due to the war and its associated technologies.

---

[79] Morrisson, *Modernism, Science and Technology*, 7.
[80] Morrisson, 8.
[81] Desbois, "Vivement la guerre," 2, 5.
[82] Jay, *Downcast Eyes*, 213.
[83] Desbois, "Vivement la guerre," 4. (My translation.)

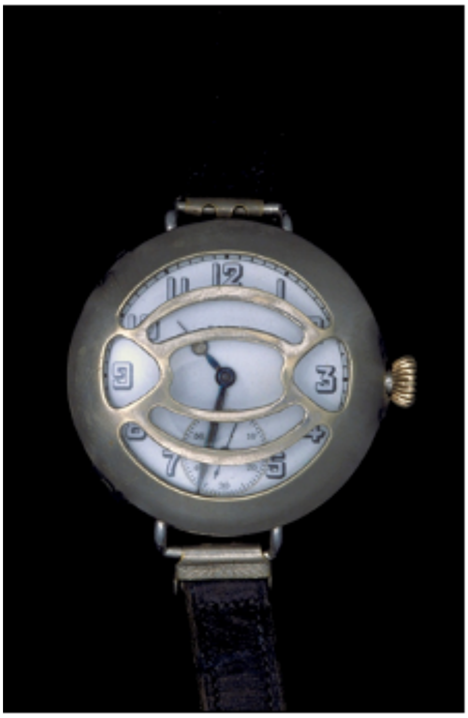
Though not one of the five senses, the perception of time greatly figures into the felt sensations of the era. The sense of the rapidity of the war's onset was experienced by all; suddenly nearly an entire continent was thrust into conflict, and loss began almost immediately.

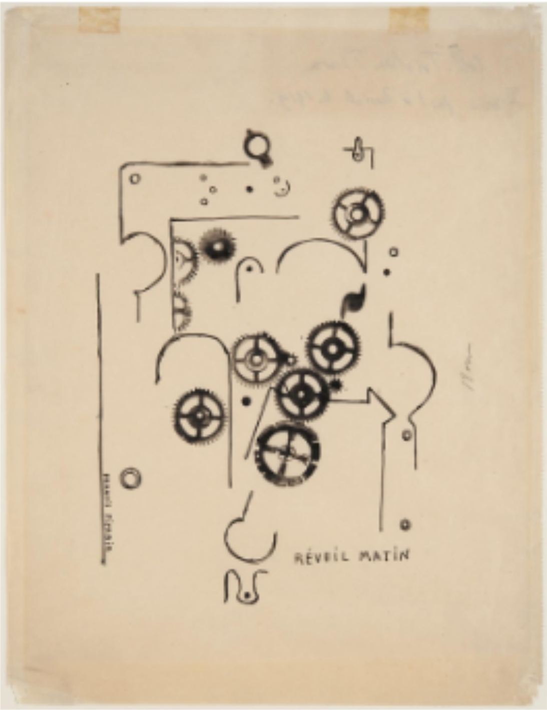
> Although the French initially suffered some rapid defeats, they also fielded an army with unprecedented speed. For the first engagements in August about 2,000,000 Frenchmen were deployed in 4,278 trains, and only nineteen ran late. Although once in the trenches the men frequently perceived the war as a protracted and monotonous struggle, the actual fighting was far faster than anything in history, revolutionized by the widespread use of magazine loading rifles, rapid fire artillery guns, and—that symbol of speedy killing—machine guns […]. On July 1, the first day of the battle of the Somme, the British took about 60,000 casualties, of whom 21,000 were killed. John Keegan has speculated that most of them were killed in the first hour of the attack, perhaps even in the first minutes. The war set some gruesome speed records.[84]

Wristwatches had become standard issue for soldiers; any offensive manoeuvre required precise synchronisation.[85] (Fig. 0.2) Standardised time became an "overwhelming force of mass movements that regimented the lives of millions of men by the public time of clocks and wrist watches, synchronized to maximize the effectiveness of bombardments and offensives."[86] These concepts were completely new and those affected adapted to yet another new aspect of modernity. "For Europeans, the beginning of the war was rapid and unexpected, and its speed was a determining factor in the way the groundwork was laid for support of the war."[87] The sensation of the fast onset gave no one time to adjust, and this loss of agency alongside the subsequent decades of mourning after the war would go on to cause resentment. It was a source of frustration that the Dada movement first channelled into their work – most literally in works like Picabia's *Réveil matin* (Fig. 0.3) – and which later the Surrealists took to fuel their movement.

---

[84] Stephen Kern, *The Culture of Time and Space, 1880–1918* (Cambridge, MA: Harvard University Press, 1983), 299.
[85] Kern, *The Culture of Time and Space*, 288; "Changed Status of the Wrist Watch," *New York Times*, July 9, 1916, 68.
[86] Kern, 288.
[87] Audoin-Rouzeau and Becker, *14–18,* 94.





(Left) Fig. 0.2, Elgin Wristwatch (with shrapnel guard), 1917, Smithsonian Institute, National Museum of American History, Washington, DC
(Right) Fig. 0.3, Francis Picabia, *Réveil matin*, 1919, ink on paper, 31.8 x 23 cm, Tate, London

The sensation of time had been altered on the front; monotony and waiting between battles weighed heavily.[88] Some of the occupied areas experienced disorienting chronological variations as well. They initially shared an alignment with Greenwich and had only – at least in the case of France – recently adopted the standardisation of time, shifting everyone onto one clock. The 1912 International Conference on Time in Paris, "provided for a uniform method of determining and maintaining accurate time signals and transmitting them around the world."[89] Suddenly, and only two years afterward, the notion of time was upset once Germans began occupying different regions of France and Belgium. "Life was lived 'on German time,' with a one- or two-hour time difference, depending on the season."[90] This time change affected people's sense of chronology during the Great War. Being thrown into the future to be in the same time zone as Berlin communicated to these areas who was in control now: the German Empire.

---

[88] Kern, *Culture of Time and Space,* 289-290.
[89] Kern, 13.
[90] Audoin-Rouzeau and Becker, *14–18*, 57.

It is indisputable that there is a perceived passage of time. At a period when the Theory of Relativity was wildly popular and newspapers, journals and magazines were explaining the significance of Albert Einstein's (1879-1955) discovery to the general public, time – as a concept – presented itself as malleable. This, along with quantum theory, which noted variable and unfixed phenomena as a constant, introduced the concept of sensorial perception's fallibility.[91] "With the 1905 special theory of relativity, Einstein calculated how time in one reference system moving away at a constant velocity appears to slow down when viewed from another system at rest relative to it, and in his 1916 general theory of relativity, he extended the theory to include the time change of accelerated bodies."[92] Einstein's discoveries were widely diffused, introducing the concept of dilation and contraction of time – that it was not fixed and monolithic – bringing this theory to the forefront of many people's minds. The "sheer strangeness of time" was as related to the speed of modern-day scientific and technological development as it was to the Surrealist films which would follow suit.[93] Playing with time by the acceleration or deceleration of film, a typical Surrealist technique, contracted and expanded time. Cinema "modified the sense of the past."[94]

In Painlevé's films this is what allowed the observation of physiological processes, like the seahorse's heartbeat or childbirth, to be captured and projected at frame rates allowing the brain-eye mechanism to register what was being viewed. "[T]he Surrealists […] had recourse to popular writings such as those of Arthur Eddington, in which scientific rigor was combined with a more literary taste for the fantastic. Typical is Eddington's book *Space Time and Gravitation* of 1920, which contrasts the gross reality taken in by the senses with the subatomic of 'hidden' one uncovered by modern science."[95] The simplified account of Einsteinian theory features themes of micro- and macrocosmic scales and "traveling upwards vertically at 161,000 miles per second and then shrinking" in some sort of Carrollian wonderland that is echoed within Surrealist film.[96] Arthur Eddington's (1882-1944) discussion of optics, time and space indicates a general interest, equally permeating the cultural and scientific circles, with Einstein serving as a scientific "pop star," straddling both worlds. (Fig. 0.4) Both his book as well as Einstein's *Relativity: The Special and the General Theory* were translated into French in 1921, paving the way for Gallic knowledge of these topics, spreading them further within western culture.

---

[91] Parkinson, *Surrealism, Art and Modern Science*, 148.
[92] Kern, *Culture of Time and Space,* 19.
[93] Parkinson, *Surrealism, Art and Modern Science*, 16.
[94] Kern, *Culture of Time and Space,* 4.
[95] Parkinson, *Surrealism, Art and Modern Science*, 178.
[96] Parkinson, 178. The character does not realize the changes due to a contraction of the retina which cancels the shrunken body as well as the change in space due to the Fitzgerald-Lorentz contraction.

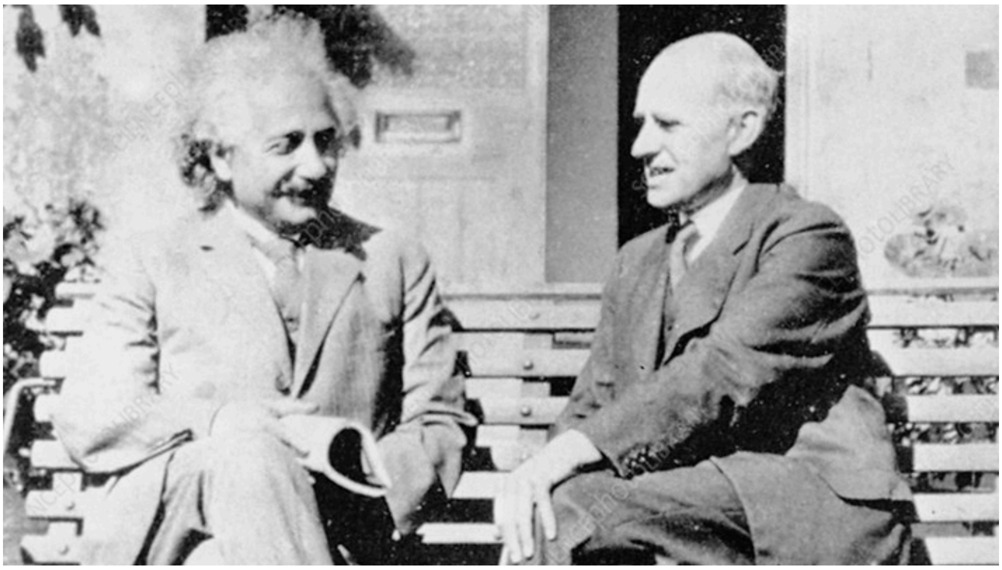


Fig. 0.4, Albert Einstein and Arthur Eddington photographed at the University of Cambridge Observatory, 1930

This spilled into many different facets of popular culture, both preceding and following Einstein's popular revelations, revealing interest in the concept of time before his breakthroughs. From James Joyce's *Ulysses* (1918-20, 1922) to Kafka's *The Trial* (1914-15), Marcel Proust's *Swann's Way* from *In Search of Lost Time* (1913) as well as Oscar Wilde's *Picture of Dorian Gray* (1890), time as it related to vision within the arts was addressed in myriad ways. In Proust's work, "time was developed in specifically ocular terms."[97] Even Auguste Rodin (1840-1917) was preoccupied with the idea of art, time and the capacities of photography, saying in 1910, "It is the artist who is truthful, while the photograph is dishonest; for, in reality, time never stops cold."[98] Barthes brings up the opposition between photography and Proust, describing them as unrelated because "the photograph does not call up the past."[99] Perhaps not in the same way, but I argue that if the moment had been lived by the viewer initially, then looking at a scene provides a catalyst for internal time travel in which an introspective, reflective moment allows for chronological displacement via a reconstructed intangible past event in a phenomenon called episodic memory.[100]

---

[97] Jay, *Downcast Eyes*, 184.

[98] Auguste Rodin, *L'art / Auguste Rodin; entretiens réunis par Paul Gsell.* Paris: Bernard Grasset, 1911.. (My translation.) [Also referenced in Jay, *Downcast Eyes,* 311.]

[99] Roland Barthes, *Camera Lucida: Reflections on Photography*, trans. Richard Howard (New York: Hill and Wang, 1996), 82.

Kern presents that the "structure of history, the uninterrupted forward movement of clocks, the procession of days, seasons, and years, and simple common sense tell us that time is irreversible and moves forward at a steady rate. Yet these features of traditional time were also challenged as artists and intellectuals envisioned times that reversed themselves, moved at irregular rhythms, and even came to a dead stop."[101] He attributes this phenomenon to two elements: electric light and the cinema, the former blurring the division between day and night like never before and the latter creating halts, expansions, compressions and jumps in time with a few technological sleights of hand in the editing room.[102]

> An even more striking representation of time reversal was produced by running film backwards through the projector, first tried by Louis Lumière in *Charcuterie mécanique* (1895). One cinema critic described these amazing effects: boys fly out of water feet first and land on the diving board, firemen carry their victims back into a burning building, and eggs unscramble themselves. His account of a mass of broken glass ascending through space and reforming on a table into the perfect original suggests a Cubist decomposition in reverse.[103]

If this sounds familiar, Man Ray replicated similar imagery in his films, particularly *Les Mystères du château de dé* in 1929. The reference to Cubism speaks not only to its relationship to the Great War – nicknamed by Gertrude Stein as "Cubist" – and camouflage but also because, as discussed in the next chapter, Cubism's relation to the visual field's decomposition figures as a precursor of the examination of the Surrealist questioning of the primacy of vision.[104] Its consideration of the perception of time adds another layer of intrigue to this discussion due to Man Ray's use of reverse motion – most notably in the pool scene – which is also known as time-reversal.

Establishing a time-timeline would include Edison's lightbulb patent in 1880, Wilde's novel in 1890, the Lumière brothers' cinematograph in 1895, Bergson's *An Introduction to Metaphysics'* on time's fluid nature in 1903, Einstein's first theory of relativity in 1905, and more. They are interrelated, but also relatively drastically spread out geographically: America, England, France and Switzerland. This points to a cultural and intellectual communion of spatio-temporal elements that metamorphosed the concept of time from fixed to a conceptually flexible fabric. Kern speaks below and cites an Apollinarian poem which supports this.

---

[100] For more on episodic memory, see Endel Tulving, "Episodic Memory: From Mind to Brain," *Annual Review of Psychology* 53 (February 2002): 1-25.
[101] Kern, *Culture of Time and Space,* 29.
[102] Kern, 29.
[103] Kern, 30.
[104] Kern, 288.

> The shadows of victory and defeat fell every which way over what came to be known as a single battle, unified in historical consciousness like faceted forms of a Cubist landscape reflecting light from a multiplicity of sources. One of the most influential simultaneous poets of the prewar period, Apollinaire, applied his technique to the war itself. In a poem of 1917, *Merveille de la guerre,* he envisioned a sublime simultaneity of events emerging from the chaos.
>
> …
> I leave to the future the story of Guillaume Apollinaire
> Who was in the war and knew how to be everywhere
> In the happy cities behind the front
> In the whole rest of the universe
> In those who died trampling in barbed wire
> In the women in the canons in the horses
> From zenith to nadir to the 4 cardinal points
> …
> And without doubt it would be even more beautiful If I could suppose that all these things everywhere In which I am could also inhabit me But in this sense nothing can be done about it
> Because I am everywhere at this hour
> …[105]

Relating to perceived time is memory. Memorial ceremonies, monuments and other gestures which actively sought to remember the war were still commonplace throughout the 1920s and 1930s, making it impossible to forget. Given the Surrealists' general distaste for the war, Proust – the emblem of memory – was an easy target for contempt. Iampolski states, "the Surrealists' polemical rejection of Proust had something to do with their attitude to memory. The cultural symbolism they aimed to destroy had become lodged in cultural memorialization, which in turn became the logical object of their aesthetic violence. As Soupault proclaimed, 'Memory [*la mémoire*] should be replaced by recollections [*des souvenirs*] of the present.' Desnos even advocated the destruction of memory."[106] Time, and memory, expanded in the way that the war had been memorialised. The protracted process of endless public displays of mourning continued long after the eleventh hour of the eleventh day of the eleventh month of 1918, making the end of the war feel interminable.

---

[105] Kern, 294.

[106] M.B. Iampolski, "Intertext against Intertext: Buñuel and Dalí's *Un Chien andalou*." in *The Memory of Tiresias: Intertextuality and Film* (Berkeley: University of California Press, 1998), 176.

[The Ocular, Sensing and Violence]

During World War I no other sense was touched more than vision. As we move into the sense of sight, this section will engage in a discussion on the different ways that it was subject to the war's effects and the positive and negative impact it had on those fighting on land and sea and in the air. It is the sensory mode upon which humans have historically most relied and adaptation to its disruption is challenging and unnerving. Electricity's inherently invisible nature made many innovations invisible to the human eye. This would go on to have a direct effect on the experience of the war itself, with an imperceptible and ever-present power all around them.[107] Many of these technologies will be expanded upon in the discussion of the disruption of the hierarchies of the senses and how ocularcentrism was challenged as a result of the war in the final section of this introduction.

The vision of what the war looked like on the front lines was captured in different ways: photographs, war artists' works, vivid descriptions in letters and journals as well as even a few filmed images which were allowed during the first two years of the war.[108]

> At night, the line of fire is worth a look. In the Verdun sector, on August 19, 1916, between Fleury and Thiaumont, Lieutenant Jean Daguillon describes this feast for the eyes, reserved only for warriors: 'Every evening we now have the magical spectacle of several hundreds of cannons carrying out their barrages; few people certainly, among the performers of the orchestra, see what we see. The plain is dotted with lightning, and one would think we had a toy landscape in front of our eyes with cannons and miniature explosions; the powerful voice of the cannon, the telephone, the green and red rockets, are there to bring us back to reality.'[109]

This excerpt from Daguillon's published war accounts illustrates the daily visual and aural feast foisted upon soldiers whilst on the front. Many were barely adults and yet for good and for bad, they were living in an incredibly exciting time. "For the soldier who is still uninitiated and who awaits, with impatience or fear, his baptism by fire, the war does not present itself in too bad a light and, as a lure, deploys for it all its range of visual and sound prodigies."[110] There was a sense of novelty and surprise. There was also shock, as many imagined battlefields were based on painted scenes of military campaigns displayed in museums and reproduced in publications. This inability to reconcile modern warfare with how these soldiers had imagined the battlefield in their mind's eye created cognitive dissonance. This new twentieth century conflict would embody none of the glory of Alfred, Lord Tennyson's (!809-1892) "Charge of the Light Brigade" nor resemble the majestic paintings of Napoleon's victories in Egypt, Austerlitz or the Prussian village of Eylau; there were no wild charges on horseback, sword in hand. (Fig. 0.5) Indeed, the "old world was dying;" this was a combat the likes of which had never been seen before.[111]

---

[107] For a historicization of the Surrealist relationship to the advent of electrical light in opposition to its interest in the darkness, the nocturne and the unconsciousness, see Endt, "Reopening the Cabinet of Curiosities," 61-69.

[108] Desbois, "Vivement la guerre," 3.

[109] Desbois, 3-4. (My translation.)

[110] Desbois, 4. (My translation.)

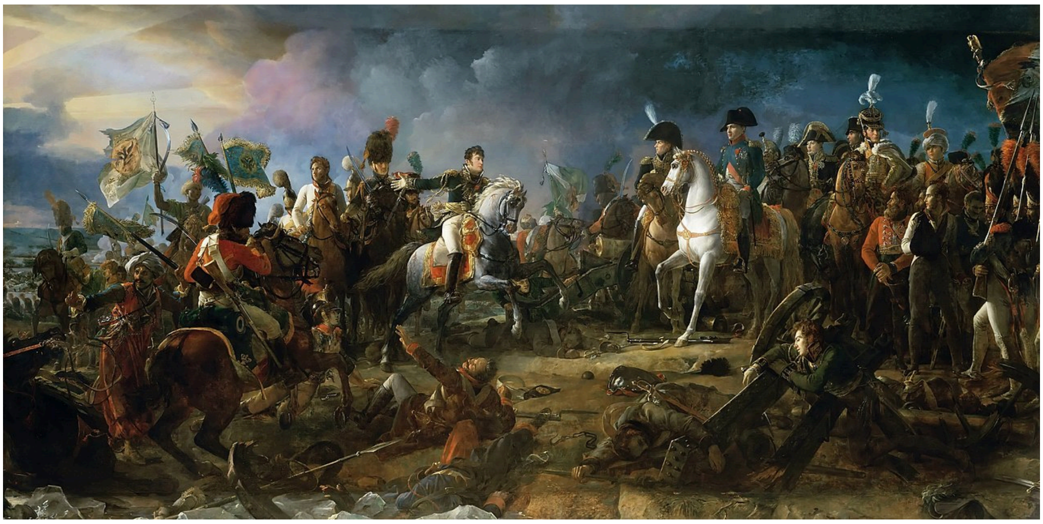


Fig. 0.5, François Gérard, *The Battle of Austerlitz, December 2, 1805*, 1810, oil on canvas, 510 x 958 cm, Musée national des châteaux de Versailles et de Trianon

During the war, there were incontrovertible acts against humanity. These horrors were documented by soldiers and medical workers, and word was sent back to be used as propaganda to garner support on the home front to justify the continuation of the war.

> The French case is a good example. The reports […] were the work of a committee investigating acts committed by the enemy in violation of human rights. The committee […] filed twelve reports between the end of 1914 and the beginning of 1919. The first of these, […] created a considerable stir. […] The introductory text was published in its entirety by virtually every French newspaper […], often on the front page: 'Plunder, rape, arson and murder are common practice among our enemies,' asserted the reporters. The text […] convinced the public not just that German atrocities had taken place but also that they were widespread and very grave.[112]

Audoin-Rouzeau and Becker recount the work of R.A. Reiss, professor of criminology who documented the violence committed by the Austro-Hungarian army in Serbia during the war. In addition to the genitosexual violence enacted against women, soldiers also carried out “facial mutilations, particularly of the eyes […] done to men and women […] Anthropologists of violence have long recorded that such attacks aim at people’s most human features, the face and reproductive organs.”[113] Reiss based these acts on “man’s animal instincts,” to explain the “etiology of violence” and to make sense of atrocities which were considered excessive, even during warfare.[114] These two aspects of the human body are what the anthropologists of violence claim to make us most human: the ability to make new humans and the ability to see/be seen. These violent acts both result in deanthropizing the victims and are excused (or dismissed) by others by deanthropizing the actors. This dual dehumanisation – academic as well as belligerent – demonstrates an innate connection to human vision and underlines its primacy. To destroy the face, including vision, is to destroy the person, thereby destroying their ability to be human.

---

[111] Campa, "Dans la nuit des éclairs," 20, 22. (My translation.) This text also includes a discussion of the use of the horse by avant-garde writers and artists who take "refuge in traditional imagery, nostalgia," reflected in the text of Breton's *Magnetic Fields* (1919), on the cover of Apollinaire's *Les Mamelles de Tirésias* by Serge Férat (1917) and on the stage with Picasso and *Parade* (1917).

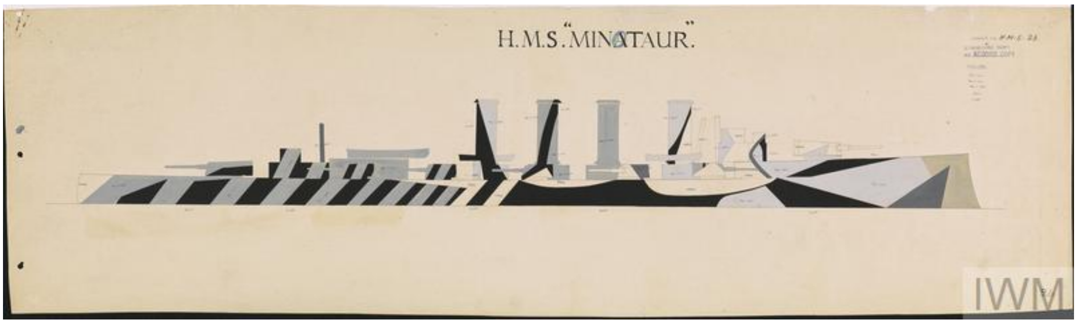
[112] Audoin-Rouzeau and Becker, *14–18,* 101.

This ocular attack links to how ocular violence was translated into Surrealist practice nearly a decade after the war’s end. Violence against these most human features is depicted in Surrealism, but the aspect of horror is removed dispassionately; the viewer is invited to look beyond the surface of the shocking image. Specifically in the ocular defilement that embodies myriad Surrealist works, sensations of pain or suffering are not included, almost as if those losing their eyes were unfeeling, dehumanised creatures. For what was the world’s first modern war, there were also great amounts of barbarity and “primitive archaism” that took place.[115] This idea will be seen again in Breton’s desire for a “primitive” eye and explored further with the Surrealist works featuring marine animals to demonstrate different modes of perception.

For those on the battlefield, the act of being seen became deadly. Previously, soldiers sported flashy uniforms meant to strike awe in their adversaries. “But with the extension of the range of accuracy from the one or two hundred yards of a musket to the two thousand yards of the breech-loading rifle and the increased fire power of sweeping lines of bullets from a machine gun blast, bright, colorful uniforms and tight, neat formations were suicidal.”[116] Neutral colours – shades which matched the natural world and the surrounding landscape – began to dominate the sartorial issue of various armies on both sides of the conflict, leading to the use of camouflage as a strategy in military campaigns. Inspired by the Cubist movement, a French telephonist thought of hiding an artillery gun under a net dyed to match the earthen landscape. He claimed, "'In order to totally deform objects, I employed the means Cubists used to represent them—later this permitted me, without giving reasons, to hire in my [camouflage] section some painters, who, because of their very special vision, had an aptitude for denaturing any kind of form whatsoever.'"[117] This phenomenon spread like wildfire with the British, the Germans and the French using it widely by the time the war had reached its midpoint. Surrealism and camouflage would continue in its connection in "Roland Penrose's 1941 *Home Guard Manual of Camouflage* [which] considers the importance of camouflage in an age of aerial photography, a technology that he considers 'a formidable adversary of concealment.'"[118] Considering the elements of perception that comprise a changed perception that ultimately results in "a different kind of vision which is simultaneously susceptible to a kind of blindness."[119] As will be seen in chapter two, Painlevé's film on the octopus features scenes depicting the ability of these creatures' cells to change colour to adapt to their surroundings. Shown on a microscopic level, their own camouflaging helps them to hunt and avoid predation. On British ships, Dazzle paint, geometric patterns with contrasting colours were painted onto the sides, disrupting the visual field from afar, and making the opponent unable to determine size and travel direction. (Figs. 0.6 & 0.7) Americans also used camouflage on their ships but based it on "natural protective coloring among animals" rather than the bright shades used by the British.[120] Using ocular technologies against the eye itself was another way to subvert its dominance.

---

[113] Audoin-Rouzeau and Becker, 47.
[114] Audoin-Rouzeau and Becker, 48.
[115] Audoin-Rouzeau and Becker, 59.
[116] Kern, *Culture of Time and Space,* 302.



---

[117] Kern, 303.

[118] Patricia Allmer, *Lee Miller: Photography, Surrealism, and Beyond* (Manchester: Manchester University Press, 2016), 145.

[119] Allmer, 145.

[120] Kern, *Culture of Time and Space,* 304.

Fig. 0.6, Schematic drawing for Dazzle camouflage, starboard view of Royal Navy armoured cruiser/converted minelayer HMS Minotaur, 1917, pencil and gouache on paper, 27.5 cm x 94.7 cm, Imperial War Museum, London

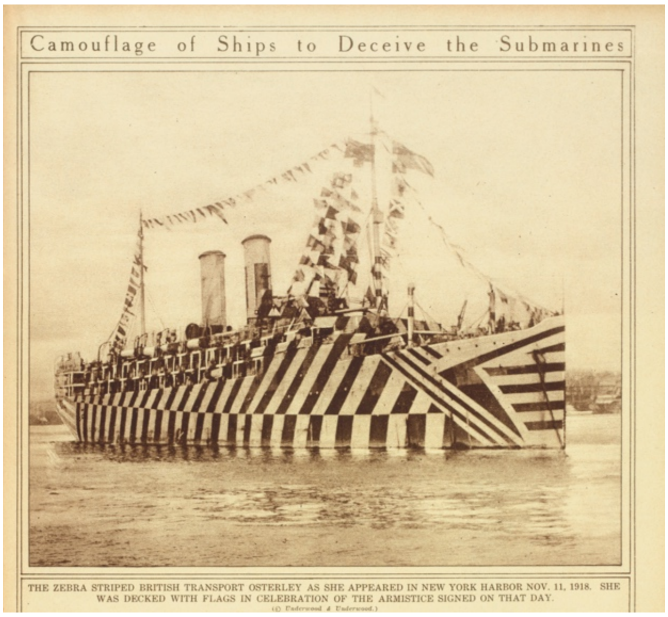

Camouflage of Ships to Deceive the Submarines
THE ZEBRA STRIPED BRITISH TRANSPORT OSTERLEY AS SHE APPEARED IN NEW YORK HARBOR NOV. 11, 1918. SHE WAS DECKED WITH FLAGS IN CELEBRATION OF THE ARMISTICE SIGNED ON THAT DAY.
(© Underwood & Underwood.)

Fig. 0.7, Camouflage of Ships to Deceive the Submarines
The Zebra Striped British Transport Osterley as She Appeared in New York Harbor Nov. 11, 1918. She was Decked with Flags in Celebration of the Armistice Signed on that Day.
Image 376 from *The War of the Nations : Portfolio in Rotogravure Etchings : Compiled from the Mid-Week Pictorial* (New York), 1919, Bequest John J. Pershing. Nov. 14, 1952. Library of Congress, Washington, DC.

Vision was also challenged by smoke which obfuscated the landscape and extended ranges for artillery guns and shellfire. Smoke screens took the forms of massive billowing grey, black or white walls of clouds, curtaining or framing fields of vision. One French ambulance driver described his shock to see how little the battlefield resembled the battlefields depicted in paintings. He recounts the inability to see beyond the framed landscape, as he paints his own scene, “imagine a huge panorama fifteen or twenty kilometres, at the ends of which rise large white or black smoke, while between them ... you see nothing.”[121] Whether in bunkers and trenches or above ground, sight was constantly at risk of being limited or removed altogether at a moment’s notice. Those on the front knew that they could not rely upon their eyes any longer because the clear line of sight could suddenly vanish into thin air.

---

[121] Desbois, “Vivement la guerre,” 3. (My translation.)

The war was an assault on the senses, with many instances on two, three or more at once. This next section will begin with the multi-sensorial nature of the war before moving on to discuss a few instances in which the other senses – outside of vision – were affected by the war. Fiery explosions blinded the eyes, deafened the ears and could even cause searing pain due to shrapnel. The frequent bombings of cities that began in 1917 added to the sensorial topography of the war, bringing civilians into the conflict. "Anti-aircraft guns, barrage balloons, observer posts, sound locators, searchlights, maroons (sound bombs), sirens, and two-way air-to-ground wireless equipment (developed in 1917) engaged the attention of civilian and military personnel alike."[122] This had an impact on everyone in these urban spaces, with technologies that affected – and at times expanded – vision and hearing which were employed as a form of strategic manoeuvring and reconnaissance.

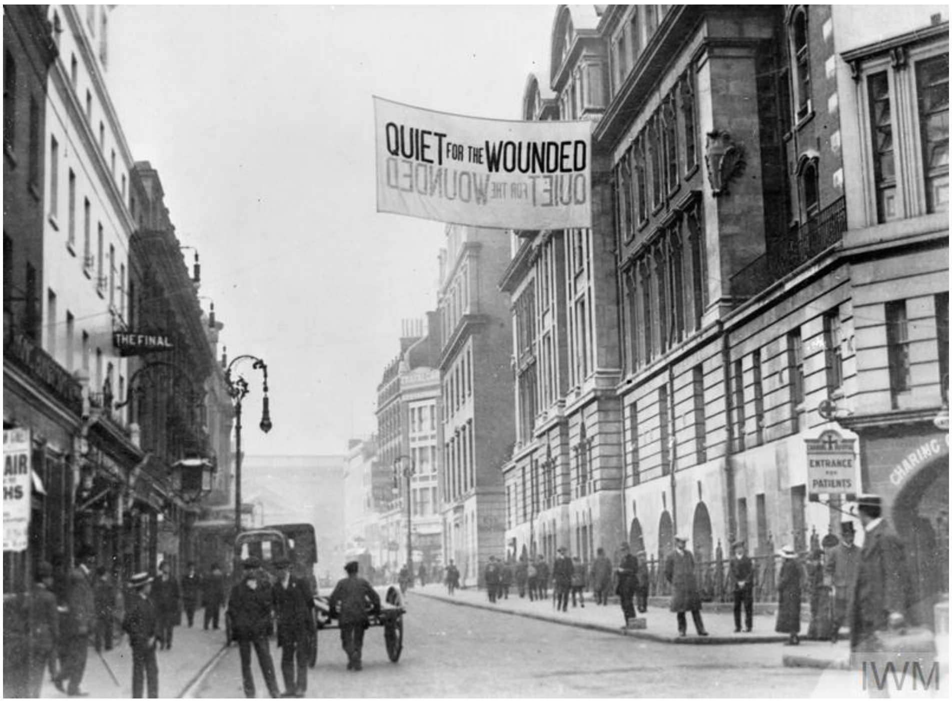


Fig. 0.8, Large banner reading 'Quiet for the Wounded' hanging outside of Charing Cross Hospital on Agar Street, London, September 1914. Heavy traffic had been diverted to minimize street noise, Imperial War Museum, London

In these urban areas the sounds of air raids screamed, and explosions roared. (Fig. 0.8) Sirens were as alarming as much as they served as alarms, warning those at risk to seek shelter but not before inducing a sense of panic. Incoming explosives were heard mid-air before causing any physical destruction. "Catastrophes were first perceived from their sounds: the noise of cannon, particularly, was heard almost constantly. Bombs and shells fell, and planes crashed right in the middle of cities and towns, killing civilians."[123] The sense of hearing was affected as much by the noises as the silence, due to the stalemate where long stretches of time would pass before suddenly springing into action. Moreover, there was the soldiers' omerta-like silence, who, after the war did not discuss it. "The silence kept by the veterans over their war years, with the exception of some amusing and superficial anecdotes, is sometimes justified by a required oath by the army, a kind of reserve obligation which would oblige them to keep quiet about what they saw and did in the war."[124] Though understandable, it essentially gagged those who fought. Anger at this forced muting links to the resentment felt by the Surrealists who sought to revolt against that which upheld these structures.

---

[122] Kern, *Culture of Time and Space,* 311.

The mix of sensorial stimuli was likely to have been highest between visual and aural. Accounts by those on the front describe the vision- and sound-filled spectacle, like a never-ending show with lights where a "thousand noises intersect: deaf, muffled, vibrating, dry, hissing."[125] German bullets whistled by and pierced a nearby tree with a dry slapping sound, "suddenly a dismal whistle tears the air. It gets louder as if it was getting closer. A tremendous noise behind our position ... Vraoum! The first German shell has just exploded nearby."[126] The bedlam was interminable at times with "the shards that buzz like an effervescent beehive."[127] The cacophonous environment for those on the front line was a constant source of stress and served as a confirmation of the imminent danger only a few hundred yards away. As opposed to the front, the space between enemy lines was a space entirely its own and felt markedly different. "No-man's-land […] was alternately a place of maddening noise and unnerving quiet. Telephone lines ran to the front and stopped: once there a soldier could be suddenly lost in silence."[128] Being in this space was to be in an existentially hostile territory, as one never knew if the quiet was indicative of impending mortality or just a lull in between all-out warfare.

---

[123] Audoin-Rouzeau and Becker, *14–18*, 58-59.
[124] Desbois, "Vivement la guerre," 3. (My translation.)
[125] Desbois, 4. (My translation.)
[126] Desbois, 4. (My translation.)
[127] Desbois, 5. (My translation.)
[128] Kern, *Culture of Time and Space,* 301.

The olfactory function is often neglected when imagining the experience at war.[129] In addition to the stench of decaying corpses, mud, excrement and gas emanating from no-man's-land and in the trenches, the sense of smell also played a role in the war as a method of othering the enemy.[130] In a propaganda campaign, authorities and high-ranking experts within French society ascribed a medically caused malodour to the Germans as a way of profoundly anchoring hostility.

> The idea that there was a definite difference between the bodily odours of French and Germans – perceptible even on corpses, as soldiers themselves sometimes attested – made its way throughout French society, both on the front lines and the home front. It was most explicitly expressed in the writings of one Dr Bérillon, who wrote a little pamphlet published in 1915 entitled *Bromidrose fétide de la race allemande* (Fetid Bromidrosis of the German Race), presented at a session of France's Academy of Medicine. In it, he put forward the idea that the enemy's basic evilness explained their abnormally abundant defecation, in turn with the emission of a bodily odour in their sweat comparable to that of a polecat.[131]

Establishing that the enemy was biologically different and making them into sweaty, repugnant skunks served to dehumanize them. That they excrete waste differently from that of a French person created an association of alterity, making it easier to justify increasingly extreme tactics to win the war.[132]

[Destruction of Hierarchies]

In this introduction, I have accounted for Surrealism's founding and its relationship to science, the "New Biology" of the twentieth century and the effects that World War I had on the expansion and contraction of the senses. Throughout, there has been mention of the pillars of inquiry – hegemonies challenged and status quos subverted as they relate to ocularcentrism, gender roles and anthropocentrism resulting from the war – with the addition of materialist science. This last section will discuss the historical context of the war's effect on the three paradigms. This will serve to contextualise the Surrealist desire to subvert via the use of marine fauna and their alternative modes of perception. The upcoming chapters on Man Ray, Painlevé and Agar examine specific relations to these hierarchies, drawing parallels between the effects of the war and the individual ways in which these artists represented their subversion.

---

[129] Likely due to its inability to have been documented in the same way as photographs, films and sound recordings had been taken.

[130] Kern, 301.

[131] Audoin-Rouzeau and Becker, *14–18,* 104.

[132] While calling someone or a group of people "stinky" is essentially regressing to playground taunting, it goes deeper into issues of cleanliness and the fact that humans are biologically hardwired to avoid things which smell bad so as to avoid illness; in prehistoric times this othering could cause someone to be cast away from the group, left to fend for themselves, risking exposure, starvation and vulnerability to attack, essentially condemning the person to death.

The shifts in Western European civilisation following the Great War were anchored in the destructions of myriad paradigmatic structures. "Class, rank, and nation were leveled; World War I assaulted far more of the hierarchical structures of privilege than its participants had ever expected."[133] On the battlefield, everyone was alongside each other. There was less distinction in uniform for troops and their commanding officers.[134]

> The psychological fragmentation experienced in no-man's-land during the war was but one of a series of shattered forms—national boundaries, political systems, social classes, family life, sexual relations, privacy, moral imperatives, religious convictions, human sensibilities. The form of the fighting itself was unlike that of any previous wars, as trenches replaced fixed fortifications, battles expanded into the third dimension, and camouflaged machines blended into the surrounding countryside.[135]

Putting humanity into question, the very hierarchies which stratified society were suddenly available for reconsideration. This also meant a change in perception of things, especially since everything had metaphorically and existentially been turned upside down by the war. While much had been in flux prior to the war, the conflict advanced and solidified those changes that would indelibly alter Europe.

> If Picasso's observation was not made with an understanding of the direct influence that Cubism had had on the invention and development of camouflage, it was at least a recognition that there might be some indirect link between the two phenomena that occurred at almost the same time in history and had such a similar cultural function. Side by side they implied that the traditional ways are not necessarily the best ways of ordering objects in pictorial space or men and guns on a battlefield or, with a bit of interpretive stretching, classes in society. The abandonment of the old military uniform, so intimately associated with aristocratic society, was a repudiation of the convention of deference to rank in the army and in the civilian world. Henceforth troops and artillery guns, like pictorial objects, would be given prominence only if the situation required, not because of outmoded conventions. Cubism and camouflage leveled the older hierarchies in order to re-hierarchize the world in ways that suited the real exigencies of the current situation.[136]

Whatever the old model had entailed, there was no doubt that those who emerged from the war experienced change. With all the ways in which the war was a launching point for questions relating to the capacities of the human body, the exploration of subverting these paradigms presented tools to navigate this new landscape. The paradigms of ocularcentrism, gender roles and anthropocentrism are challenged by Surrealism's employment of marine fauna in its work. The provocation of these constructions – in conjunction with the parallel current of a materialist Surrealism flowing alongside the orthodox metaphysical – are by-products of the interwar era. They are briefly discussed below to provide additional context for this thesis' argument before closing this introductory chapter.

---

[133] Kern, *Culture of Time and Space,* 301.
[134] Jay, *Downcast Eyes*, 213.
[135] Kern, *Culture of Time and Space,* 302.
[136] Kern, 303.

The first hierarchical structure to be discussed is the primacy of vision. This model – as well as "a Cartesian world of things – of objects and subjects fixed in time and space" had been dominant for centuries.[137] This was not only accepted as the rule, but able-sighted humans have long relied on sight as the primary mode of sensory perception. Therefore, with time no longer fixed and World War I having sparked a crisis of the senses after having been torn asunder, it was essential to evolve into this new world.

> The First World War challenged and in certain cases toppled the traditional hierarchies of European life, the 'noblest of the senses' was by no means impervious to its impact…The ancient scopic régime, […] Cartesian perspectivalism, lost what was left of its hegemony, the very premises of ocularcentrism themselves were soon being called into question in many different contexts. In certain cases, the crisis of visual primacy expressed itself in direct terms; in others, it produced compensatory vindications of an alternative scopic order to replace the one that seemed lost.[138]

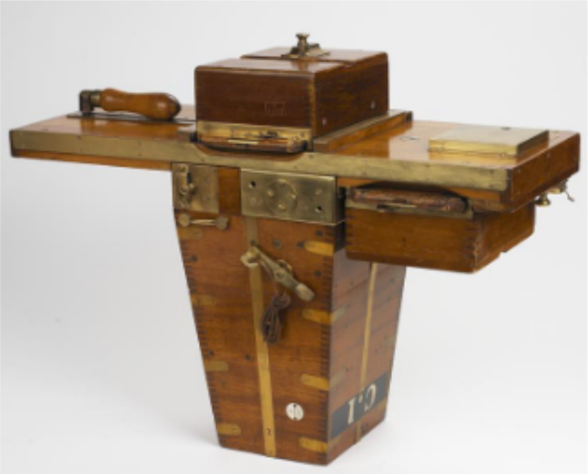
The innovations achieved over this short period of time nearly all served as some form of expansion of the senses of the human body. The quest to explore these new orders – or compensatory vindications – would be seen again in Surrealist works which will be discussed. For example, Agar's *Ceremonial Hat for Eating Bouillabaisse* features elements pointing to expanded vision due to the elevation of sea creatures which are therein accorded a periscopic vantage point while also remaining inherently tactile, not only due to its wearability but also due to its adornment with coral and the stinging protective element.[139]

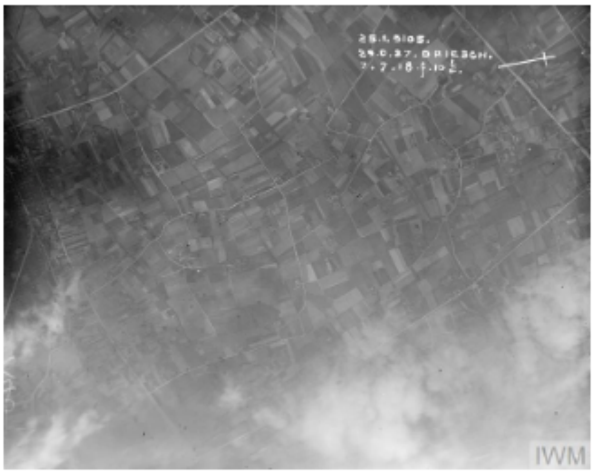
---

[137] Parkinson, *Surrealism, Art and Modern Science*, 154.

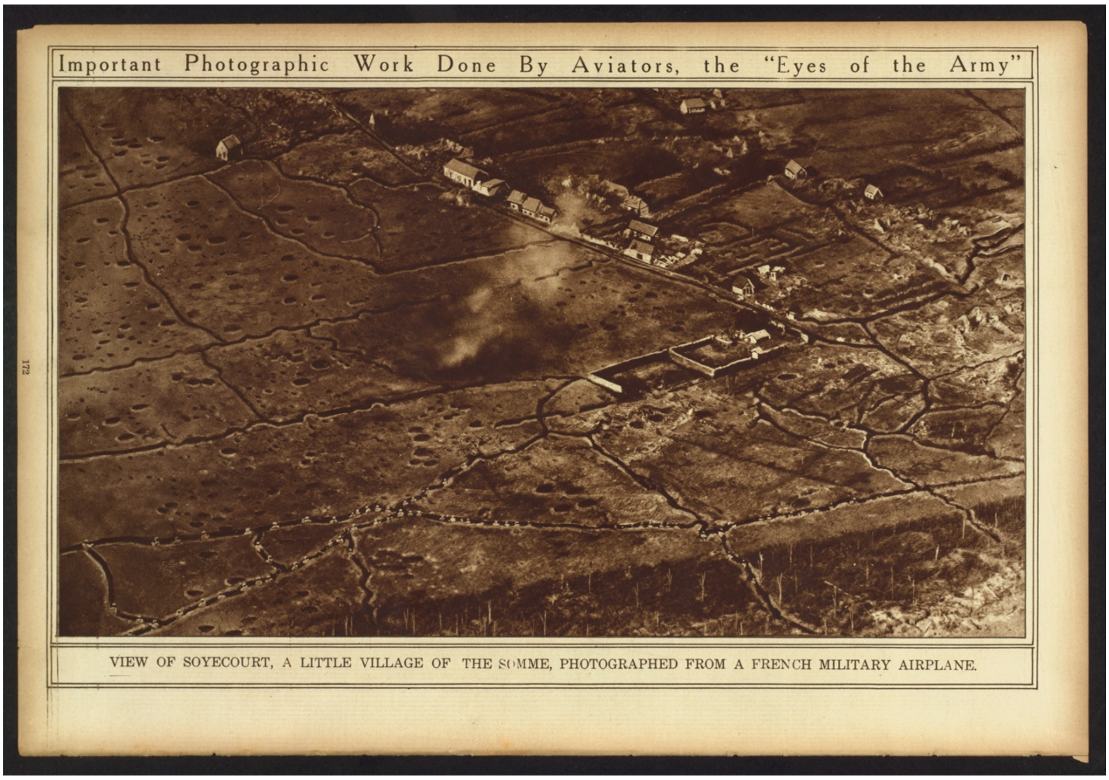
[138] Jay, *Downcast Eyes*, 211.

[139] For more on the sensory modes and Agar's *Ceremonial Hat*, see the forthcoming article: Christina Heflin, "*The Ceremonial Hat for Eating Bouillabaisse* d'Eileen Agar et les modes sensoriels," *Horsd'œuvre* nº 48: Ressentir les mondes (Winter 2021-2022).





(Left) Fig. 0.9, C Type Aerial Camera, Manufacturer: Thornton Pickard, wood and metal, 39 cm x 54 cm x 22 cm
(Right) Fig. 0.10, Aerial photograph, Plotting reference: 29C 27, Key feature: Driesch, July 7, 1918



Important Photographic Work Done By Aviators, the "Eyes of the Army"

VIEW OF SOYECOURT, A LITTLE VILLAGE OF THE SOMME, PHOTOGRAPHED FROM A FRENCH MILITARY AIRPLANE.

172

Fig. 0.11 Important Photographic Work Done by Aviators, the "Eyes of the Army"
View of Soyecourt, a Little Village of the Somme, Photographed from a French Military Airplane.
Image 167 of *The War of the Nations : Portfolio in Rotogravure Etchings : Compiled from the Mid-Week Pictorial* (New York), 1919, Bequest John J. Pershing. Nov. 14, 1952. Library of Congress, Washington, DC.

Ocular vision benefitted from major technological advances far more than any of the other senses.[140] "Historians of technology have pondered the implications of our expanded capacity to see through such devices as the telescope, microscope, camera or cinema. What has been called the expansion of our 'exosomatic organs' has meant above all extending the range of our vision, compensating for its imperfections, or finding substitutes for its limited powers."[141] Aerial photography – due to refining of aeronautic and photographic technologies – as well as trench and submarine periscopes, stereoscopes, kaleidoscopes, phenakistoscopes, kinoras and X-rays served to expand and extend vision to allow the gathering of more information and knowledge. (Figs. 0.9, 0.10 & 0.11) As Walter says, "These gadgets exploited the embodied limits of the eye in order to produce their effects and also offered an image that was fragmented and that unfolded temporally as those effects."[142] Interestingly, Morrisson brings together the concept of visual perception and empirical knowledge as it relates to technology stating, "the microscope and other technologies privileged sense over erudition."[143] There were countless scientific discoveries at this time, that anything could be disproved in the blink of an eye, challenging established knowledge. Morrisson also engages with Walter on the relationship between human vision and these new innovations, which brought about a new way of seeing within the scope of Modernism. He states,

---

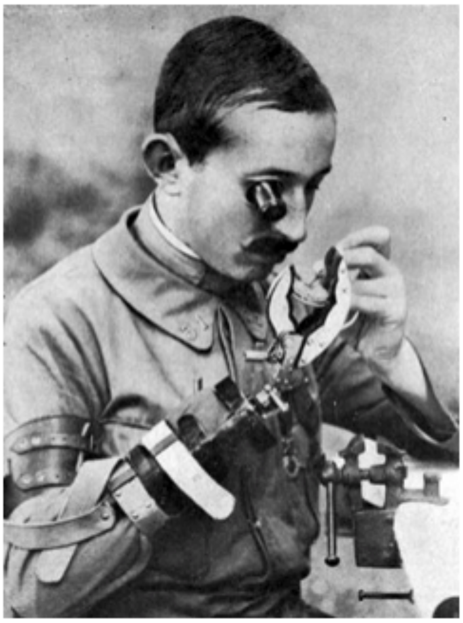
[140] Not to discount telephones, telegraphs, remote listening devices and more which allowed for human hearing to go beyond anything naturally accorded to the ear and were all recent inventions or had been recently developed.

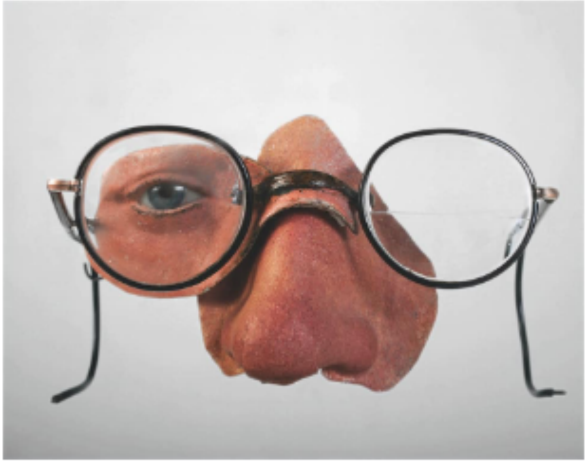
> Walter suggests that a new model of vision was at play that subverted the venerable understanding of vision passively collecting images of the physical world or a disembodied mind to contemplate: "In the new model of vision…a rational subject no longer actively reflected upon visual percepts that passively recorded the physical world. Instead, the perceiving subject was itself part of that physical world, and its embodied processes, structures, and defects shaped perception, including the ocular apparatus, visual cognition, and visual memory." This led to a modern "optical impersonality", through which "modernists developed a vernacular science in aesthetic form, and they used this form to consider how the new physiology of vision affected notions of selfhood and identity…"[144]

Due to high rates of physical injury during the war, prosthetics and reconstructive surgery developed at a rapid pace, allowing for an expansion of the ability to touch, but not feel.[145] (Figs. 0.12 & 0.13) Moreover, much of the plastic surgery at this time was to allow *les gueules cassées* to be seen in public without horrifying others.[146] The shell-shocked were a category of the inconspicuously injured whose presence went undetected in the public space. They had been "wounded by invisible forces (of concussive shells) in body but also in the mind."[147] The situation of visibility of the wounded will be discussed further below.

---

[141] Jay, *Downcast Eyes*, 3.
[142] Christina Walter, *Optical Impersonality: Science, Images, and Literary Modernism* (Baltimore: John Hopkins University Press, 2014),15. [Also partially quoted in Morrisson, *Modernism, Science, and Technology*, 103.]
[143] Morrisson, *Modernism, Science and Technology*, 99. This indicates a hierarchical shift: knowledge as it relates to education was being surpassed by rapid innovations, with the only reliable source of information being the senses, which belies the claim of a crisis of the senses, but still challenges hegemonic structures.
[144] Morrisson, 103.
[145] Armstrong, *Modernism, Technology and the Body,* 100.
[146] This was not a particularly rare occurrence, and even if the false nose did not accord a sense of smell, largely because the sense of smell is tied to taste and if the nostrils were unobstructed odour perception was possible, it did allow for the wearer to have a sense of dignity and avoid rude stares while out in public.





(Left) Fig. 0.12, Articulated Hand Clamp Prosthesis for Amputees Made by Louis Lumière (1916) Institut Lumière collection, Lyon
(Right) Fig. 0.13, Prosthetic Nose and Eye (British), Historial de la Grande Guerre, Péronne

On one hand, many of the technologies discussed in this thesis allowed the human body to go beyond its natural capacities. On the other, the films, collages, sculptures and other works explored in this study feature marine animals which rely upon non-retinal means of sensorial information. Consideration of these sensory modes from these two angles provides an alternative to the limitations of human modes of sensing. This will be discussed in further detail in each of the chapters as the individual animals and artworks are examined for their capacities of perception and how it related to the interwar era on land.

The violence experienced during the war as well as the resulting psychological and physical trauma left incredible visible and invisible scars. Women – either those who participated in the war, those suddenly widowed or those caring for disabled husbands or other family members – were also affected. There was a crisis from a dearth of strong, able-bodied men due to many having been killed or severely wounded, thereby unable to work in a time when traditional gender roles often placed women inside the home. This lack of economic autonomy meant that most women needed a husband or other male relative provide for them.[148] The sheer fact that in France alone approximately 13% of the male population had been killed or wounded is but one of the repercussions that reverberated throughout society.[149] The model of men and women in traditional roles suddenly became impossible for scores of people, which created space for the exploration of alternative arrangements, providing women with more agency and independence. In Surrealism, this was reflected in different ways, including the symbolic inversion of domesticity, representations of powerful goddesses and sexual role reversal as seen as *Les Mamelles* as well as in the work by Jean Painlevé.

---

[147] Morrisson *Modernism, Science and Technology*, 129.

Not only did typically male work need to be done while the men were on the front, thus creating an opportunity for women to assume activity outside of the home, but the male population had also been decimated. Great thinkers of this era were also discussing and publishing on the topic of women in the workforce, even outside of France. In Lorine Pruette's 1924 work, *Women and Leisure: A Study of Social Waste*, the American psychologist showed "support for the 'new woman,'" and argued "for a countervailing involvement of women in the workforce."[150] This double-play of an educated woman publishing on women as an important aspect of the new labour force displayed that even outside of the crisis of masculinity after the war, there was a post-Great War shift to confront traditional gender roles which kept women confined.

However, on an institutional level, the French government quickly scrambled after the war to compensate for this crisis by mounting a campaign in which the nuclear family structure was not only encouraged as exemplary for post-war societal continuity but also deemed essential for economic recovery. "After the formation of a conservative coalition government in November 1919, social and economic programs promoting a return to traditional values – particularly in the family – became familiar topics of public discourse. National regeneration depended not only on modernized industry, politicians often pointed out, but also on familial productivity."[151] As seen in the poster below, campaigns to promote higher birth rates were also employed to suggest a threat of another German invasion if there were not enough people to defend France. (Fig. 0.14) This propaganda conflicted greatly with what the people of France were seeing and living with daily, and as seen in the poster, the use of persuasion and scare tactics to touch people in a still-open wound was but one of many ways that the state promoted population growth in the war's aftermath.

---

[148] Women had been working in the textile industry in France since the nineteenth century. See Susik, *Surrealism and the War on Work*, 3.
[149] Amy Lyford, *Surrealist Masculinities: Gender Anxiety and the Aesthetics of Post–World War I Reconstruction in France.* (Berkley: University of California Press, 2007), 3. Or 3.2 million men.
[150] Armstrong, *Modernism, Technology and the Body,* 60.

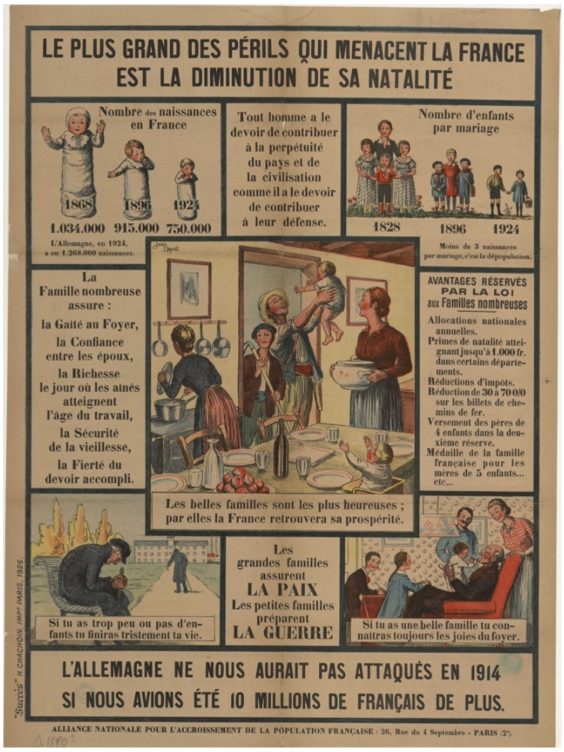

LE PLUS GRAND DES PÉRILS QUI MENACENT LA FRANCE EST LA DIMINUTION DE SA NATALITÉ
Nombre des naissances en France
1868 1896 1924
1.034.000 915.000 750.000
L'Allemagne, en 1924, a eu 1.268.000 naissances.
Tout homme a le devoir de contribuer à la perpétuité du pays et de la civilisation comme il a le devoir de contribuer à leur défense.
Nombre d'enfants par mariage
1828 1896 1924
Moins de 3 naissances par mariage, c'est la dépopulation.
La Famille nombreuse assure : la Gaîté au Foyer, la Confiance entre les époux, la Richesse le jour où les aînés atteignent l'âge du travail, la Sécurité de la vieillesse, la Fierté du devoir accompli.
Jean Droit
AVANTAGES RÉSERVÉS PAR LA LOI aux Familles nombreuses
Allocations nationales annuelles.
Primes de natalité atteignant jusqu'à 1.000 fr. dans certains départements.
Réductions d'impôts.
Réduction de 30 à 70 0/0 sur les billets de chemins de fer.
Versement des pères de 4 enfants dans la deuxième réserve.
Médaille de la famille française pour les mères de 5 enfants... etc...
Les belles familles sont les plus heureuses ; par elles la France retrouvera sa prospérité.
Si tu as trop peu ou pas d'enfants tu finiras tristement ta vie.
Les grandes familles assurent LA PAIX Les petites familles préparent LA GUERRE
Si tu as une belle famille tu connaîtras toujours les joies du foyer.
L'ALLEMAGNE NE NOUS AURAIT PAS ATTAQUÉS EN 1914 SI NOUS AVIONS ÉTÉ 10 MILLIONS DE FRANÇAIS DE PLUS.
"Succès" H. CHACHOIN, IMPr PARIS. 1926.
ALLIANCE NATIONALE POUR L'ACCROISSEMENT DE LA POPULATION FRANÇAISE : 26, Rue du 4 Septembre - PARIS (2e).

Fig. 0.14 Poster, "The greatest danger threatening France is the decrease of its birth rate," 1926, Musée d'histoire contemporaine, Bibliothèque de Documentation internationale contemporaine, Paris[152]

On one hand, women and families were suddenly left abandoned or charged with wounded men and on the other, the government was hanging posters displaying and glorifying strong, virile men and fertile, maternal women all working to reconstruct both the geographic and demographic landscape. The cognitive dissonance was certain to have been staggering for the people facing a stark recovery while the state was in denial. "When fighting first broke out in August 1914, many hoped the war would be short-lived; few predicted a conflict that would last for more than four years and scar an entire generation with its unprecedented brutality."[153] Lyford notes that the war left residual trauma on many who lived through this time. While her scope of research specifically focuses on France after World War I, the effects extend far beyond the borders of *l'Hexagone*. Morrisson speaks to this for the British and Americans who struggled with this flux, while also "balanced by palpable excitement about a future in which the imagination's wildest flights of fancy might be realizable – for good or perhaps for ill."[154] These changes, both positive and negative, in the western world catalysed a paradigm shift towards modernity that had already begun prior to the war but had been accelerated by the conflict. Those confronted by the aftermath of "the war to end all wars" included men and women who would become Surrealists in France.[155] At its geographic and metaphoric core, the bitterness stemming from denial and propaganda would go on to fuel a desire for these avant-garde minds to seek to subvert the very institutions which refused to acknowledge the scars left behind. While there was a call for the return to order, there were also prescribed, officially sanctioned public ceremonies to glorify the lost.[156]

---

[151] Lyford, *Surrealist Masculinities,* 4.
[152] "Le plus grand des périls qui menacent la France est la diminution de sa natalité" (My translation.)

Men have historically enjoyed more rights, agency and autonomy. This stratification of societal power is hierarchical, and with a confluence of circumstances, gender was turned on its head after World War I. "The 1920s, in particular, was a decade of particular attention to the nature of femininity…there was a plethora of psychological papers on the subject – [including] Freud, culminating in 'Female Sexuality' (1931)."[157] The relationship between the sexes was of great interest at the time and on the forefront of many minds. Transformations brought about after the war as well as changes in economic agency were but some of the reasons for this interest in the feminine.[158]

The societal changes of the male-female dynamic and gender roles did not end there. They had far-reaching effects on western patriarchy, bringing gender fluidity into regular society. Lyford discusses the effect in

---

[153] "Military Technology in World War I | Library of Congress."
[154] Morrisson *Modernism, Science and Technology*, 2.
[155] Audoin-Rouzeau and Becker, *14–18*, 159. H. G. Wells, *The War That Will End War* (London: Frank & Cecil Palmer, Red Lion Court, 1914). United States President Woodrow Wilson also termed the "war to end all wars" in a 1917 speech announcing the US's entry into the war.
[156] Audoin-Rouzeau and Becker, *14–18*, 8-9.
[157] Armstrong, *Modernism, Technology and the Body,* 159.
[158] Armstrong, 159.

France and the deep reaching "gender anxiety" which was provoked as a result of the war.[159] Armstrong also acknowledges the phenomenon of gender binarity as having emerged around this time, as being "on the model of electricity and magnetism rather than vice versa, since […] the shift towards a fully bipolar model of gender is coextensive with the development of theories of electricity."[160] Like time, gender as a construct had not yet calcified and was therefore malleable; in the 1930s there were the first transsexual operations, and the origin of these surgeries stemmed from advances in plastic surgery during the Great War.[161] The Institute for the Study of Sexual Sciences in Weimar era Berlin, where these operations first took place, was founded by Dr Magnus Hirschfeld, who had been actively interested in "exploring the range of available sexual orientations and blurring rather than clarifying gender-distinctions."[162] These popular technological advances having preceded societal concepts and definitions is indicative of the extent to which gender was seen as unfixed and on a spectrum.

The last hierarchical structure in question is the primacy of the human. "Leonardo da Vinci, Montaigne, Rousseau and Voltaire would also number among the critics of anthropocentrism"[163] The animals in this discussion possess capacities which go beyond those of humans. Anthropocentrism is put into question by the technologies which gradually fused with the human body as well as with society. As the early twentieth century "'progressed it became impossible to maintain an absolute distinction between the organic expressions of human nature and the technological processes, forms and devices which recorded and communicated those expressions as culture.'"[164] These animals' abilities, combined with the technologies developed during the war plus trauma, put into question the dominance of the human. Like many other aspects within Surrealism, which took aim at blending interior and exterior worlds and realities, many boundaries were purposefully pushed to the point of overlapping. "Since the Surrealists' enthusiastic discovery of the fantastic bestiary of Lautréamont's 1869 prose poem, *Les Chants de Maldoror*, the exploration of the thought of man-as-animal had become a commonplace of Surrealism."[165] Its artists worked with aquatic fauna to create narratives from their perspective –like in Man Ray's *Etoile de mer*. Their anthropomorphization establishes affective connections – as seen in Painlevé's work – and accords human and animal subjects with equal artistic treatment – as seen in Agar's work and reflected in her archival materials, which all speak to a desire to subvert the hegemonic dominance of humans over other animals. The focus on the marine fauna within the movement took the spotlight off humans, blurred the line demarcating the human-animal divide and shuffled the hierarchy to accord importance to these underwater creatures as a form of deanthropocentrisation.

---

[159] Lyford, *Surrealist Masculinities*, passim.
[160] Armstrong, *Modernism, Technology and the Body,* 20.
[161] Armstrong, 159, 165.
[162] Armstrong, 166-167.
[163] Kirsten Strom, *The Animal Surreal: The Role of Darwin, Animals and Evolution in Surrealism* (New York: Routledge, 2021), 2.
[164] Morrisson, *Modernism, Science and Technology*, 2. [Quoting Alex Goody, *Technology, Literature and Culture* (Cambridge: Polity, 2011), 1.]

Linking the Great War to the use of sea creatures in Surrealism has required a few intermediary steps, which have been dissected here, and will continue through the three chapters in the body of this thesis. The war created many shifts and left behind trauma. While it was an assault on all the senses, it caused a crisis in the faith of vision, humankind's most dominant sense. Concurrently, scientific technological advances had expanded sensory modes allowing the human body to go beyond its natural capacities. Furthermore, gender roles were questioned, and the human-animal boundary began to blur. Soon after the war, and within this context, the Surrealist movement emerged. Most notably, ocular violence became a prominent Surrealist theme, which Jay ascribes to the vision crisis and a desire to destroy ocularity. Also, within Surrealism there was the use of marine fauna, whose own sensorial functions differ from the ocularcentrist human. These acts of violence, when seen as symbolic and not literal, placed alongside animals which do not prioritise vision demonstrate a challenge to the hierarchy of the senses and a desire to subvert this paradigm.

Regarding the state of the art in my area of research, there is an excellent trove of scholarship on Modernism, Surrealism and the avant-garde, and I am grateful for the meticulously laid groundwork. I am especially glad to have heeded Dawn Ades' advice to obtain a copy of the *The International Encyclopedia of Surrealism*, whose three volumes are incredibly rich with almost every theme imaginable as it relates to Surrealism and its inner orbit (save biology). Ades' work is also indispensable in the scholarship of Surrealism, ranging from the 1974 book *Dada and Surrealism* and the 1978 exhibition catalogue *Dada and Surrealism Reviewed* all the way through *Undercover Surrealism: Georges Bataille and Documents*, the 2006 Hayward Gallery exhibition, with the first two of these publications providing general historical information and the third telescoping on different themes and contributors found within *Documents*. As I was wrapping up my research and writing, Jacqueline Chénieux-Gendron recommended that I consult the book that she helped edit for the 2020 Bibliothèque nationale de France's exhibition *L'Invention du surréalisme : des* Champs magnétiques *à* Nadja, which was indeed another rich resource of Surrealism's earliest days, with short essays on various aspects that serve as forensic evidence of the emergence of the movement. The 1985 exhibition catalogue for *L'Amour Fou: Photography & Surrealism*, edited by Jane Livingston and Rosalind Krauss, is crucial in its articulation of the role of the photographic medium in the movement. Filled with poignant essays containing rich analyses and historical information about this intersection, this work proved to be essential.

---

[165] Rosalind E. Krauss, "Corpus Delicti," *L'Amour Fou: Photography & Surrealism*, ed. Jane Livingston and Rosalind Krauss (New York: Abbeville Press, 1985), Hayward Gallery, Exhibition catalogue, 60.

Tim Armstrong's 1998 book, *Modernism, Technology, and the Body: A Cultural History* as well as Mark S. Morrisson's 2016 work, M*odernism, Science, and Technology* have been both instrumental – especially early in the research process – in contextualising the technological developments following World War I while also placing it within the framework of the avant-garde and Modernism. To fill in the gaps relating to the Great War, I was incredibly appreciative of both Evelyne Desbois' 1992 article « Vivement la guerre qu'on se tue ! » As well as Stéphane Audoin-Rouzeau and Annette Becker's 1992 work, *14–18: Understanding the Great War*. Of great significance as it relates to this era and an unorthodox mode of sensing - the feeling of time passing - I am in great debt to Stephen Kern's *The Culture of Time and Space, 1880–1918* (1983), which, like Armstong's and Morrisson's works, provided the perfect blend of cultural and historical information as it related to time (as well as space, but less relevant to my work). Amy Lyford's 2007 *Surrealist Masculinities: Gender Anxiety and the Aesthetics of Post–World War I Reconstruction in France* brings in important knowledge on the relation of gender and the interwar era, especially how it had been affected in France. It dialogues nicely with Armstrong's work in its discussion on prostheses, which I examine in terms of both corporeal expansion and trauma.

The biographies and autobiographies of the artists in this study were of great interest, but I found myself oftentimes having to take these accounts - especially the self-written ones - with a grain of salt. Biases, the passing of great amounts of time and a synthesis of hindsight emerged as prominent caveats whilst referring to them. While they are primary, historical documents, they are also subjective, fallible and need to be remembered as such. Autobiographies such as Man Ray's *Self-Portrait* (1963), Buñuel's *My Last Breath* (1982) and Agar's *A Look at My Life* (1988) were consulted, but always with a critical eye, as discrepancies would often appear in other sources more objective in nature. This was sometimes mitigated by scholarly biographical sources, such as Kim Knowles' 2009 *A Cinematic Artist: The Films of Man Ray.* Carole Aurouet's *L'Etoile de mer, poème de Robert Desnos tel que l'a vu Man Ray* (2018) was a treasure trove of valuable information and contained a depth of consideration and knowledge that brought me closer to Desnos' importance in relation to the film, which I found to have been otherwise greatly overlooked within anglophone scholarship, with its reputation leaning more on Man Ray's authorship at the expense of the poet's contribution. Another greatly helpful resource regarding film studies for this thesis was *Dada and Surrealist Film*, edited by Rudolf E. Kuenzli, which featured essays on Duchamp, Fondane and Surrealist film writings which brought a deeper understanding of these last two topics alongside M. B. Iampolski's essay "Intertext against Intertext: Buñuel and Dalí's *Un Chien andalou,*" which plumbed the depths of Surrealism and filmmaking.

My work on Agar was based primarily on her archival materials at the Tate as well as her autobiography. So much of the groundwork and the focus on the contribution made by women during the Surrealist movement is due to the work by Patricia Allmer, whose 2009 exhibition catalogue *Angels of Anarchy: Women Artists and Surrealism* cleared the twenty-first-century path for future exhibitions and scholars to begin bringing these artists out of the shadows to allow them their own place of prominence alongside their male counterparts. Of course, Allmer stands on the shoulders of giants like Whitney Chadwick and Penelope Rosemont, whose respective important works *Women Artists and the Surrealist Movement* (1985) and *Surrealist Women: An International Anthology* (1998) preceded this exhibition. While there is still much work to be done, many scholars can look to this work as having contributed to these artists such as Lee Miller, Leonora Carrington as well as Eileen Agar becoming household names, especially the case since Agar's spring 2020 show at the Whitechapel Gallery in London. Michel Remy's 2017 book, *Eileen Agar: Dreaming Oneself Awake,* as well as *Surrealism in Britain* (1999) provided useful information on the history of both Agar's artistic career as well as the emergence of a Surrealism in the United Kingdom, having worked on the topics for nearly half of a century, even if I did not always agree with his interpretation of her work.

When I began this project, I found very little on the specific Surrealist artists I had chosen, biology and the marine. This changed, though, with the emergence of James Leo Cahill's 2019 work, *Zoological Surrealism: The Nonhuman Cinema of Jean Painlevé* and when I found Roxane Hamery's 2006 *Jean Painlevé : le cinéma au cœur de la vie*, which were incredibly useful for biographical and art historical information on the marine filmmaker. Due to the lack of inventory and perhaps some doubts about my project, Painlevé's archives were not as contributive as I would have liked. In addition to Cahill's and Hamery's work, *Science is Fiction*, edited by Andy Masaki Bellows and Marina McDougall (2000) was an incredibly helpful collection of essays both by and on Painlevé. Kirsten Strom's *The Animal Surreal: The Role of Darwin, Animals and Evolution in Surrealism* remains on *terra firma* but gives helpful context of Surreal animality. Edward Juler's book *Grown but Not Made: British Modernist Sculpture and the New Biology* which was published in 2016 when I began my PhD journey, also provided valuable historical context, but I was also working in film and photography and in France. Regarding the subject of the Bataillian ocular violence and the examination of his 1928 novella, Patrick ffrench's *The Cut: Reading Bataille's* Histoire de l'oeil takes a place of prominence for both its thoroughness and the unflinching analysis of a work that cannot be taken outside of its francophone context, which ffrench manages to move with as opposed to trying to force it fully into English.

For the hard biological sciences, I relied mostly on two marine biology textbooks, one of which I had located in the Muséum d'histoire naturelle's library, *Invertebrate Zoology: A Functional Evolutionary Approach* (2004) and the other was found on Royal Holloway's reading list for marine biology students, *Invertebrate Tree of Life* (2020). Both of these works were sufficiently generalised and large enough in scope to provide nearly all information regarding marine invertebrate sensoria as we understand it today. Another significant resource in this realm was the 2012 *Brain* article by Joost Haan, et al. "Neurology and Surrealism: André Breton and Joseph Babinski," which approached Breton's Freudian position from a historic-scientific standpoint, directly from the psychiatric ward of the hospitals where he worked. Most importantly, it underlined the weakness in his Freudian predilection due to the lack of properly translated works into French at the time of Surrealism's birth, which I had suspected but lacked confirmation.

I had found that Linda Dalrymple Henderson's 1983/2018 *The Fourth Dimension and Non-Euclidean Geometry in Modern Art* as well as Gavin Parkinson's 2008 *Surrealism, Art, and Modern Science: Relativity, Quantum Mechanics, Epistemology* (based on his doctoral thesis) to be a model upon which I had initially wanted to base my own work, but on the biological sciences instead. Though it widens beyond the scope of a formula of Surrealism/avant-garde + science, I feel that my work nevertheless thematically falls amongst these scholars' as well as Margaret Cohen's essential 2014 article "Underwater Optics as Symbolic Form," which address early underwater vision. My aim is that they help connect the spaces in between these works as well as the other scholars whose work has preceded me, and which helped to build my argument here. In addition, I hope the inclusion of some of the physiological characteristics of these animals help scholars to understand how their sensorial capacities could have been accorded to humans as a way of adapting via sensorial expansion after the war.

This entire doctoral research project stems from the intellectual gymnastics underwent whilst reading Martin Jay's 1993 masterpiece *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought.* Despite his incredibly and thoroughly methodological examination of the history of opticality in the west, I found that there were instances in which his point was superfluously extended slightly beyond the necessary in order to make his case. It was in these instances where I found slight cracks and decided to open them up and fill them with this scholarship, especially where Jay claims to have made the link between Surrealist ocular violence and the Great War. In a way, I hope that this work helps bolster his argument by taking it slightly off of its original course so that he can be as correct as someone who has done this much work deserves to be.

As we reach the end of this introduction and move to the next chapter, we now turn to a detailed contextual analysis of western visual culture as well as a discussion of the ocularly violent work by Bataille, Buñuel and Dalí before looking at the first work which features marine fauna, Man Ray and Desnos' *L'Étoile de mer.* Then important aspects of Bataille's journal, *Documents,* will be reviewed for their demonstration of this desire to subvert paradigms and reflect an engagement with materialism and science. This will be followed by chapters on Painlevé and Agar as well as an epilogue that ties together the elements explored in this thesis as an opening to further discussion on the use of undersea creatures in the service of subversion.

CHAPTER ONE – MAN RAY & ROBERT DESNOS

This chapter is dedicated to the film by Man Ray and Robert Desnos, *L'Étoile de mer* (heretofore *L'Étoile*), but first will begin with a discussion of Jay's text which meticulously outlines the relationship of the eye to western culture, which is essential for tracing the historical lineage through which Surrealists worked. I argue that what Jay often describes as a desire to destroy vision is often what I see as a fixation with alternative modes of ocularity that has no interest in destruction whatsoever. My analysis of Jay's argument demonstrates that this obsessive revisiting of vision is a way of playing with sensorial structures, with no malign intent towards the eye or retinality, but rather expanding the senses as seen in so many recent innovations of the era as a way of navigating a new post-war world.

[The Sensing Body and Ocular Violence in Culture]

As shown in my introduction, many of the Great War's sensorial assaults were subsequently reflected in Modernist creative output, starting with the Dadaist impulse of an "assault on the senses."[166] The body had become central to the technology of the era, though not without consequences. "In the modern period, the body is re-energized, re-formed, subject to new modes of production, representation and commodification."[167] One such technology was electricity; Armstrong relates its advent to the body within a corporeal-societal context, stating,

> With Edison's production of the domestic light bulb in 1879, and the introduction of arc-lights in public spaces in the 1880s, a revolution took place. What was involved was more than just a technological shift; it suggests an alteration in what Félix Guattari calls the 'social chemistry of desire,' the means through which desire and motivation are articulated and transmitted. If the social and individual body are intimately related, then the programs for the wiring of houses that gathered pace around the turn of the century find parallels in the wiring of individual bodies…[168]

Concepts and metaphors relating body and mind to electrical currents and lightbulbs used today were nascent at this time. In addition to light's physiological relation to ocularity – and its expansion of vision within time contingent upon new technologies of artificial lighting – similarities between electricity and human internal systems helped many to understand both concepts.[169] This familiarity provided a shorthand for people to better adapt to the innovations, including "the electric image."[170] Other networks relating to recent technologies and systems of communication like railroads, telegraphs and later neurological systems "suggest the early origins of current comparisons of computer networks and nerve networks" which arrived later in the twentieth century.[171]

---

[166] Armstrong, *Modernism, Technology and the Body,* 219. Parkinson, *Surrealism, Art and Modern Science*, 186.
[167] Armstrong, *Modernism, Technology and the Body,* 2.
[168] Armstrong, 21.

The importance of light and its function within vision is well documented in its relation to sensory perception and art. Surrealist Wolfgang Paalen (1905-1959) stated, "as no man can hold himself satisfied with the affirmation that light is merely a number of vibrations, it is highest time to realize that the poet speaks as truthfully as the scientist when he claims that light belongs to the realm of vision."[172] The human body senses itself, as Merleau-Ponty described, "The enigma is that my body simultaneously sees and is seen… It sees itself seeing; it touches itself touching; it is visible and sensitive for itself."[173] Within the body's perceptive system, there is reciprocity; touching and being touched, seeing and being seen, presenting sensorial imbrication. Marks introduces "haptic *visuality*" in which the "eyes themselves function like organs of touch" and thereby involve the viewer's body to a greater degree by means of evoking memory of past sensation.[174] This then invites synaesthesia, which Jay categorizes as "aspiring to the creation of a *Gesamtkunstwerk*."[175] I locate this as the contrary, with Wagnerian creative aspirations of multi-sensorial exaltation having originated in a desire to replicate serendipitous organic experiences. Synaesthesia's relationship to Wagner in the nineteenth century – a phenomenon already known to the ancient Greeks – may have had a moment of being closely intertwined due to the former's popularisation by the latter, but even in the modern era, great minds including Giuseppe Arcimboldo (1526-1593) and

---

[169] For more, see Wolfgang Schivelbusch, *Disenchanted Night: The Industrialization of Light in the Nineteenth Century*, trans. Angela Davies (Berkeley: University of California Press, 1995).

[170] Armstrong, *Modernism, Technology and the Body,* 26.

[171] Morrisson, *Modernism, Science and Technology,* 95. For more, see Wolfgang Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century*, trans. Anselm Hollo (Berkeley: University of California Press, 2014).

[172] Wolfgang Paalen, "Art and Science." *Dyn* 3 (1942): 6. [Quoted by Parkinson, *Surrealism, Art and Modern Science*, 164.]

[173] Maurice Merleau-Ponty, "Eye and Mind," *The Primacy of Perception*, ed. James M. Edie (Evanston, IL: Northwestern University Press, 1964), 162.

[174] Laura Marks, *Touch: Sensuous Theory and Multisensory Media.* Minneapolis: University of Minnesota Press, 2002), 2-3, 133.

[175] Jay, *Downcast Eyes*, 172.

Isaac Newton (1643-1727) were already seeking to unite sound and colour, so Jay's claim would make more sense in the inverse.[176]

Alternatively, one sense may act for another, in the way that a glance touches upon an object. Merleau-Ponty discusses Cartesian vision stating, "it is best to think of light as an action by contact – not unlike the action of things upon the blind man's cane. The blind, says Descartes, 'see with their hands.' The Cartesian concept of vision is modelled after the sense of touch."[177] Nancy also relates Descartes' materialisation of the mind through writing, bringing multisensorial embodiment to thought, or "how the mind shows itself in the body."[178] Replacing vision with another sensory mode points to an interrelationship of sensoria. These elements signal a blurred boundary between modes of perception, which is anchored in a discourse which goes back to antiquity. "Plato in the *Phaedo* states, speaking in the context of the Socratic discussion of the relation between body and soul, that 'if one wants to touch the truth of ideas one must forfeit the sensory bodily experiences,' especially those related to the gaze and voice."[179] This demonstrates symbiotic interfunctionality of the senses.

Susan Sontag's (1933-2004) intellectual engagement with modernism, her place within late modernism and her work on the experience of art provide an opportunity to reflect on her work on art and sensoria, writing that "Rilke described the artist as someone who works 'toward an extension of the regions of the individual senses;' McLuhan calls artists 'experts in sensory awareness.' And the most interesting works […] are adventures in sensation, new 'sensory mixes.'"[180] Here Sontag further demonstrates the artist's inherent ability to expand perception – much like technologies developed during the Great War – and to bring them together as a sum greater than its parts. Like Breton's appeal, "To aid the systematic derangement of all the senses, a derangement recommended by Rimbaud and continuously made the order of the day by the

---

[176] Greta Berman, "Synesthesia and the Arts," *Leonardo* 32, no. 1 (1999): 16.
[177] Merleau-Ponty, "Eye and Mind," 170.
[178] Jean-Luc Nancy, "Dum scribo," *Oxford Literary Review* 3, 2 (1978): 12 and *passim.*
[179] Mirt Komel, "A Touchy Subject: The Tactile Metaphor of Touch," *Družboslovne razprave* 32, no. 82 (2016): 116.
[180] Susan Sontag, "One Culture and the New Sensibility," in *Against Interpretation and Other Essays*, London: Penguin, 2009), 300.

Surrealists, it is my opinion that we must not hesitate to *bewilder sensation*," there is an underlying quest to challenge the limits of perception.[181]

Sontag characterised art "as an instrument for modifying and educating sensibility and consciousness, [that] now operates in an environment which cannot be grasped by the senses."[182] She quoted Buckminster Fuller's (1895-1983) position and how "'industry suddenly went from the visible to the invisible base, […] from the wire to the wireless… The big thing about World War I is that man went off the sensorial spectrum forever as the prime criterion of accrediting innovations … The old masters, who were sensorialists, have unleashed a Pandora's box of non-sensorially controllable phenomena.'"[183] The loss of sensorial agency through technological innovation elided the visible, tactile, audible, and odorous, leaving a void where perception had once been. Sontag also claimed that Modernism sought to undo the desensitising that resulted after the Great War. "Western man may be said to have been undergoing a massive sensory anesthesia […] at least since the Industrial Revolution, with modern art functioning as a kind of shock therapy for both confounding and unclosing our senses."[184] This confirms a desire for artists of this era to actively seek sensorial repositioning following the conflict. Given the Surrealist relationship with the war, these statements by Sontag and Fuller offer a direct line from bellicose sensorial experience to Surrealism, including works featuring undersea animals and their non-ocular modes of perception.

Armstrong describes cinema as "enabled by a rupture in the enlightenment sense of an epistemology founded on vision. In the nineteenth century, the eye comes to be seen as flawed, subject to limits and susceptible to illusionistic effects – one of which, persistence of vision underlies cinema…It is in this sense doubly prosthetic: an extension of a sense and the exploitation of its limits."[185] As explored below, discourse on the eye's fallibility predates this. Since the Enlightenment, there have been other challenges to the dominance of vision but in a continuation from said earlier discourse. Furthermore, the context of the naturalised perspective and spatial relations established by the camera must be considered, which pushes vision closer to sensorial extension than liminal exploitation.[186] Vision's failure is what manufactures its primacy.

---

[181] André Breton, "Surrealist Situation of the Object (1935)," in *Manifestos of Surrealism*, trans. Richard Seaver and Helen R. Lane (Ann Arbor, MI: The University of Michigan Press, 1969), 263.
[182] Sontag, "One Culture and the New Sensibility," 301.
[183] Sontag, 301.
[184] Sontag, 302.
[185] Armstrong, *Modernism, Technology and the Body,* 220.

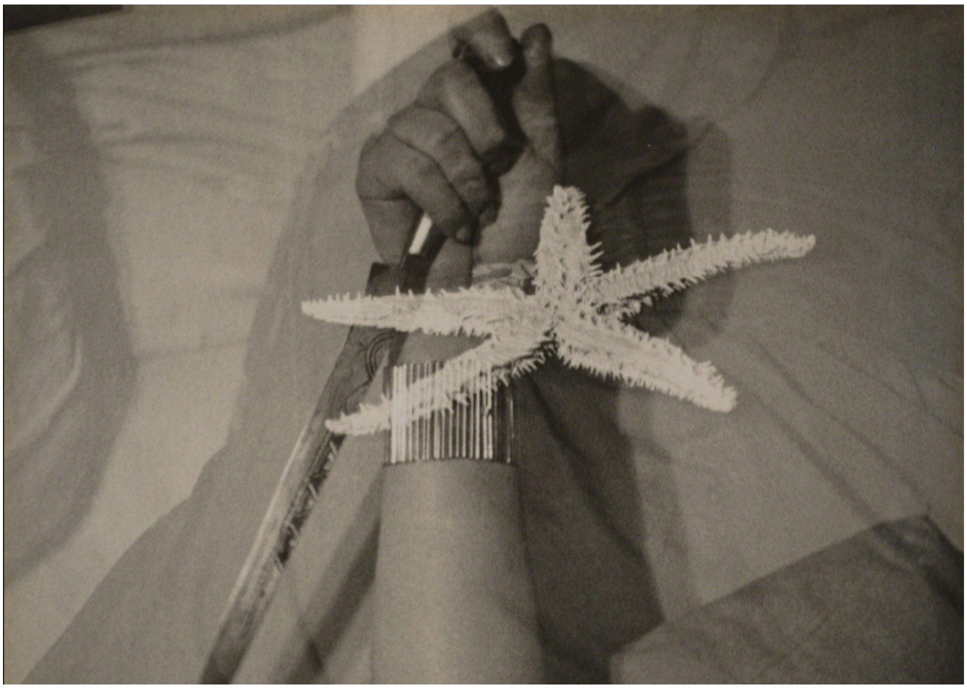


Fig. 1.1, Man Ray and Robert Desnos, still from *L'Étoile de mer*, 1929

Paradoxically, Surrealist cinema possesses an insistent, inherent non-visual character. Many screenplays were never realised into films, "retaining their significance precisely as facts of literature."[187] They drew on a Dadaist tradition of internalised ocularity, best expressed in the preface to Francis Picabia's (1879-1953) *La Loi d'accommodation chez les borgnes, "Sursum corda"* (1928), where he writes that the text is to be screened only by the individual on the screen of his imagination.[188] The only visualisation of these works was within the mind's eye. Iampolski maintains that they were never intended to be produced, creating a wilful removal of vision from the film itself, making it unviewable externally. He names only a few films, including *The*

---

[186] Jean-François Lyotard, "Representation, Presentation, Unpresentable," in *The Inhuman: Reflections on Time*, trans. Geoff Bennington and Rachel Bowlby, (Stanford: Stanford University Press, 1991), 120.
[187] Iampolski, "Intertext against Intertext," 162.
[188] Francis Picabia, *La Loi d'accommodation chez les borgnes, "Sursum corda" (Film en 3 parties)* (Paris : Éditions Thierry Briant, 1928).

Seashell and the Clergyman by Germaine Dulac and Antonin Artaud (1928), Buñuel and Dalí's *Un Chien andalou* (1928) and Man Ray's *L'Étoile* (1928) (Fig. 1.1).[189]

He quotes Benjamin Fondane (1898-1944) who wrote in his 1928 *ciné-poème* entitled *The Ripe Eyelids* "'So let us begin the era of unfilmable scripts… Let us say right away that these screenplays written *to be read* will be shortly drowned in 'literature'… The fact is that a part of myself, that poetry has repressed, has found in the cinema a general loudspeaker though which to pose the questions that torment it.'"[190] He did not seek to remove vision from cinema, but rather shift the mode of perception.[191] Though these scripts featured writing which cannot be envisioned, Fondane sought the audible in the loudspeaker by which expression can be made.[192] Jay explains the inextricable relationship between language and vision, "'written descriptions create highly specific mental images.'"[193] When a text is read, the mind's eye creates a film of its own.[194] The text-image relation will be revisited.

In the cinema, the room is darkened, momentarily removing the ability to see. Then the projected film appears, creating a visual substitution and replacing ocularity. "Desnos, who was the Surrealists' most serious film critic, spoke for many of them when he gushed, 'For us and only for us had the Lumière brothers invented the cinema. There we were at home.'"[195] Breton echoed this sentiment, stating, "The cinema? Three cheers for darkened rooms."[196] This removal of vision to visualise a film speaks to "Surrealism's unequivocal rejection of the French heritage of Cartesian common sense."[197] This also ties in with Antonia Lant's discussion in *Haptical Cinema* on the relation between lack of vision and haptics as a way of highlighting differences in spatial proximity with relation to different sensory modes.[198]

---

[189] Iampolski, "Intertext against Intertext," 162.

[190] *Les Paupières mûres*. Iampolski, "Intertext against Intertext," 162-163. For more, see Richard Abel, "Exploring the Discursive Field of the Surrealist Scenario Text," in *Dada and Surrealist Film*, ed. Rudolf E. Kuenzli, 58-71. (Cambridge, MA: MIT Press, 2001).

[191] "Fondane's first essay on the cinema was apparently his review of [René Clair's (1898-1981) 1924 film] *Entr'acte.* He praises it as a film in which the camera plays the hero." Christensen, "Benjamin Fondane's 'Scenarii intournables,'" 80. Painlevé's sea creatures would be hailed as heroes by Sadoul. Georges Sadoul, *French Film*. London: Falcon, 1953), 44.

[192] Fondane was also a scriptwriter for Paramount Pictures from early 1930 until 1933. Monique Jutrin, "Beyond the Avant-Garde: Benjamin Fondane." From Dada to Infra-Noir: Dada, Surrealism and Romania. *Dada/Surrealism* 20, article 6 (2015): 8 ; Jacqueline Chénieux-Gendron, "Benjamin Fondane," in *The International Encyclopedia of Surrealism*, vol. 1, ed. Michael Richardson, (London: Bloomsbury, 2019), 575.

[193] Jay, *Downcast Eyes*, 8.

[194] For *The Seashell and the Clergyman*, Artaud felt entirely betrayed by Dulac's visual manifestation of his writing. Kim Knowles, *A Cinematic Artist: The Films of Man Ray* (Oxford: Peter Lang, 2009), 272n1.

[195] Jay, *Downcast Eyes*, 254. [Quoting Robert Desnos, *Cinéma* (Paris : André Tchernia, 1966), 154.]

[196] Breton, "Manifesto of Surrealism (1924)," 46.

[197] Parkinson, *Surrealism, Art and Modern Science*, 38.

The relationship between ocular vision and Surrealism is palpable and "was as much a visual as verbal phenomenon."[199] While it began as a literary movement, the tenets of Surrealism were quickly adopted by painters and photographers. The intrinsic relationship between Surrealism and vision is highlighted by Endt, who reminds us that "It is worth noting in this context that the etymology of 'merveille' includes the meaning 'open one's eyes properly' of the Latin word 'mirari.'"[200] Moreover, Breton proclaimed, "'at the present time there is no fundamental difference between the ambitions of a poem by Paul Éluard or Benjamin Péret and the ambitions of a canvas by Max Ernst, Miró or Tanguy.'"[201] Here we find a complex fascination with cephalic vision. Iampolski states that within Surrealism there was an

> emphasis on concrete form, the unique importance accorded to circular objects, served to strengthen the denotative function of the signifier. The Surrealists leveled out the semantic differences between objects that bore any formal resemblance to one another. This is most easily seen when the physical or concrete aspect of a traditional poetic image is emphasized. One such 'concretized' image is the eye. On the one hand, the eye gains a highly poetic resonance (especially in the poetry of Paul Éluard or Breton, where the eyes are often compared to stars). On the other hand, the surrealists were fond of 'eye-play' as a kind of ball game: […] (On the walls during holidays they hang / eyes, toys for the poor.) And elsewhere: 'The beaches are full of eyes without bodies; they can be found along the dunes and on the far-off meadows red from the blood of blooming herds.' And in Breton's *Nadja*: 'I managed to notice the balls of her eyes gleam on the edge of my hat.'[202]

Surrealism scholarship often emphasises this fixation on the eye. Some, like Jay, look at the violence enacted it and point to the Great War as the culprit.[203] However, despite the effect that it had on western society, the war is only part of the equation. Jay's account of ocularity in the war is also skewed: the source on which he leans for his account of the Great War as fought without conventional vision – Eric Leed's *No Man's Land* – is one that fails to account for the new modes of seeing and sensing that the conflict promoted, and over-estimates the extent of traditional modes of visibility in battles during the age of gunpowder.[204] Moreover, the attack is not the only way in which the eye is approached. At times it is simply showcased as it is, but unmissably *mis en valeur* to underline its importance.

---

[198] Antonia Lant, "Haptical Cinema." *October* 74 (1995): 64.
[199] Jay, *Downcast Eyes*, 243.
[200] Endt, "Reopening the Cabinet of Curiosities," 33.
[201] Jay, 243. [Quoted from André Breton, *Surrealism and Painting* (1928) (Boston: MFA Publications, 2002), 3.
[202] Iampolski, "Intertext against Intertext," 168-169.
[203] Jay, *Downcast Eyes*, Chapter Four "The Disenchantment of the Eye: Bataille and the Surrealists."
[204] Eric Leed, *No-Man's Land: Combat and Identity in World War I* (Cambridge: Cambridge University Press, 1981).

Within western cultural history, vision has been privileged above the other senses – and it is often the subject of self-referential address in painting.[205] Representations of interrupted or obfuscated vision with the interwar Surrealist era are seen in various instances. An object's disruption of vision – observed ocularly – is an incitement but can also reveal another reality. For example, Raoul Ubac's (1910-1985) *The Secret Gathering* (Fig. 1.2) and Man Ray and Desnos' *L'Étoile*. In the former, there is only a slightly perceptible outline of the figures, conjuring "optical corrosion," making their human forms indistinguishable – deanthropizing them. In the latter, nearly the film's entirety is shot through a filter lending the viewer the echinoid's perception.[206] In both instances, the artists chose to remove a clear, unobstructed view and created a new narrative through this. Compared to the violence enacted against the eye, for example in *Un Chien andalou*, this was a more pacific approach to interrupting or subverting vision.

---

[205] Examples include Parmigiano's *Self-portrait in a Convex Mirror*, c. 1524, Kunsthistorisches Museum, Vienna; the spyglass in the anonymous portrait of *William George Frederick, Prince of Orange-Nassau, as a Child*, c. 1775, Rijksmuseum, Amsterdam; Odilon Redon's *Eye-Balloon*, 1878, MoMA, as well as Man Ray's *Laboratory of the Future*, 1935, MoMA, which echoes Parmigiano.

[206] The story behind the mythical name of the series, "Battle of the Amazons," also points to the atrocities of war discussed in the introduction. Sidra Stitch, *Anxious Visions: Surrealist Art* (New York: Abbeville Press, 1990), University Art Museum, University of California at Berkley, Exhibition catalogue, 24. Krauss, "Corpus Delicti," 70.

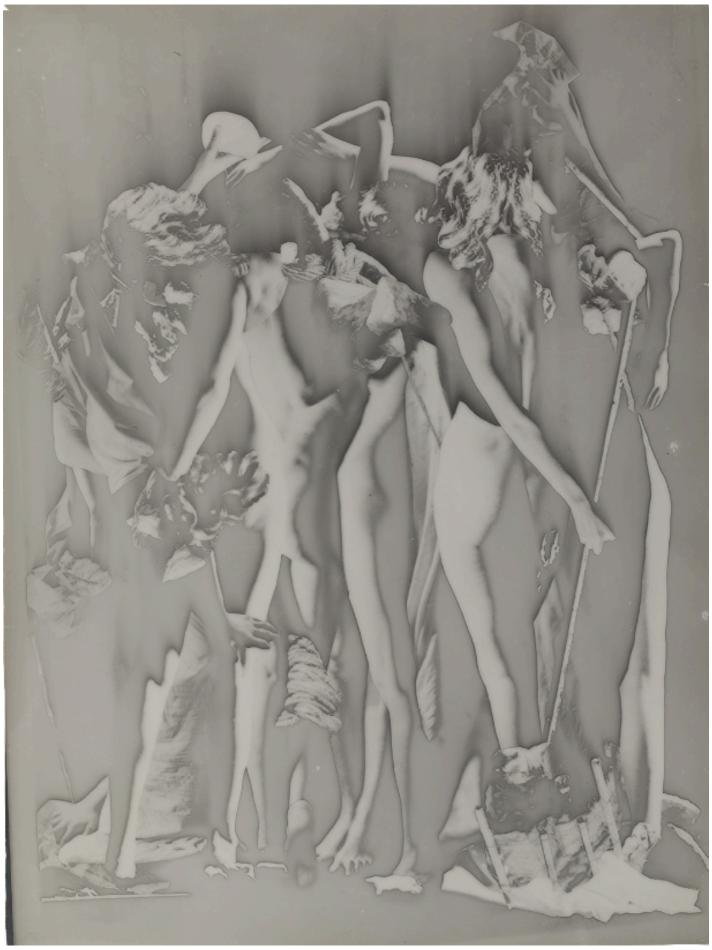


Fig. 1.2, Raoul Ubac, *The Secret Gathering (Solarization)*, 1938, gelatin silver print, 39.7 x 29.7 cm, Museum of Modern Art, New York

Looking at the central idea of both violence against the eye *and* obfuscation, there seems to be an opening of understanding what is at play here within Surrealism. This ocular defilement was not gratuitous violence, but a call upon "the viewer" to look to question the primacy of vision, to subvert ocularcentrism and create new meaning. It is not the acts of violence themselves which are of relevance; the symbolism behind them sends a clear message of a concerted movement to challenge ocularity as the dominant source of sensory perception and to expand into the other senses. Jay states, "Synesthesia, after all, meant the creative confusion of the senses, not the overthrowing of one hierarchy in the name of another."[207] Synaesthesia is not about confusing but rather new, total, integrative modes of sensing. Modernist ideas of it are linked to the experiential and being within the work, sensorially immersive and intermedial.[208] The Surrealists inherited this from its Dada legacy, the elimination of the hierarchy to equalise all sensoria. Using marine animals to accomplish this stems from an impulse to subvert vision's dominance within sensorial hierarchy. Whether by enucleation or starfish, the desire to disrupt ocularcentrism is blindingly clear.

---

[207] Jay, *Downcast Eyes*, 178. I take Jay's use of "confusion" to approximate the French *confondu* in that the senses have melted into each other, or even from its Latin root, confundere, to mingle together. "CONFONDU: Définition de CONFONDU," Centre national de ressources textuelles et lexicales, accessed July 22, 2021, https://www.cnrtl.fr/definition/confondu. Otherwise, this would need Rasula's *History of a Shiver* as a reference point of the role of synaesthesia in Modernism.

The next section consists of a detailed examination of Jay's argument that ocular violence demonstrates the desire to destroy vision. I endeavour to take a step back from my specific focus of interwar Surrealism to consider the historical relationship between culture and the five senses, with a focus on the ocular. Duchamp, as well as other artists mentioned throughout the thesis, are included as a way of connecting the argument to a bigger picture within early twentieth century western art to show that this was not a coincidence nor happening in a vacuum. That there are links to a larger phenomenon and that some artists chose to engage with this phenomenon with sea creatures. This will demonstrate that what Jay describes as destructive desire, I see as a long-standing fascination with human ocularity. I will weave the ends of this narrative into an argument that extends Jay's position to demonstrate my own, that the use of sea creatures in Surrealist art sought to subvert rather than destroy vision's dominance, through extension of perception, while challenging gender roles and anthropocentrism in part through an engagement with materialist science.

Within the realm of thought concerning vision there is often discussion of the person looking, the viewer, and the object of the gaze, the viewed.[209] The Greek myths of Narcissus, Medusa and Orpheus represent vision's impact, depicting instances in which the gaze led to downfall.[210] For Narcissus and Medusa, it was as viewer and viewed that they met their fate.[211] For Orpheus, it was the viewer and the viewed who were punished. This may be seen as an anti-ocular position, but these myths nonetheless underline the importance of vision. Throughout the ages visually focused narratives in western culture have displayed an obsessive desire to examine perceptual capacities from every possible angle, including ways in which other senses can be deployed to disrupt the dominance of vision.

---

[208] For example, Futurists Ginna and Corra who painted directly onto cellulose film, which was then projected onto people wearing white clothing while avant-garde music played. Conversation with Professor Chris Townsend July 21, 2021 and "Ginna – Corradini Arnaldo," Futuristi now, adesso, ahora, maintenant, accessed July 23, 2021. https://www.futurismo.org/ginna-corradini-arnaldo/.

[209] Theoretical frameworks for sight have been established dating as far back as Greek antiquity and reach us in the modern age with Jean-Paul Sartre (1905-1980), in his 1943 work *Being and Nothingness*, and Lacan's series on his four fundamental concepts of psychoanalysis, with the part on *objet petit a* corresponding to the viewed object of desire, or that which possesses alterity and is worthy of want. He addresses the myth of Tiresias as told by Apollinaire and stresses the importance of transference in analysis; how the breasts added by Apollinaire served to further alienate and separate Tiresias from his male status.

[210] Jay, *Downcast Eyes*, 28.

Without delving too far into antiquity to establish the history of visual philosophy, it is nevertheless important to note the framework upon which later theories of historicised vision have been perched. Jay highlights that, "the importance of sight is evident throughout Plato's writings. In the *Timaeus*, for example, he distinguished between the creation of sight, which he grouped with the creation of human intelligence and the soul, and that of the other senses, which he placed with man's material being."[212] The grouping of intelligence and sight together while the latter is separate from the other four senses demonstrates the far-reaching importance of sight to humans and intellectual history.[213] Jay points out, though, that Plato was not extolling the virtues of vision as being purely retinal, but rather an intellectual activity which employs the mind. "We see *through* the eyes, he insisted, not *with* them."[214] Myths underlining the sun's importance to civilisation at times relate back to vision, as Plato argued, "the human eye, he contended, is able to perceive light because it shares a quality with a source of light, the sun."[215] There was also an acknowledgement of the capacities of humans to be less than virtuous with their intellectual abilities. Even though, vision was equally important as the mind itself, it was fallible and subjective, as indicated in his allegory of the cave.

The early modern era emerged with a strong Christian doctrine in the western world, and was accompanied by a secular contemplation of vision in which "the fundamentally iconic basis of modern science itself can be traced to the privileging of vision in medieval thought."[217] During the Renaissance, ocularity's dominance and discipline were triumphed once again by the advent of perspectivalism and other advances.[218]

---

[211] Ovid's tale of Perseus' slaying Medusa also introduces the story of the birth of coral. After his victory, he set the Gorgon's severed head upon a bed of seaweed to wash his hands and the marine plants absorbed her blood and hardened into red "filigree | Of semi-precious stones…" Ovid, *Metamorphoses*, trans. Horace Gregory (New York: The Viking Press, 1958), 116 [Book IV].

[212] Jay, *Downcast Eyes*, 26.

[213] Jay, 26.

[214] Jay, 27.

[215] Jay, 26.

> Broadly speaking, the innovations of the early modern era took two forms: the extension of the range and power of our ocular apparatus and the improvement of our ability to disseminate the results in visually accessible ways. The former meant, inter alia, the perfection of the flat, silver-backed looking glass, most notably in sixteenth-century Venice; the invention of the microscope by Hans and Zacharias Jansen in the late sixteenth century; and the creation of the refracting telescope by several hands shortly thereafter. It also meant an increased fascination with the implications of the camera obscura, that "dark room" with a pinhole on one side projecting an inverted image on its far wall, used as early as the time of Leonardo to help artistic as well as scientific experimentation. […] Disciplining and enhancing normal perception, they remedied what Robert Hooke called the "infirmities" of the senses and led to the "enlargement of the dominion."[219]

The incidental improvements upon vision, Jay says, added to the sensory mode's importance.[220]

René Descartes (1596-1650) had a far-reaching influence on major schools of thought, and his 1637 work, *Optics*, specifically looked at vision.[221] For Jay, "'Cartesian perspectivalism,' in fact, may nicely serve as a short-hand way to characterize the dominant scopic regime of the modern era."[222] With various discourses, on topics such as *Light*, *Refraction*, *The Eye*, *Vision*, and *How to Cut Lenses*, Descartes dissected the eye's different aspects, analysed the available technologies which expanded sight, and examined each facet in great depth. "In the *Discourse on Method*, for example, he explicitly rejected the contention that 'nothing is in the intellect that was not first in the sense,' for 'without the intervention of our understanding, neither our imagination nor our senses could ever assure us of anything.'"[223] This connection of sensoria to thought builds upon Plato, but with newer technologies to expand vision. In a parallel with *Un Chien andalou*, Descartes' own practical research was based on the dissection of a cow's eye; "he moved beyond the physical apparatus of the eye's lenses and vitreous humors to speculate about its link to human visual consciousness. In so doing, he made the celebrated claim that 'it is the mind [*âme*] which senses, not the body.'"[224] This mind-body interrelation of systems predicts the "New Biology" which appeared centuries later.

---

[217] Jay, 39.
[218] Jay, 44.
[219] Jay, 65.
[220] Jay, 66.
[221] *La Dioptrique*. Jay, 69, 70.
[222] Jay, 69-70.
[223] Jay, 73.
[224] Jay, 75.

Lastly, Descartes addressed the third eye, or the pineal gland, as "the locus in the brain of the very interaction" of "what our physical organs sense and what the mind sees."[225] This "non-visual photoreceptor" is its own "independent sensory system not a part of the eyes or any other sense."[226] Jay also notes that the gland is responsible for melatonin, regulated by amounts of sunlight as perceived through our cephalic eyes.[227] Photoreceptors will be revisited in sections addressing starfish and sea urchins.

Like Descartes, Voltaire (1694-1778) connected ideas and mental images with the mind's eye.[228] The Enlightenment's very name is illuminating minds, allowing for visionaries to thrive. The clear visibility of thought is evident in many of the different writers and thinkers from this time; their perspective on many different aspects of life illuminated further reflection and even led to revolution. Before the guillotine's arrival at Place de la Concorde and the subsequent new *République*, there was the Sun King, Louis XIV (1638-1715). The visual signs and ostentatious signifiers within Versailles underlined the importance of being seen in the court. Jay also notes new technological advances in the world of vision. Plate glass, eyeglasses and interior lighting improved drastically, streetlights added to surveillance abilities and large flat-mirrors were beginning to be produced outside of Venice, which led to Versailles' famous mirrored hall, la Galerie des Glaces.[232] (Fig. 1.3)

---

[225] Jay, 76.
[226] Jay, 77.
[227] Jay, 77n179.
[228] Jay, 84.
[232] Jay, 88.

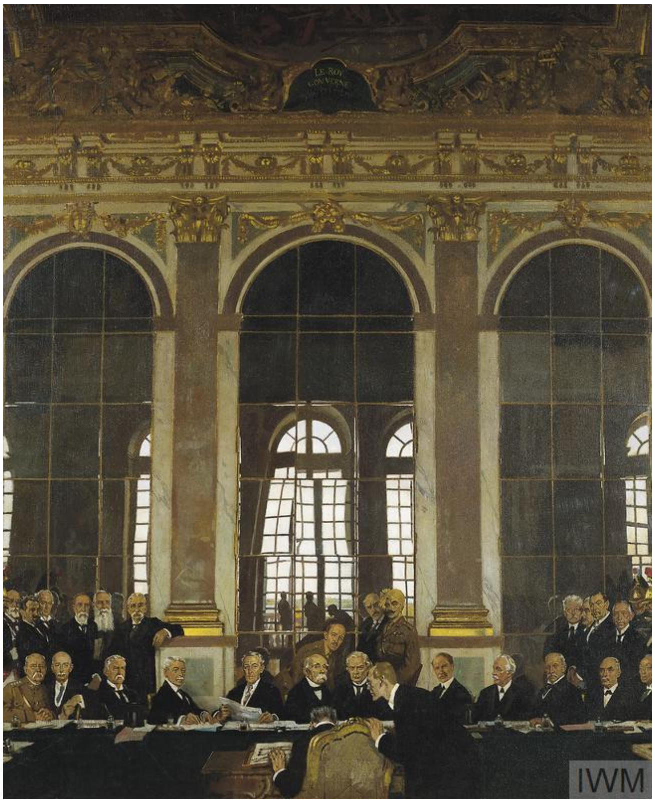


Fig. 1.3, William Orpen, *The Signing of Peace in the Hall of Mirrors, Versailles, 28th June 1919*, oil on canvas, 152.4 cm x 127.0 cm, Imperial War Museum, London

Following the advent of advances in photographic processes in the nineteenth century, great enthusiasm surrounded the new impartial and objective quality of capturing images. "Daguerre's camera was immediately called a 'mirror' of the world…So powerful has the assumption of photography's fidelity to the truth of visual experience been that no less an observer than the great film critic André Bazin (1918-1958) could claim that 'for the first time an image of the world is formed automatically, without the creative intervention of man…Photography affects us like a phenomenon in nature.'"[247] Bazin "extended his realist aesthetic to the cinema as well."[248] Subsequent technologies, like stereoscopes or colour film, were intended to compensate for the "deficiency in the previous ability to record what was 'really' there."[249] Nevertheless, this desire to employ technology to inch forward to an image which is more truthful to the original, goes back to the Renaissance.

---

[247] Jay, 126.

[248] Jay, 126.

[249] Jay, 127. Incidentally, stereoscopic images are of interest to the overall query here in this study because its three-dimensional quality – which is only produced in the mind's eye – is a result of the meeting of the photographic images with the natural technology of the human eye, but there is no way to verify the space with a confirmational act of being able to reach out and touch, creating a proto-virtual reality.

> Because of its rendering everlasting of the image cast by a camera obscura, it has often seemed, moreover, as if photography validated the perspectivalist scopic regime that was originally identified with vision itself after the Quattrocento. The camera eye, as monocular as that of the peephole, produced a frozen, disincarnated gaze on a scene completely external to itself (an effect especially compelling before advances in film speed ended interminable sittings).[250]

This "disincarnated gaze" may have been part of a first step to remove the eye from the body, and while it had been sought after ever since the fifteenth century, it had finally been achieved.

Photography revolutionised vision and was instantly welcomed. "'This discovery partakes of the prodigious. It upsets all scientific theories on light and optics, and it will revolutionize the art of drawing.'"[251] On August 19, 1839, photography was officially presented to the Academy of Sciences, which accepted and immediately placed it in the public domain.[252] However, as Jay states, there was also debate surrounding the essential nature of photography: 1. What is "the relation between photographs and optical truth or illusion?" 2. "Is photography an art? What is the impact of photography on painting and vice versa?" and 3. What is "the impact on society of the new invention?"[253] As would be seen later, Surrealists approached photography as a technology to be manipulated. The movement's inherently subversive nature invited artists to play with optical truth by blurring and doubling it, "painting" on photosensitive paper with rayographs and modulating variables, undermining Bazin's exaltation of the purity of this automatic image of the world.

Despite its acceptance, Jay points to the scepticism which accompanied the advent of photography. Daguerre was known for being a "master of illusion."[254] His dioramas and *trompe l'œil* designs cast doubt upon his Daguerrotype.[255] While there had been a brief, fleeting moment where the photograph was publicly equated with truth, it descended into crisis at the 1855 Universal Exhibition when a photographer from Munich displayed his technique.[256] "Soon it became the norm in portraits to help nature rather than merely record it."[257] Its comparison to vision grew more critical with a discussion of the eye-brain mechanism's superior abilities of spatial organizing, perspective and processing images. Instances of blurred objects were particularly vulnerable, for example, and so the camera's legacy of a "disembodied gaze" as impartial witness of the modern world failed to launch. "In the long run, the invention of the camera may well have helped undermine confidence in the authority of the eyes […]. Rather than confirming the eye's ability to know nature and society, photography could have the exact opposite effect."[258] The Surrealist movement took photography as its own medium, intervening with "the documentary deadpan of the camera" to reveal underlying truth.[259]

---

[250] Jay, 127-128.

[251] Jay, 125. [Quoted from *Gazette de France* January 6, 1839.]

[252] With film, by contrast and perhaps because of its early modes of exhibition, there was scepticism and mistrust within the Academy when presented eighty years afterward.

[253] Jay, *Downcast Eyes*, 125-126.

[254] Jay, 128.

[255] He had this reputation both before and after his invention.

Lastly, aerial photography, previously discussed within the context of the Great War, was introduced in this era. Nadar's hot air balloon images from the early 1860s were incredibly popular with both artists and the public.[260] (Fig. 1.4) This mix of novelty, nature documentary and surveillance would go on to culminate in one of the most useful reconnaissance technologies in the war.

---

[256] Jay, 129. An 1840 self-portrait photograph by Hippolyte Bayard depicts him as a drowned man, demonstrating that it has almost always been played and experimented with as a form of pursuing new realities.

[257] Jay, 129.

[258] Jay, 136.

[259] Rosalind Krauss and Jane Livingston, "Preface," in *L'Amour Fou: Photography & Surrealism*, ed. Jane Livingston and Rosalind Krauss (New York: Abbeville Press, 1985), Hayward Gallery, Exhibition catalogue, 9. Jay, *Downcast Eyes*, 136.

[260] Jay, 145.

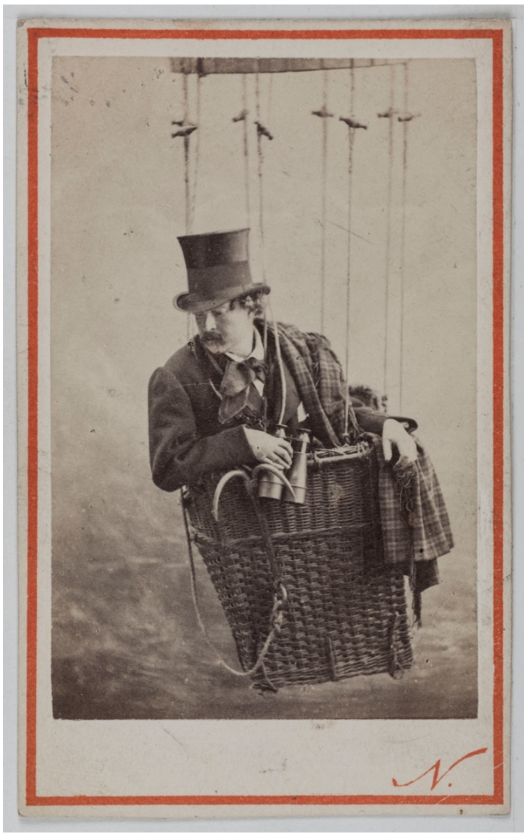


Fig. 1.4, Atelier Nadar, *Portrait of Nadar, (also known as Félix Tournachon, 1820-1910) Literary Man, Photographer and Aeronaut in a Hot-Air Balloon Basket*, c. 1860-1890, albumen print, 8.5 x 5.5 cm, Musée Carnavalet, Paris

On the ground, stop-action chronophotography, developed by Eadweard Muybridge (1830-1904) in Britain and Étienne-Jules Marey (1830-1904) in France during the 1870s and 1880s, demonstrated photography's ability to capture what the eye could not; it also "helped to denaturalize conventional visual experience and uncouple vision from its association with static form."[263] Chronophotography allowed visualisation of processes previously hidden from sight due to the brain's processing speed, and emphasised time; movement and locomotion were understood like never before. Marey's consideration of this combined with the study of underwater movement added another variable to the elements under consideration.[264] Moreover, these captured instances were transformed from fleeting to eternal. Jay relates this to mortality, stating "by violently stopping the flow of time, it introduced a memento mori into visual experience."[265]

---

[263] This discovery helped counteract photography's negative reputation related to the camera's non-retinal faults and shortcomings described above. Jay, 133.

[264] See Etienne-Jules Marey, "Locomotion in Water as Studied Through Chronophotography" (1890), trans. Hanna Rose Shell, in *Making Things Public: Atmospheres of Democracy*, ed. Bruno Latour and Peter Weibel (Karlsruhe, Germany and Cambridge, Mass.: ZKM and the MIT Press, 2005), 327-31.

[265] Jay, *Downcast Eyes*, 135.

The relation between retinality and art of the *fin de siècle* is highlighted in the neo- and post-Impressionist link to scientists such as Charles Henry, Ogden Rood, and Michel Eugène Chevreul regarding colour theory and ocularity. Employed by painters like Robert Delaunay (1885-1941), Georges Seurat (1859-1891) and Paul Signac (1863-1935), they used knowledge of ocular mechanisms to apply contrasting hues to create visual effects. Fauvism, like Henri Matisse's (1869-1954) *Le Bonheur de vivre*, removed linear detail in favour of masses of paint, displaying colours in an unexpected way, with purple, yellow and green skinned figures on a field filled with vibrant hues. (Fig. 1.5)

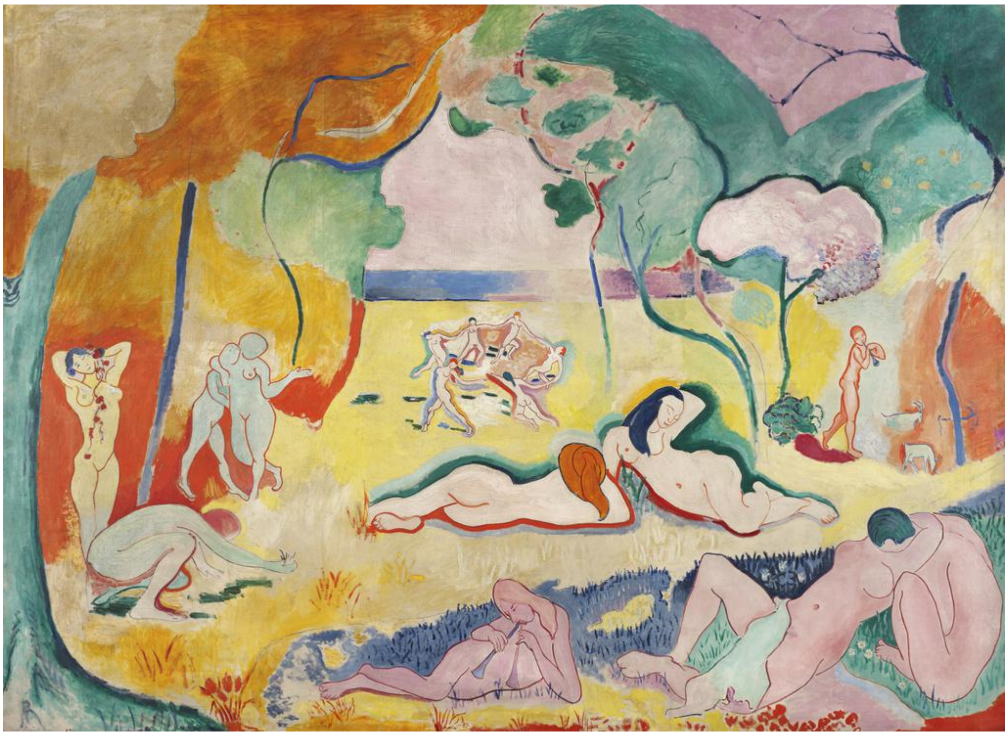


Fig. 1.5, Henri Matisse, *Le Bonheur de vivre*, between October 1905 and March 1906, oil on canvas, 176.5 x 240.7 cm. Barnes Foundation, Philadelphia

As the twentieth century began, many of the nascent movements from the previous century were still on-going, including post- and neo-Impressionism. Many artists overlapped the two centuries, including Paul Cézanne (1839-1906), who introduced a new perspective regarding the visual field's organisation. His desire to include multi-sensorial fields within his paintings while simultaneously presenting all vantage points elevated expectations of what could be seen within an artwork.[268] He is discussed further below. Marcel Duchamp's (1887-1968) work also straddled the two centuries. As Jay points out,

> Duchamp must also be understood as one of the most persistent and imaginative explorers of the conundrums of the visual produced by the technical and artistic breakthroughs of the late nineteenth century. He was, for example, fascinated with the implications of the stereoscope and later devices of three-dimensional illusion such as the anaglyph, which produced optical effects in the brain without any material reality behind them. He also mastered the techniques of anamorphic perspective, which had been virtually forgotten since their heyday three centuries before, and was fascinated with the implications of non-Euclidian geometry. And along with Frantisek Kupka, Robert Delaunay and the Futurists, he drew – most notably in the *Nude Descending a Staircase* – on the chronophotographic experiments of Muybridge and Marey.[269]

Duchamp continued within a legacy of ocularism in his work, but he was unsatisfied with a simple visual experience. Desirous to go beyond a passive reception of ocularity, he "rejected 'the retinal shudder' of conventional art, which included Impressionism and post-Impressionism (with the salient exception of Surrealism)" in favour of expansion.[270] Works like *The Large Glass* and *Rotoreliefs* (Fig. 1.6) pulled vision in two different directions, the former with heavy iconographic symbolism, visual disunity between the sections, transparency and the artist's famous reaction after it was damaged in transit; the latter playing with optics and using the motor reflexes of vision to force the viewer into creating an image with their minds. "Back in Paris after World War I, Duchamp continued […] experimenting with machines that produced optical effects."[271] The *Rotoreliefs*' text-image appeals to the ear and plays with the eye. The artist was also known for his word play which "produced rebuses that both invited and resisted semantic decoding."[272] In his 1926 film *Anémic Cinéma*, which featured these rotating discs, "retinal vision is bracketed by poetic puns which threaten to transform themselves in turn into visual analogues."[273] Despite this, Jay repeatedly names Duchamp as being anti-vision.[274] Looking at Jay's many examples of ocularity in his work, I argue that Duchamp is completely fixated on new ways of seeing. He played with the eye, focusing on it and using it in new ways, displaying forms of positive ocular engagement, not negative.

---

[268] Jay, *Downcast Eyes*, 159.
[269] Jay, 163-164.
[270] Jay, 164.
[271] "MoMA Marcel Duchamp. Rotary Demisphere (Precision Optics)," MoMA, accessed May 19, 2021, https://www.moma.org/collection/works/81432.
[272] Jay, *Downcast Eyes*, 165.
[273] It is also associated with Man Ray, who collaborated with Duchamp and Marc Allégret (1900-1973) in its production. Dalia Judovitz, "Anemic Vision in Duchamp's Cinema as Readymade," in *Dada and Surrealist Film*, ed. Rudolf E. Kuenzli (Cambridge, MA: MIT Press, 2001), 52.
[274] Jay, *Downcast Eyes*, 170. I disagree, but this is not the issue that I would like to pursue in this study.

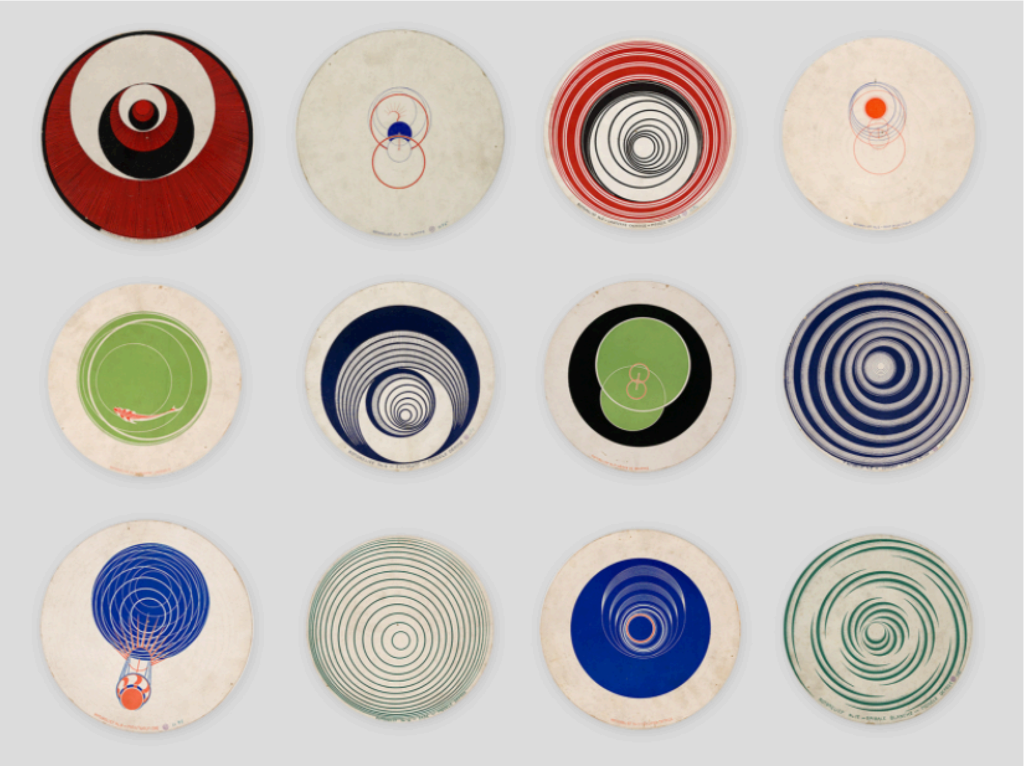


Fig. 1.6, Marcel Duchamp, *Rotoreliefs* Series, 1935, Printed cardboard, Cinémathèque française, Paris

Duchamp's readymade plays into hierarchies and visuality. "Taking to an extreme the incorporation of materials from everyday life in Cubist collages, Duchamp's 'readymades' questioned the difference between representation and presentation, while at the same time mocking the traditional auratic notion of a 'work of art' from the hand of an individual genius."[275] Jay also points to the "visual indifference" of the readymade object as being of utmost importance in achieving what Duchamp wanted to achieve with his work's message.[276] Krauss likens the readymade to the photograph for "its process of production" and also connects Breton's "famous incantatory list of history's Surrealists … [to] a 'found' aesthetic," in which he names those who would have been welcomed to the group, which I argue produces readymade historicization of the movement.[277]

> Chateaubriand is Surrealist in exoticism.
> Constant is Surrealist in politics.
> Hugo is Surrealist when he isn't stupid.
> Desbordes-Valmore is Surrealist in love.

---

[275] Jay, 162.
[276] Jay, 162.
[277] Krauss, *The Originality of the Avant-Garde*, 206. Rosalind Krauss, *The Originality of the Avant-Garde and the Other Modernist Myths,* (London; Cambridge, Mass: The MIT Press, 1986), 206. Krauss, "Photography in the Service of Surrealism," 19.

> Bertrand is Surrealist in the past.[278]

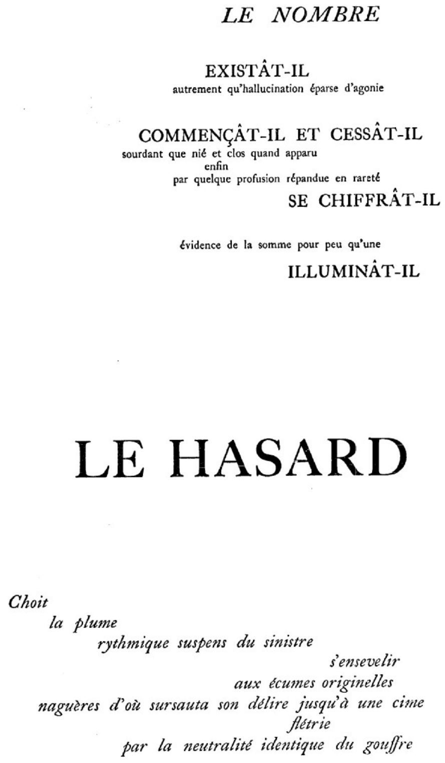
Furthermore, it reveals and draws attention to the historical process in Surrealism. The readymade is revisited in the third chapter and how Agar's collages and archival items serve not only as material for creation, but that their presence at Tate also signifies the object-hood of the item itself.

Even though Stéphane Mallarmé's (1842-1898) "*Un Coup de dés n'abolira jamais le hasard*" (Fig. 1.7) was written in 1897, its visual and graphic nature would bring forth the importance of typography, seen in both Dada and Surrealism. As Jay confirms, "one possible direction implied by 'Un coup de dés' was … [that] words tended to be reduced to nothing but their material thingness on the page, virtually without any communicative, representational, or even aural potential (they were impossible to read aloud)."[280] This created a visual vacuum where only the retinality of the work mattered, and while this could be seen as arguably hyper ocularcentristic, Mallarmé was nevertheless challenging the established hierarchy by fine-tuning the sensorial equaliser, adjusting the senses all the way down, except vision which was turned to eleven.

---

[278] Breton, "Manifesto of Surrealism (1924)," 27.

[280] Jay, *Downcast Eyes*, 179.



LE NOMBRE

EXISTÂT-IL
autrement qu'hallucination éparse d'agonie

COMMENÇÂT-IL ET CESSÂT-IL
sourdant que nié et clos quand apparu
enfin
par quelque profusion répandue en rareté
SE CHIFFRÂT-IL

évidence de la somme pour peu qu'une
ILLUMINÂT-IL

LE HASARD

Choit
la plume
rythmique suspens du sinistre
s'ensevelir
aux écumes originelles
naguères d'où sursauta son délire jusqu'à une cime
flétrie
par la neutralité identique du gouffre

Source gallica.bnf.fr / Bibliothèque nationale de France

Fig. 1.7, Stéphane Mallarmé, excerpt from *Un Coup de dés n'abolira jamais le hasard*, Bibliothèque nationale de France

This "exclusively visual poetry" would go on to be reflected in Apollinaire's 1918 *Calligrames*.[281] These works took linguistic drawing and employed language to create two images: one on the paper in the form of the object drawn by the words' spatial organization and another in the mind's eye based on the words themselves, influencing the Surrealists' image-text paradigm.[282] Apollinaire was also "instrumental in redirecting French poetry away from its Symbolist stress on musicality," which would be later extolled by Goll.[283]

---

[281] Jay, 179-180.
[282] Jay, 237. As well it as a response to the war, seen in its subtitle *Poèmes de la paix et de la guerre*.
[283] Jay, 238.

Automatism – especially in exquisite corpses – produced juxtapositions of concatenated imagery, linked by the unvisualised, producing a new vision. Akin to something as "as handsome… as the chance juxtaposition of a sewing machine and an umbrella on a dissecting table!"[284]

> The relationship between the two objects is not, strictly speaking, metaphorical because the principle of paradigmatic similarity does not work to create a unified symbol. Nor do such images signify through metonymic linkages along a syntagmatic chain, as is the case with realist prose. Instead, their ineffable effect is produced by their very resistance to such traditional modes of signification. Their power, when they succeed, is produced by their evocation of that uncanny "convulsive beauty" Breton would call "the marvelous." They are, he claimed, "endowed with a persuasive strength rigorously proportional to the violence of the initial shock they produced. Thus it is that close up, they are destined to take on the character of things *revealed*."[285]

Jay states that there was a Surrealist "refusal to identify 'image' with a mental representation of an external object, a thing in the world, a mimetic sensation. It referred instead to the revelation of an internal state, […] what Caws has called an 'inscape' rather than an 'outlook.'"[286] This engagement of the mind's eye as separate from retinal perception demonstrates the Surrealist desire to question these two seemingly intertwined visual modes.

---

[284] Comte de Lautréamont, "The Songs of Maldoror, Canto VI, Verse 3," *Maldoror and Poems* (New York: Penguin, 1978), 216–217.
[285] Jay, *Downcast Eyes,* 240.
[286] Jay, 240.

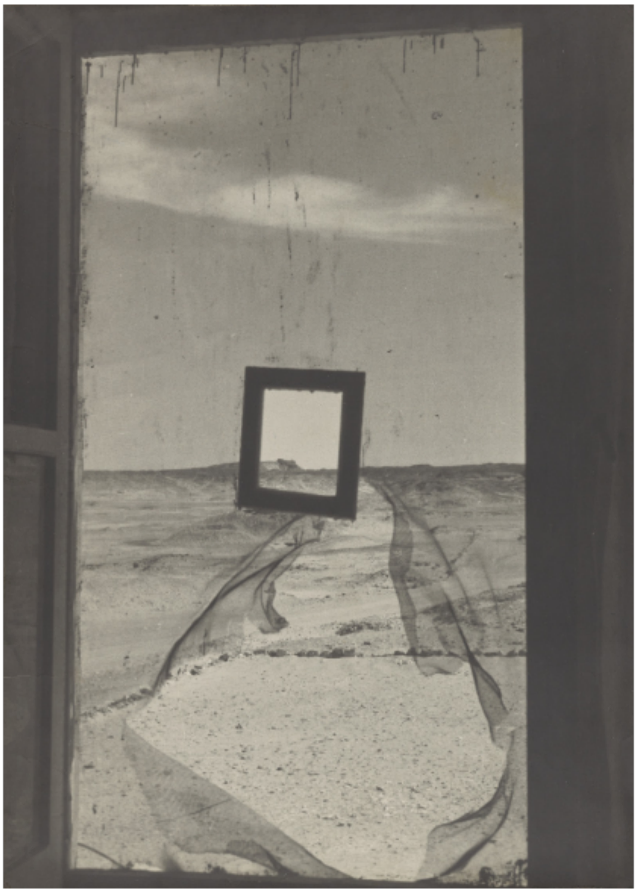


Fig. 1.8, Lee Miller, *Portrait of Space*, 1937, gelatin silver print, 37 x 26.2 cm, The J. Paul Getty Museum, Los Angeles

Windows in Surrealism embody dual ocular realities, which Breton related to visual art, declaring that,

> it is impossible for me to consider a picture as anything but a window, in which my first interest is to know what it *looks out on*, or, in other words, whether, from where I am, there is a 'beautiful view,' for there is nothing I love so much as that which stretches away before me and *out of sight*. Within the frame of an *unnamed figure, land- or seascape*, I can enjoy an enormous spectacle.[287]

Considering this and his manifesto's mind-eye imagery of being struck by the phrase "a man cut in two by the window," as well as works by René Magritte (1898-1967) and Lee Miller (1907-1977), they are what Jay describes as "a transitional or liminal plane between reality and imagination, foreground and background, external and internal worlds…an aperture through which a face could look into the shadowy room of the unconscious."[288] In many of Magritte's works, there is a link between faith in vision and his depiction of impossible or contradictory scenes, which recalls the rupture in the faith of vision following World War I. From *ceci n'est pas une pipe* to shining streetlamps in daylight, these uncanny and paradoxical visions signalled to the observer that they could not trust their eyes to deliver the truth: a betrayal of the image to sow the seeds of a brewing crisis of opticality, or had it always been there? was it really a crisis at all? "As Breton recognized, Magritte 'put the visual image on trial, stressing its weakness and demonstrating the subordinate character of figures of speech and thought.' The eye should not only be in the text, the Surrealists seem to be saying; the text must also be in the eye."[289] This strongly relates to Duchamp's *Rotoreliefs* as well as other text-image works.

---

[287] Breton, *Surrealism and Painting*, 2-3.

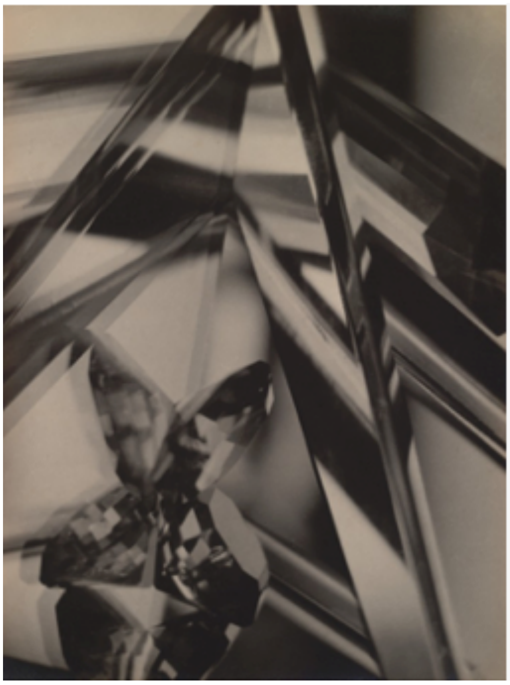
[288] Breton, "Manifesto of Surrealism (1924)," 21. Jay, *Downcast Eyes,* 245.

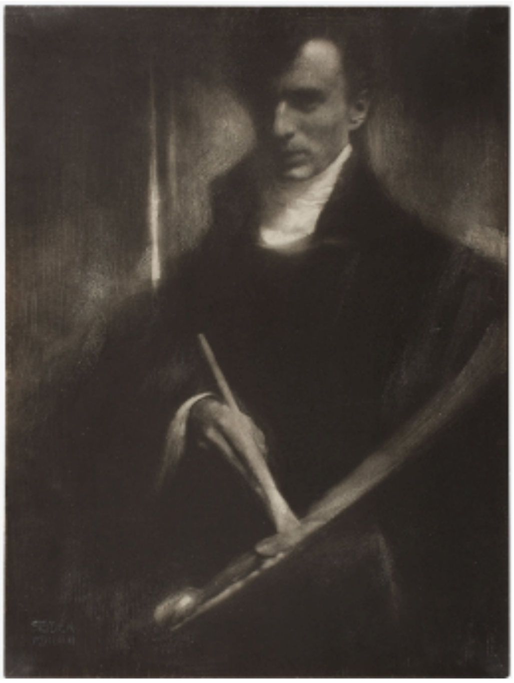
Duchamp's 1920 *Fresh Widow* displays challenged vision, annihilating any possibility of seeing what is beyond, creating claustrophobia in this narrow yet open space. Its name points to grief, and the object itself invokes themes of bereavement. Since the glass panes themselves are occulted, the object itself is in mourning and that a woman – this fresh widow – may have been looking through those very windowpanes in hope of news of her beloved on the front fighting in the war. This object reflected the situation after the war, which left many women widowed and commented on this demographic. The following year's *La Bagarre d'Austerlitz* – whose name suggests brawls as well as Napoleonic battle – replicated the freestanding window with obscured vision. Another consideration of windows and vision is featured in Chapter 2 in the discussion on Robert Delaunay and *Fenêtres*.

The Futurists, Vorticists and other avant-garde movements of the twentieth century's first decades paved the way for experimental uses of photography and cinema within Surrealism. In the Futurist synaesthetic work of Ginna (1890-1982) and Corra (1892-1976) and Anton Giulio Bragaglia (1890-1960) as well as Alan Langdon Coburn's (1882-1966) Vortographs (Fig. 1.9) and László Moholy-Nagy's (1895-1946) photograms, the technological parameters of photographic and cinematic cameras were pushed to obtain results which were outside of temporality and realism. Essentially using the technology against itself to betray Bazin's idealisation of the camera, the abstraction – and in the case of Coburn, the defragmentation of the visual field using flat-mirrors, which would be reproduced in *Ballet mécanique* (1924) – toyed with optical construction and sensation while concurrently re-establishing artistic agency by revoking the camera lens' pre-eminence in determining the final image.[290] The Pictorialist use of photogravure and gum bichromate prints to produce painterly effects – often with visible brush strokes – on the print surface speaks to this as well. (Fig. 1.10) Alfred Stieglitz's (1864-1946) *Camera Work* often featured these images, and the first exhibition at Gallery 291, which influenced Man Ray, promoted the Photo-Secession group.[291]

---

[289] Jay, *Downcast Eyes,* 247.





(Left) Fig. 1.9, Alan Langdon Coburn, *Vortograph*, 1916-17, gelatin silver print, 28.2 x 21.2 cm, Museum of Modern Art, New York
(Right) Fig. 1.10, Edward Steichen, *Self-Portrait with Brush and Palette*, 1902, gum bichromate print, 26.7 x 20 cm, Alfred Stieglitz Collection, Art Institute of Chicago

Photography and cinema were enthusiastically adopted by the Surrealists and appreciated for its lack of historical and contextual baggage, relative to painting. "For Surrealist photography is contrived to the highest degree, and that even when it is not involved in actual superimpositions or solarizations, or double exposures, or what have you. Contrivance, we could say, is what ensures that a photograph will seem

---

[290] Dudley Murphey would use a similar technique in *Ballet mécanique* as the one used by Coburn, with mirrors rigged onto the camera. Much of this knowledge is based on a conversation with Professor Chris Townsend, July 21, 2021.
[291] Foresta, Merry A. "Man Ray." *Grove Art Online.* 2003, accessed 25 Jul. 2021, https://www-oxfordartonline-com.ezproxy.inha.fr:2443/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000053862. Crum, Roger J. "Gallery 291." *Grove Art Online.* 2003; Accessed 25 Jul. 2021. https://www-oxfordartonline-com.ezproxy.inha.fr:2443/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000086736.

Surrealist: why Man Ray's *Anatomies* is so, for example, in the absence of any darkroom manipulation."[292] These techniques – including Rayograms or photograms – gave the artist full control of the medium, removing the influence of the camera as apparatus. "The tricks of today are the truths of tomorrow," wrote Man Ray.[293]

This artistic license created new visions – realised via chemical processes and manual manipulation both before and during printing – as a means of subversion. It defied the avant-garde as a "modernist attempt to wrest a new visual order from the wreckage of Cartesian perspectivalism. First it introduced into the photographic image a kind of temporal deferral or 'spacing,' which might be called internalized montage. Second, it often drew on the explicitly antivisual implications of Bataille's work, rather than on the search for an 'innocent eye' in Breton."[294] The violence against the image that Jay stresses is in fact a restoration of the artistic agency he argues for. Man Ray also adds, "the instrument did not matter – one could always reconcile the subject with the means and get a result that would be interesting."[295] The Surrealists retrieved this by placing themselves between the image and the camera's automaticity. Works by Miller, Eli Lotar (1905-1969), Dora Maar (1907-1997), Boiffard, Man Ray and many others pushed the boundaries of the mimetic qualities of photography to reveal a visual truth which was excavated by the eye itself.

> Surreality *is*, we could say, nature convulsed into a kind of writing. The special access that photography has to this experience is its privileged connection to the real. The manipulations then available to photography-what we have been calling doubling and spacing-appear to document these convulsions. The photographs are not interpretations of reality, decoding it […] They are presentations of that very reality as configured, or coded, or written. The experience. of nature as sign, or nature as representation, comes "naturally" then to photography.[296]

This new visual aesthetic was fully Surrealist, giving a whole genre of the medium its own "look." More importantly, however, was the innovation in technique which created the style; none of which was more important to Surrealist photography than Lee Miller and Man Ray's inventions including solarisation in the 1920s, seen above in Ubac's photograph.

---

[292] Krauss, "Corpus Delicti," 91.

[293] Man Ray, Getty Archives, Series III. Hollywood album, 1940-1948 Box 3, Art & Science Folder, 1.

[294] Jay, *Downcast Eyes*, 250.

[295] Man Ray, *Self-Portrait*, (Boston: Little, Brown and Company, 1963), 164-165.

[296] Krauss, *The Originality of the Avant-Garde*, 113.

Dadaist distaste for the cinematograph's passive effects did not extend to Surrealism. "They restored narrative, character and optical realism, but imbued them with the oneiric effect that sought elsewhere through poetic and plastic means."[297] Jay praises Williams, who "has provocatively interpreted Surrealist cinema precisely as an attempt to subvert the dominant regime of cinematic pleasure."[298] This is seen in *Un Chien andalou*, where "the slitting of the eye is thus a figure for the rupture of the visual pleasure accompanying experiences of imagistic wholeness," or in the frustrated vision of *L'Étoile*.[299] It created visual non-narratives to defy logical construction or linguistic paradigmatic constraints. Recalling Fondane, many of these Surrealist "films" were unfilmable, condemned to their pupal stage as a screenplay, which Jay attributes to both financial and aesthetic reasons.[300]

One way in which Bazin's idealisation of the camera's capacities for truth was embodied in Surrealist film, however, was in Painlevé's films as their own "phenomenon in nature," but nevertheless with copious amounts of creative intervention in nearly all aspects of the filmmaking process. As discussed in the next chapter, Painlevé modified apparatuses to achieve a truth that was stranger than reality but only in appearance. In an article on Painlevé's work, Bazin demonstrates his ability to reconcile the wonderous collision of the scientific and Surreal worlds, extolling Painlevé's ability to reveal what the eye cannot typically perceive to unveil the hidden beauty of nature,

> When Muybridge and Marey made the first scientific research films, they not only invented the technology of cinema but also created its purest aesthetic. For this is the miracle of the science film, its inexhaustible paradox. […] The camera alone possesses the secret key to this universe where supreme beauty is identified at once with nature and chance: that is, with all that a certain traditional aesthetic considers the opposite of art. The Surrealists alone foresaw the existence of this art that seeks in the almost impersonal automatism of their imagination a secret factory of images.[301]

Bazin's appreciation of the science film – which he distinguishes from the documentary in its technical, specialised and didactic nature – as a testament to a purity of vision.

---

[297] Jay, *Downcast Eyes*, 255.
[298] Jay, 258.
[299] Jay, 259.
[300] Jay, 256.
[301] André Bazin, "Science Film: Accidental Beauty," trans. Jeanine Herman, in *Science is Fiction*, ed. Andy Masaki Bellows and Marina McDougall (San Francisco: Brico Press, 2000),146-147.

Breton began *Surrealism and Painting* by proclaiming "The eye exists in its primitive state."[302] In *L'Amour fou* (1937), Surrealist visual veneration returns, endeavouring "to recover the virginal sight, the *jamais vu*, that would be the uncanny complement of the *déjà vu*."[303] Jay connects primitivism and its relation to Modernism, "which often drew on an older, Romantic belief in the power of 'innocent' vision."[304] The purity of vision within the avant-garde demonstrates that the elevation of ocularity must thereby devolve into a simpler form of the visual field, and its physiological dominance must be untangled from western culture.[305] "For Fondane, the pure film […] was 'an individual operation of beginning from scratch, of analysis, of transformation.'"[306] This is accomplished by hierarchical rearrangement that previously displaces ocularcentrality in favour of primordial vision.

Photography was prevalent in Surrealist publications ranging from journals to photo-novels like *Nadja* (1928).[307] Jay links photography to Bataille and his journal *Documents*, citing the number of photographers who had been "excommunicated by Breton," and how they and/or their work had already embodied the Bataillian *informe*, a redefinition of the visual.[308] This also relates to Bataille's *bassesse*, which relate the vertical and horizontal axes of the mouth and anus varying between humans and four-legged animals.[309] ffrench discusses a regression of the state of the eye and includes a general analysis of Bataille's work, provoked by a dislocation of the eye resulting from its trauma in *Story of the Eye*.[310] He presents that there is,

> a movement of regression (regression along the chain of displacements which led to the sublimation of the eye, its construction of definitive object of seduction) of the faculty of vision and thus an undermining of the whole edifice of 'speculative,' 'enlightened' human culture, towards the archaic (in a structural sense), 'base' uses of the eye, to which the eye can be put: baseness of the eye as 'friandise cannibale,' or as viscous, round object ejected from its socket. *Histoire de l'œil* could be read as a narrative of this regression, in various phases: first, the eye not as that which sees but as that which is looked at whence the privileging of the fixed, fascinated stare in the text); second, the refusal of the eye as organ of knowledge and phenomenological orientation; third, the annihilation of the eye as 'window' to the soul of the living body (which we can see in the scene where Simone is haunted by the open eyes of the dead Marcelle – 'Les yeux ouverts de la morte');

---

[302] Jay *Downcast Eyes*, 244. The published English translation shows this as "savage state," from the original "*l'état sauvage*," but I prefer Jay's translation, which better supports my argument. Breton, *Surrealism and Painting*, 1.

[303] Jay, *Downcast Eyes*, 238.

[304] Jay *Downcast Eyes*, 141. As it relates to an exotic "other" and the fetishization of other cultures influenced this nostalgic longing for a more naïve way of seeing is another possible interpretation of this.

[305] See Henri Chomette's *Jeu des reflets et de la vitesse* (1923), *A quoi rêvent les jeunes filles ?* (1924) and *Cinq minutes de cinéma pur* (1925) – and the *cinéma pur* movement.

[306] Christensen, "Benjamin Fondane's 'Scenarii intournables,'" 73.

[307] Krauss, "Photography in the Service of Surrealism," 15; "Corpus Delicti," 82.

[308] Jay, *Downcast Eyes*, 252.

[309] Krauss, "Corpus Delicti," 65.

[310] ffrench, *The Cut,* 30.

> fourth, the ejection of the eye from its socket (the death of Granero) and ultimately the eye displaced downwards to the sexual parts.[311]

Baseness of the eye was a way of knocking it from its Cartesian pedestal. Ocularity is delivered a second blow by the physical lowering by vertical displacement downward from the top of the body to its base and inserting it into the cavities there to give it a new, unclean home. Bataille "developed the concept of *bassesse* to imply a mechanism for the achievement of *informe*, through an axial rotation from vertical to horizontal – through, that is, the mechanics of fall."[312] This displacement of vision is the subversion of the sensorial hierarchical model upon which western culture has structured itself for centuries, and though it is not an outright destruction, it is nevertheless a violent rupture of cephalic vision in favour of an alternative scopic regime. The works by the Surrealist artists which use underwater animals provide surrogate forms of perception, allowing for additional of modes of sensing typically not accorded to the human. With scientific knowledge of these creatures and underwater exploration advancing concurrently, these animals were beginning to be studied in their habitats permitting up-close empirical observation. As this examination of visual western culture ends to move on to the aural, the scope of treatment of the other senses in the next section will not be as historically exhaustive yet will provide insight for how they fit into this sensorial discussion.

Jay states that vision's "nearest competitor" is hearing, with only eighteen times fewer nerve endings in the cochlear nerve than the optic nerve's 800,000 fibres.[313] Certain forms of poetry possess a musical quality which appeals to the ear. The physiological differences that make vision more sensitive to hearing notwithstanding, within the history of philosophy, its legacy has long played second fiddle to vision. "Once the battle against Sophism, which defended rhetoric and the ear, was won, Greek philosophy could elevate a visually defined notion of disinterested, monologic, epistemic truth over mere opinion or *doxa*."[314] Hearing is associated with subjectivity whereas sight connects to objectivity.

---

[311] ffrench, 30.
[312] Krauss, "Corpus Delicti," 64.
[313] Jay, *Downcast Eyes,* 6.
[314] Jay, 26.

One myth derives its noteworthiness from its sensorial-hierarchical exceptionalism. "And the all-seeing Argus, nicknamed Panoptes, is ultimately undone by Pan, whose enchanting music lulls him to sleep."[315] Argus' defeat through sound shows that while it is possible to eclipse vision with auditive powers, it is so exceptional that it deserves its own mythological tale. Merleau-Ponty quotes Hermes Trismegistus underlining the aural in artistic creation, "Art…is truly the 'inarticulate cry … which seemed to be the voice of light.'"[316] Rousseau maintained that humanity progressed with music, "whose melodies in particular could directly reach the heart of its listeners. Thus other senses could come to the aid of sight in overcoming obstacles to transparency."[317] These obstacles Rousseau was seeking to unblock stemmed from humanity's inability to act as the source of its own light, following in the tradition of thought from St Augustine (354-430 CE) and Cartesian philosopher Nicolas Malebranche (1638-1715).[318]

The aural realm also has its place within avant-garde culture, from the Futurist and Dada sound poems to the chosen musical accompaniments in film scores to Breton's overt distaste for music.[319] As Breton said,

> Auditive images, in fact, are inferior to visual images not only in clearness but also in strictness, and with all due respect to a few melomaniacs [passionate lovers of music], they hardly seem intended to strengthen in any way the idea of human greatness. So may night continue to fall upon the orchestra, and may I, who am still searching for something in this world, may I be left with open or closed eyes, in broad daylight, to my silent contemplation.[320]

Breton's poignant appeal for quiet is also covered in his essay "Silence is Golden," where he "expresses himself on the music, in front of which he confesses a quasi-deafness."[321] Though Breton would later shift towards music, during the interwar period he suffered from a case of musical anhedonia.

In Duchamp's *Rotoreliefs* series, the ear was implicated in the works. Their rotation was executed by means of a phonograph, transforming these discs into silent, groove-less records. The accompanying text played with the ear as word games. In *Rotary Demisphere (Precision Optics)*, the "words [were] chosen for the way their sounds echo one another: *Rrose Sélavy et moi esquivons les ecchymoses des esquimaux aux mots exquis*."[322] (Fig. 1.11)

---

[315] Jay, 28.
[316] Merleau-Ponty, "Eye and Mind," 182.
[317] Jay, *Downcast Eyes*, 92.
[318] Jay, 192.
[319] For more on Dada, music and anti-music as well as the key figures including Georges Ribemont-Dessaignes, Marcel Duchamp and Francis Picabia, see Peter Dayan's *The Music of Dada: A Lesson in Intermediality for Our Times* (London: Routledge, 2018).
[320] Jay, 244. [Quoted from Breton, *Surrealism and Painting*, 1-2.]
[321] "Silence d'or" published first in English in 1944 and later in French in 1950 during his time in the United States in the March-April 1944 issue of the periodical *Modern Music*. My translation. "Silence d'or (André Breton)," Association Atelier André Breton, accessed June 4, 2021, https://www.andrebreton.fr/work/56600100198010.

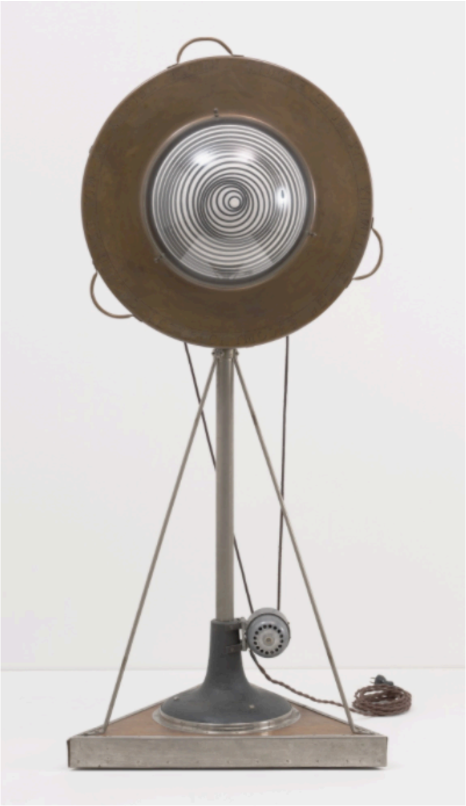


Fig. 1.11, Marcel Duchamp, *Rotary Demisphere (Precision Optics)*, 1925, mixed media, 148.6 x 64.2 x 60.9 cm, Museum of Modern Art, New York

The advent of sound film was "perceived by many as traumatic or catastrophic, its absolute nature signalled by the speed of implementation, in contrast to the uneven development of techniques like colour and deep focus."[323] More than "a prosthesis in which a missing organ is supplied,"[324] it resulted in a paradigm shift which extended cinema from purely visual into the multi-sensorial, with "embodied voice."[325] Jay claims, "there was little, if any, explicitly Surrealist musical composition."[326] This did not mean, however, that Surrealists were indifferent to music. In addition to Painlevé's painstaking attention to soundtracks, Surrealist Georges Henein wrote on hot jazz in 1935 and praised "its defining trait as 'a direct assault on the senses,'" evoking total-body synaesthesia.[327] As many of us have experienced, music can have a bodily effect, from giving the listener chills to an overwhelming urge to move, adding in an overlapping of these sensations, even for those who are not endowed with true synaesthesia. The corporeal feeling verges into the realm of touch, which is discussed in the following section.

---

[322] "MoMA Marcel Duchamp. Rotary Demisphere (Precision Optics)."
[323] Armstrong, *Modernism, Technology and the Body,* 221.
[324] Armstrong, 222.
[325] Armstrong, 246.
[326] Jay, *Downcast Eyes*, 238.

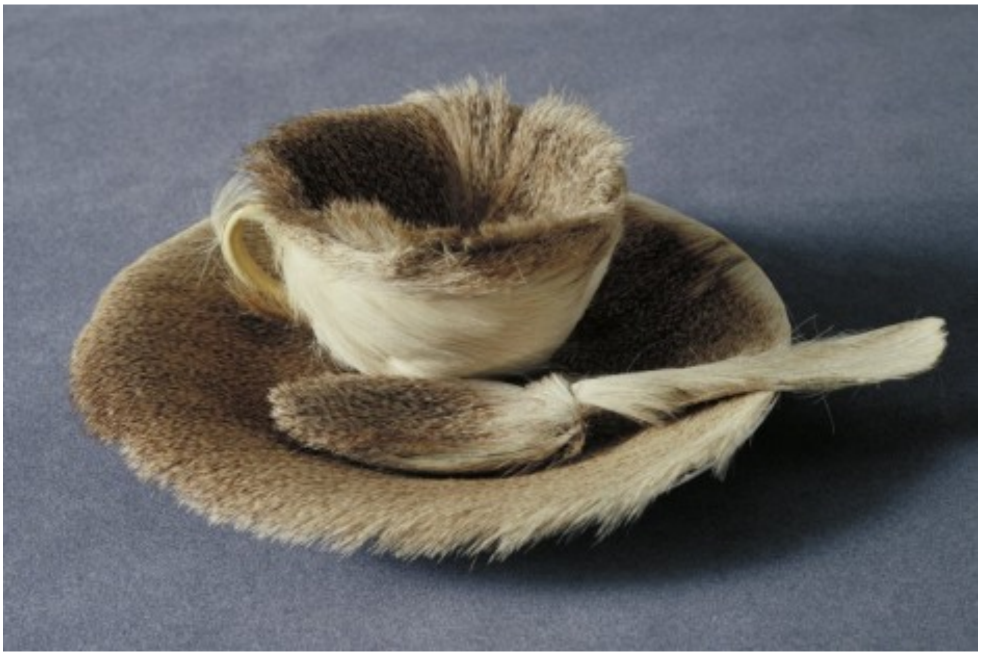


Fig. 1.12, Meret Oppenheim, *Object*, 1936, mixed media, 10.9, 23.7, 7.3 x 20.2 cm, Museum of Modern Art, New York

Touch directly relates to the body itself. As Komel explains Aristotle's work, "*De Anima* understood touch mainly as a bodily sense, although privileged in the fact that all the other senses could be understood as forms of tactility, thus developing the theory of a *common sense* precisely based on touch."[328] The senses reunited with touch relates to a commonality of perception in the mind: the sensation of being "struck" by vision or a sound, the taste of something foul or a smell that can knock a person over. The idea of the haptic, as related by Marks, comes from Aloïs Riegel's own study of art history and its relation to the demise in tactility in art.[329] The tactile nature, for example, of Meret Oppenheim's (1913-1985) *Object* (Fig. 1.12) stimulates the fingertips. Even the eyes anticipate the sensation; what is expected to be the smooth, cold porcelain typical of a teacup has been metamorphosed. Upon contact with the mouth, the gazelle fur will also be tasted. Komel notes, "until modernity […] only the Aristotelian variant remains – the one that understands touch as the common sense of all bodily senses."[330]

---

[327] James Leo Cahill, *Zoological Surrealism: The Nonhuman Cinema of Jean Painlevé* (Minneapolis: University of Minnesota Press, 2019), 278. [Quoting Georges Henein, "Hot Jazz" (1935), in *Black, Brown and Beige: Surrealist Writings from Africa and the Diaspora*, ed. Franklin Rosemont and Robin G. D. Kelley (Austin: University of Texas Press, 2009), 152.]

[328] Komel, "A Touchy Subject," 116-117.

[329] Marks, *Touch*, 4.

Touch's absence can be seen as well.

> Peter Nicholl's comments on Blaise Cendrars are useful here. Noting the constant 'dismemberment of the body' he describes 'a sense of the modern as the occasion for a spectacular disembodiment – once penetrated and expanded by capital, the body no longer offers itself as a privileged object of representation, but exists instead as a source of discrete sensory intensities which elude symbolization.'[331]

Armstrong's addressing of Cendrars, is relevant to this thesis both for his 1946 work *La Main coupée*, an autobiographical work about his experience in the French Foreign Legion in World War I, as well as the fact that he was wounded in this conflict and lost his right arm. Ernest Hemingway's (1899-1961) comment that he "might well be a little less flashy about his vanished arm," unites vision and the display of tactile incapacity, especially with an appendage central to touch, the hand.[333] The severed hand will be revisited below and beyond.

The reclassification of coral from vegetable to animal in the eighteenth century directly stems from our relationship to the sense of touch. While working in Guadeloupe, Jean-André Peyssonnel observed "that touching […] a coral caused its 'flowers' to retract. Sense of touch is a property usually associated with animals, and Peyssonnel began to doubt that the corals were plants."[334] Another tactile experience relates to the techniques associated with Surrealism: collage, decalcomania, coulage and frottage, which "also challenged the integrity of optical experience. Their tactility invoked the hegemony of touch over vision, which Diderot had defended during the Enlightenment."[335] Frottage especially so; its translation is the act: rubbing and features an inherent "tactile pressure."[336] These techniques produced textures which invited the hand to touch its surface and engage with the work in its tactility.

---

[330] Komel, "A Touchy Subject," 117

[331] Armstrong, *Modernism, Technology and the Body,* 95.

[333] Ernest Hemingway, *A Moveable Feast*, London: Arrow Books, 2009 [1964], p 74.

[334] Susannah Gibson, "Living Rocks: the Mystery of Coral in the Eighteenth Century," in *Coral Something Rich and Strange*, ed. Marion Endt-Jones (Liverpool: Liverpool University Press, 2013), 63.

[335] Jay, *Downcast Eyes*, 247-248.

[336] Susik, *Surrealism and the War on Work*, 160.

Regarding taste and its relationship to art and literature in the modern era, Proust's madeleine comes to mind. As also discussed in the introduction regarding sensing time, *Swann's Way* is a testament to the inextricable ability for a moment of supralingual perception to transport the mind back in time. Proust had a distaste for the camera, calling photography an "'involuntary memory,'" the same term he used to describe the madeleine scene in the book for its immediacy of the moment of reminiscence.[337] This recalled moment with the cake remains an indelible mark on the relation between the arts and the gustatory system.

"Smell is the most mimetic of the senses because it acts on our bodies before we are conscious of it."[338] This involuntary invasion before we are even aware it is occurring speaks to the importance of the questioning of our sensory modes during the interwar era. In addition to Duchamp's modified readymade, *Belle Haleine, Eau de voilette* (1921) (Fig. 1.13) and Péret's coffee roasting machine at the 1938 International Surrealist Exhibition in Paris, the sense of smell in avant-garde works was sometimes incidental, such as the fish which was affixed to a Miró painting at the International Surrealist exhibition in London. Buñuel and Dalí's rotting, enucleated donkeys in *Un Chien andalou* and the scenes of decaying human bodies in Buñuel's *L'Âge d'or* were part of a legacy of putrefaction within the avant-garde.

---

[337] Jay, *Downcast Eyes*, 183.
[338] Marks, *Touch*, 115.

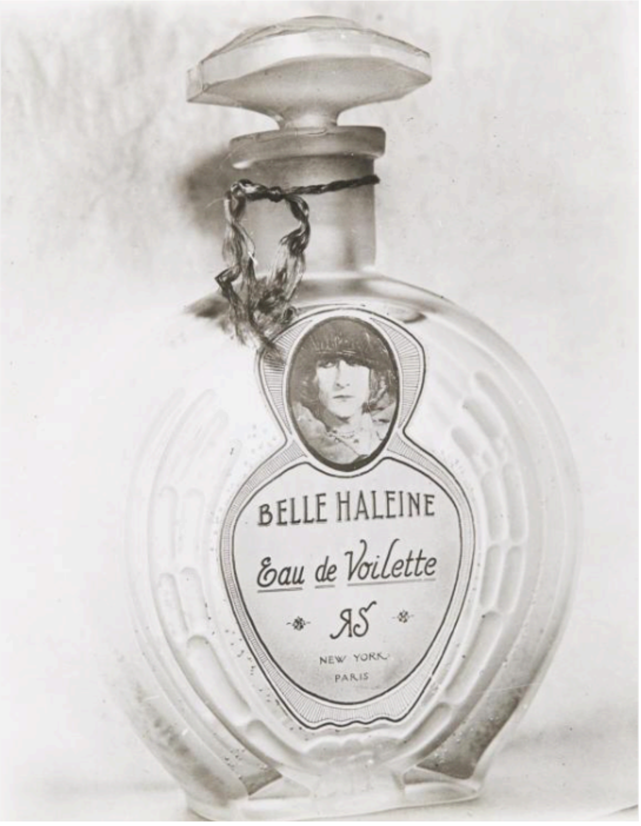


Fig. 1.13, Marcel Duchamp, *Belle Haleine, Eau de Voilette*, 1921, gelatin silver print, 11.4 x 8.9 cm, Philadelphia Museum of Art

Buñuel names Apollinaire's *L'Enchanteur pourrissant* as influential to his work.[339] Completed in 1909, it featured themes of decomposition and "typically Surrealist motifs," which were "older than Apollinaire, who merely elaborated them further."[340] Baudelaire and Hugo are relevant predecessors whose vestiges of decay and decomposition influenced "Surrealist verse, above all the poetry of Benjamin Péret, who was particularly fond of the motif of decay."[341] Iampolski highlights the theme of the rotting donkey in Dalí's work prior and subsequent to *Un Chien andalou's* release, describing them as a "constant feature" in his work.[342] This olfactory assault functions as memento mori, demonstrating the resulting physiological effects upon the body as organic material.

---

[339] Buñuel, *My Last Breath*, 58.
[340] Iampolski, "Intertext against Intertext," 180-181.
[341] Iampolski, 181-182.
[342] Iampolski, 180, 186.

Smell's ability to trigger memories superior to audio-visual cues also speaks to its power; this phenomenon is likely due to the overlapping in the brain's olfactory cortex and the limbic system, which is responsible for emotion and some memories.[343] Marks synthesises this in the claim, "smell has a privileged connection to emotion and memory that the other senses do not."[344] Olfactory triggers serve as instantaneous communication which are sensed first and intellectually processed after, especially when we are driven to name or articulate the odour. Most importantly, however, is that "these memories are embodied and multisensory, so that watching a movie can awaken memories of touch, smell, taste, and other 'close' senses that cannot be reproduced as sound and visual images can."[345] This speaks to smell's power, its relation to haptic vision through memory and relates it back to the body's others sensory modes.

This section on sensory modes within visual culture closes to lead to the next section of this chapter, which looks at *Story of the Eye* and *Un Chien andalou* in greater detail to trace the aspects of ocular violence that have marked the scholarship of Surrealism. Beginning with Bataille's novella, I will highlight elements which reflect a desire to disrupt ocularcentrism. After that I will conduct a similar examination of Buñuel and Dalí's film to show how these two, in chains of metaphors, syntagms – as well as a display of metamorphosis and accelerated evolution – challenged hegemonic structures.

[*Histoire de l'œil* – 1928]

The novella *Story of the Eye* was written in 1927 and published in 1928 by Bataille under the pseudonym Lord Auch, which signified "God is in the toilet."[346] It was "so transgressively pornographic that it never appeared under Bataille's name during his lifetime."[347] This section is devoted to its place within a Surrealist antiocular discourse as a structural underpinning for the use of marine animals in other Surrealist works. This demonstrated the desire not to destroy vision but to expand it and reshuffle the hierarchy of the senses, reflected in the literal degradation and debasing of the eye by lowering it vertically in space into "unclean" cavities further down on the body.

---

[343] Marks, *Touch*, 119-120.
[344] Marks, 120.
[345] Marks, 122.
[346] ffrench, x. "Lord *aux chiottes*"
[347] Jay, *Downcast Eyes,* 219.

Bataille wrote *W.C.* in 1926, which "was never finished, its fragments burned by the author."[348] Discussed in a section at the end of *The Story of the Eye*'s English translation, "Significantly, it contained a drawing of an eye, the eye of the scaffold, which he called in tribute to Nietzsche 'the Eternal Return.'"[349] Bataille describes as a "drawing for W.C. showed an eye: the scaffold's eye. Solitary, solar, bristling with lashes, it gazed from the lunette of a guillotine."[350] The lunette here goes beyond the visual and into the bathroom, being the French name for the toilet seat. Bataille recounted that he oftentimes watched the change in expression in his blind, paralyzed and syphillic father's eyes, as he unashamedly relieved himself in a specially made chair which featured a toilet attachment.

The eye takes a prominent place among the novella's other characters: the narrator, Simone and Marcelle. It changes form throughout the story, becoming an egg, a saucer, a bull's testicle, various astral bodies, buttocks, only appearing as itself in the most crucial and intense moments.[351] ffrench describes the significance of these chains,

> The force of the text lies undoubtedly in the transgressive eroticism it portrays, but the reader must also take into account the structural nature of this text, the way that the narrative seems generated not by any psychological depth in its characters, any motive, or any search for the resolution of an enigma, but by the structural permutations of a series of objects with each other and with the body of Simone.[352]

It "is not the story of its characters, but the story of those displacements that occur across a chain of signifiers beginning with the eye, and their permutative intersections with each other."[353] The narrative is the chain of objects, as they metamorphise into each other, with Simone's body acting as a catalyst within the chain. This repetition of the motif of these ovoid objects which circumnavigate the story demonstrate a valenced orbit around the eye-nucleus.

This is the story of the eye, just as much as these other objects. Jay relates Barthes' interpretation on the interchangeability of these objects and that,

---

[348] Jay, 218.
[349] Jay, 218-219.
[350] Georges Bataille, "W.C. Preface to *Story of the Eye*," in *Story of the Eye*, trans. Joachim Neugroschel (San Francisco: City Lights Books, 1987), 98.
[351] There is a second chain of liquids as well; ffrench gives a wonderful treatment of the subject starting page 95.
[352] ffrench, *The Cut,* xi.
[353] ffrench, 7.

> the tale is motivated less by the increasingly bizarre couplings of its ostensible protagonists than by the metaphoric transformations of the objects on which they fetishistically focus. The most notable series is that linked to the eye itself, which is enchained with images of eggs, testicles and the sun…According to Barthes, none of these terms is given any privilege, none has any foundational priority: 'It is the very equivalence of ocular and genital which is original, not one of its terms: the paradigm *begins* nowhere…Everything is given on the surface and without hierarchy, the metaphor is displayed in its entirety; circular and explicit, it refers to no secret.'[354]

Barthes groups this set around the eye. There is no hierarchy with these objects, and they possess no more symbolism than another. The reader is forced to become amnesic faced with their auto-substitutional quality. Jay summarises that this "points to one important implication of the novel: that whether understood literally or metaphorically, the eye is toppled from its privileged place in the sensual hierarchy to be linked instead with objects and functions more normally associated with 'baser' human behaviour. This is, indeed, the most ignoble eye imaginable."[355] To take the eye – with its nobility within the sensorial hierarchy – and introduce its *bassesse* does not necessarily cast it into the lowest of the senses. It does, however, recalibrate that structure and change the dynamic of the human sensorial experience.

The climax of the story occurs when the priest is enucleated and Simone inserts the eye into her anus and then her vagina. After the eye's rectal-gynaecological tour, the scene closes with a vivid depiction of the narrator's view of Simone's vulva, with streaming urine flowing onto her thighs, semen caught in her pubic hair and the priest's eye looking out from her vagina, which recalled their friend-*cum*-plaything, the now-departed Marcelle.[356] The narrator proclaims, to have "found myself facing something I imagine I had been waiting for in the same way that a guillotine waits for a neck to slice."[357] This guillotine – echoing *W.C.* and the *acéphale* – paints a vivid description as it describes the mounting sensation of dread and excitement that has now reached its peak. No indication is given of the eye's destiny as the story jumps to the trio's escape towards Gibraltar, disguised as Spanish priests – seen again in *Un Chien andalou*, creating narrative continuity.

However, as ffrench states, despite all of these violent, carnal acts, the story is not about bodies themselves, but "about the desublimation of the body as an idea, as form."[358] The bodies also stand in for a larger meaning that he describes as recognising the "figure of the eye as an independent organ divested of the corpus in which is played a sublime role…it is about the operation of the *cut* which severs the organ from the coherent body, a play around that severance."[359] This supports my argument that this defilement is not literal and represents more than anti-ocularity, leading to de-anthropocentric.

---

[354] From his essay "The Metaphor of the Eye," Jay, *Downcast Eyes*, 220-221.
[355] Jay, 221.
[356] Bataille, *Histoire de l'œil*, Gallimard, 92-93.
[357] Bataille, *Story of the Eye*, 84.
[358] ffrench, *The Cut*, 22.

The repetition of metonyms relates to Bataille's fixation on these objects indicates the legacy of western ocular culture. The writer ostentatiously displayed them to the extremes, but they are nevertheless part of an overarching theme of disrupting the primacy of vision in the quest for alternative sensory modes.

> The text would inscribe a violent rupture in the history and structure in the *act of seeing*; it would narrate the deformations to which the eye, privileged organ of human knowledge and perception, is subject. If the central position of the eye and its culture is partly what defines the 'human,' *Histoire de l'œil* would narrate the transgression of the law which marks off the eye from its carnality, from its qualities as an object.[360]

The ocular violence is symbolic in its active pursuit to subvert ocularcentrism and anthropocentrism.

Another instance of enucleation, which foreshadows the penultimate scene, is when the matador's eye meets the bull's horn,

> Until he saw the famous scene of the slit eyeball in the Surrealist masterpiece *Un Chien andalou* by Dalí and Buñuel in 1928, about which he wrote enthusiastically in the pages of *Documents*, he had no more vivid image to express his obsessive fascination with the violent termination of vision. The enucleated eye was a parodic vision of the separation of sight from the body characteristic of the Cartesian tradition; no longer able to see, it was then thrust back into the body through vaginal or anal orifices in ways that mocked in advance Merleau-Ponty's benign reembodiment of the eye in the 'flesh of the world.'[361]

Jay's underlining of the separation of vision from the body creates new parallels between ocular violence and beheading. By horn, hand or guillotine, the body is separated from ocular vision violently and definitively, *acéphalement*.

The novella successfully recreated the polysensorial as it highlighted the characters' experiences ranging from the euphoric to the excruciating, described in ways which touch all five senses. It was an exploration of non-ocular modes of perception, privileging other sensoria. As Teixeira underlines,

> Certainly, the eye, eponymous, presides over this "story," but beyond its metaphors and metamorphoses, this eminently sensualist – even sensationalist and playful – text, operates a great and savage mingling of the senses with everything, everything they perceive and incorporate - and few texts will have recounted such hyperesthesia, such furious excitement and exaltation of all the senses at the same time, without sublimation,

---

[359] ffrench, 22.
[360] ffrench, 31.
[361] Jay, *Downcast Eyes*, 220.

> without hypostasis, without going beyond. This story of violent desires and phantasies is indeed full of images, both vague and precise, insistent, often paroxysmal, sometimes oxymoronic, of notations, both clinical and insane, linked to the senses, all awakened, alert, as sharp, angry, wild, both intoxicated and aghast. At the party: sight of course, but just as much touch, hearing, smell, taste. A celebration, a veritable apotheosis and outburst, unreasoned [...] Bataille puts us face to face with the senses, altered, torn apart, facing their tasks, their deviations, be it sensations or meanings.[362]

This demonstrates not a destruction of sensoria, but their de-hierarchisation.

Other works display influence or reciprocity in their parallels with Bataille's short story. "Such photographers as Boiffard, Bellmer and Ubac subjected the body to a series of violent visual assaults reminiscent of *Story of the Eye*, producing images "of bodies dizzily yielding to the force of gravity; of bodies in the grip of a distorting perspective; of bodies decapitated by the projection of shadow; of bodies eaten away by either heat or light."[363] Segmented bodies and disrupted fields of vision were reflected in the work of this era, pointing to a general taste for fragmented corporeality.

> The cultural context in which *Histoire de l'œil* appears is historically 'covered' by the movement of Surrealism. André Breton's *Nadja* appears in the same year (1928) as Louis Aragon's anonymous erotic text *Le Con d'Irène*, like *Histoire de l'œil* published by René Bonnel and illustrated by André Masson. Dalí and Buñuel's film *Un Chien andalou* appeared early in 1929. Breton's *Manifeste du Surréalisme* had appeared [four] years previously, and many of Bataille's associates (Masson, Leiris, Tual) had rallied to the Surrealist movement. The history of the dissidence from the movement is well documented, and the role of the review *Documents*, in which Bataille was to play a prominent part, as a forum for an explicitly materialist, desublimatory critique of Surrealism has been celebrated.[364]

Given the proximity of many of these writers on a creative and personal level, this mutual influence flowed within these circles. As discussed in the next section, and seen throughout this thesis, collaborations were an integral part of Surrealist art. While sometimes these projects were short-lived and fleeting, *Un Chien andalou*, would go on to be a defining moment within Surrealism. Its iconic scene in the prologue has earned an anti-ocular reputation, but there is more than gratuitous violence for the sake of shocking the public.

[*Un Chien andalou* – 1929]

In Buñuel's preface for the screenplay of *Un Chien andalou*, the filmmaker positioned himself and the film. "It expresses, without any reservations, my complete adherence to Surrealist thought and activity. *Un Chien andalou* would not exist if Surrealism did not exist."[365] The film, which he also describes as "a desperate, impassioned call to murder," is best known for the eye-slitting scene and is one of the most well-known works of Surrealist cinema.[366] However, the history of cinema at this point, though not even 35 years-old, already featured ocular violence, such as Georges Méliès' (1861-1938) 1902 proto-science fiction film *A Trip to the Moon*, where a rocket is launched into the moon's eye, and Sergei Eisenstein's (1898-1948) 1925 film *Battleship Potemkin* where the military attack on the Odessan people features a close-up of a woman shot in the eye by the Cossacks.

---

[362] Teixeira, "L'œil de Gilles de Staal ou l'impossible Bataille," 431-432. (My translation.)

[363] Jay, *Downcast Eyes*, 252-253. [Quoted from Krauss, "Corpus Delicti," 44]

[364] ffrench, *The Cut*, 60.

[365] Luis Buñuel, "Un Chien andalou," *La Révolution surréaliste* 12, (December 15, 1929): 34. (My translation.)

A tri-partite relationship exists between vision, splicing and cinema to form montage, which ties in directly with some of the themes of this thesis, and while montage is not one of the main elements of inquiry, its significance deserves recognition. As ffrench states, "Technically, the filmic cut is that interstice between shots which itself is not seen, the instant which interrupts vision and remains invisible, but which enables the *montage* of images and the production of meaning."[367] In the eye-cutting scene, which takes place at the beginning, the woman is shown again throughout the remainder of the film as a main character. Yet despite having had her – really a calf's, à la Descartes – eyeball sliced open, she is in perfect condition and completely unscathed.

> Variously interpreted, inter alia, as a simulacrum of sexual cruelty against women, a symbol of male castration anxiety, the conception of an infant, an indication of homosexual ambivalence and an extended linguistic pun, the act's literal dimension has sometimes been overlooked. That is, the violent mutilation of the eye, that theme so obsessively enacted in Bataille's pornographic fiction, is here paradoxically given to the sight of those with the courage not to avert their eyes from what appears on the screen.[368]

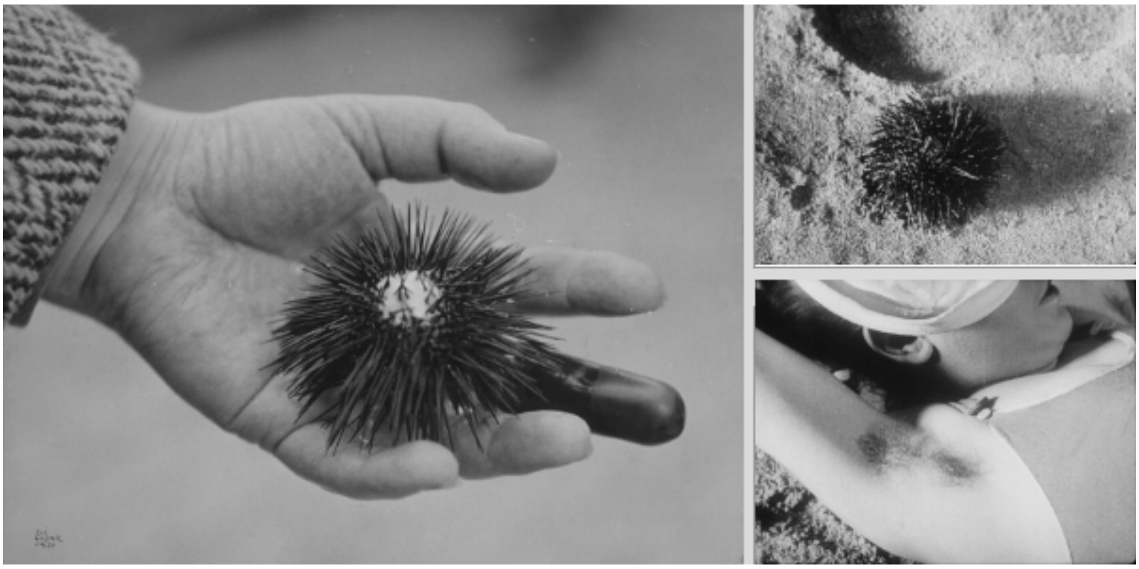
The film has no narrative, its ordered intertitles highlight the malleability of time. There is no linearity, but given the timestamps, there is a way to see that the cutting of the eye, which happened between "Once upon a time" and "Eight years after," the filmmakers did not feel beholden to consistency within the storyline. Moreover, there is the absence of the cutter's watch, present when he was sharpening the razor blade, but when the violence occurs, the watch – time – is gone. Another possibility is that since the scene takes place during the part of the film within the category of a fairy tale, that there is "make believe" phantasy taking place.

---

[366] Buñuel, 34. (My translation.)

[367] ffrench, *The Cut,* 4.

[368] Jay, *Downcast Eyes*, 258.



(Left) Fig. 1.14, Eli Lotar, *Untitled*, 1931, silver gelatin print, 29.9 x 39.3 cm, Centre Pompidou, Paris
(Top & Bottom Right) Figs. 1.15 & 1.16, Luis Buñuel and Salvador Dalí, stills from *Un Chien andalou*, 1929

Within the time of those following eight years, she perhaps received a prosthetic eye to replace the one cut, allowing for the story to continue without interruption or visual distraction due to the prosthetic's discreet quality.[369] Why is it that after moments of trauma, the characters appear to be unscathed? At the very end of the film, there is, however, a scene with two figures planted into the sand, depicted at the end of all the trauma that they had endured. According to Buñuel's screenplay, varying slightly from what is seen in the film, there are the two figures buried up to their chests in the desert sand "blind, clothing torn, devoured by rays of sunlight and by a swarm of insects."[370] There is also the appearance of a sea creature in the film. A sea urchin which appeared – echoing the hand with a prosthetic finger in the photograph by Lotar, Painlevé's cameraman – transformed from the woman's underarm hair which then transforms again into an iris shot showing an androgynous person poking a severed hand – the result of another cut after the fact.[371] (Figs. 1.14, 1.15 and 1.16) The ocular reference of the iris shot technique turns the screen into a dilating pupil that expands at the centre of the iris to allow light in. As ffrench says about the chain of objects, "Dalí and Buñuel's image shows the operation whereby the eye of desire is cut *horizontally* across, and this horizontal cut then becomes a part of a structural play of images; it is continuous, in the film, with the horizontal movement of a cloud across the moon and is hinged, so to speak, into this image through the filmic succession of images."[372] While Bataille is more concerned with the vertical axis, *Un Chien andalou* is horizontal.

---

[369] Paris had been the world's centre for glass eye manufacturing between the late eighteenth and mid-nineteenth centuries. "American Society of Ocularists – Frequently Asked Questions," accessed July 20, 2021, https://ocularist.org/resources_faqs.asp/#howlongeyesbeenaround.

[370] Buñuel, "Un Chien andalou," 37. My translation.

[371] Lotar's urchin photograph was taken while in Greece filming the documentary *Voyage aux Cyclades* with Roger Vitrac and Jacques Brunius, the latter who will be mentioned in chapter three. Vitrac will be seen again in the second chapter for his work with Breton. Lotar also had worked with Painlevé in 1930 as cameraman for the films *Les Crabes*, *Caprelles et Pantopodes*, and *Crevettes*.
Eli Lotar, (Paris: Jeu de Paume, 2017), Jeu de Paume, Exhibition catalogue, 123.

The severed hand bears resemblance to a starfish, and in fact there is a whole circular self-referencing quality to this object which functions as shorthand. "The motif of severed body parts, which goes back to magic shows and the films of Méliès, is not limited to the eye and head alone. In *Un Chien andalou* we find a severed hand which also appears in the work of Desnos, Soupault and Breton."[373] I refer also to the prosthesis in Lotar's photo which depicts the absence of the severed digit replaced by a prosthesis. This *a priori* knowledge contained within Surrealism does the work to allow intellectual shortcuts that transmit internal citations.

The eye scene is unquestionably the most discussed aspect of the film. However, there is also trauma extending beyond into the rest of the body, and with it there is a certain spectatorship of these events, which brings it back to a physiological trauma of varying degrees of gratuitous violence that is introduced to the viewer via the eye. This includes the slitting of the eye, the fallen cyclist, the hole in the hand with crawling ants, the disembodied hand in the street, the *garçonne* hit by the car, the sexual assault, the donkey corpses, the hand slammed in the door, the disappearing mouth, the disappearing underarm hair, the shooting of the doppelgänger, the dead man in the park and the morbid image of partially buried and enucleated bodies in the sand, swarming with insects. It could be considered that the slitting of the eye in the prologue is a catalyst for the subsequent trauma, depicted as either a recollection or a dream. Though the themes of the disembodied limbs in *Un Chien andalou*, the bloodied eyes of the donkeys, the androgyny of the *garçonne* challenging gender norms and the other aspects of the film which relate to my argument.

---

[372] ffrench, *The Cut,* 3.
[373] Iampolski, "Intertext against Intertext," 170-171.

The influence from other works which echo similar themes in *Un Chien andalou* can be seen, for example in the 1923 novel *Movieland* by the Spanish writer Ramón Gómez de la Serna (1888-1963).[374] Buñuel "held Gómez in high esteem," and even wanted "to involve him as a scriptwriter in making *Un Chien andalou*."[375] One chapter stands out as having narrative parallels with the prologue to Buñuel's film, "The Stolen Birthmark." Violence is enacted upon a round body part – in this case a woman's birthmark. This feature defines her beauty; the eye is what is used, as a tool, to see that beauty defined. The substitution of orbic objects will be discussed further below.

The following section on metaphor and metonymy considers the symbolism, which I locate as more important than the acts of violence, as a starting point for the discourse that will lead to the meaning behind sea creatures in Surrealism.[376] This adds to my position that the message *behind* the acts is more significant than the acts themselves. The concept of metonymy in the Great War – in which trauma and bereavement were expressed by objects which represented something else, like a tomb standing in for a lost soldier – was a way for the French Republic, which was in collective mourning, to channel their grief.[377] On an individual scale, many in Europe were confronted with the symbolic object standing in for what had been lost with the sudden visibility of prostheses after the war. Given Bataille's link to the conflict and that ceremonies and commemorations continued well into the 1920s and 1930s, the writer must have witnessed instances of metonymy related to loss.

This use of one object to substitute another is seen repeatedly in *Story of the Eye* to the point where the objects become interchangeable and almost become meaningless in their individual object-hood. The egg, the eye, a saucer, bull's testicles, a plate, a toilet bowl, the sun, a stain on the sheet, the moon – all ovoid and white. These objects are presented throughout the story and the meaning in the repetition brings them to meaninglessness as individual objects. They have become one. "The eye is *not* the egg, but at the same time, it *is* the egg ('tu vois l'œil? […] C'est un œuf' says Simone). It is the force of this transgressive copula 'is' which generates *Histoire de l'œil*, which is not the sign of equivalence nor of difference, but both at the same time."[378] The meaning, signification and significance have all coalesced into one object to be defiled, desecrated and subject to violence.

---

[374] *Cinelandia*. For more on Buñuel and Dalí's involvement in the literary avant-garde, see Diego Sosa Ortega, "From the Screen to the Stage: An Appropriation for the Stage of Luis Buñuel and Salvador Dalí's *Un Chien Andalou* Based on an Analysis of the Film from the Perspective of the Spanish Literary Avant-Garde." (Ph.D diss., Royal Holloway, University of London, 2018).

[375] Iampolski, "Intertext against Intertext," 164-165.

[376] See also Roland Barthes, "La métaphore de l'œil," *Essais critiques* (Paris : Seuil, 1966).

[377] Audoin-Rouzeau and Becker, *14–18*, 212.

Here Bataille strips the identity of the individual object and the violence enacted upon this meta-object is the same, rendering it banal. It is ocular violence, testicular violence, ovo-violence, gluteal violence, …, and they are all in one metonymous amalgam of the message which Bataille was aiming to convey in his short story. "It is and is not the eye, the egg, for these objects are and are not themselves."[379] Moreover, ffrench remarks in the second portion of the novella, the egg, in its egg form, does not make a single appearance.[380] The object has continued in a non-presence to nevertheless be very active in the story, especially at the end when Simone tells the narrator that the priest's eye *is* the egg.

However, for Buñuel and Dalí, there was no relation for them to World War I, and so the idea of metonymy is likely perhaps drawn from their relationship with religion, with transubstantiation within Christian doctrine being of vast importance and influential to them both. It also attempts to escape interpretation. "Buñuel claimed that 'NOTHING in the film SYMBOLIZES ANYTHING,' but admitted that psychoanalysis might help make sense of it."[381] Or – at times – it took on the interpretation as it fits the situation.[382]

Metaphor and metonymy are present, but these terms indicate an implied reference. In both the film and novella, the nucleus is the eye, and all the other elements in these chains of metonymy are orbiting around it, but they are all also interchangeable, which is not quite the same. In the film's prologue this includes the thumbnail upon which Buñuel's character tests the razor blade, the horizontal line made by the French window's doors which align perfectly with the man's eyes, the clouds skittering across the moon and finally the slitting of the eye. Williams carefully discusses the use of syntagm, metaphor and metonymy in Buñuel and Dalí's film. She underlines how the use of these rhetorical devices was important due to their unconventional ordering, particularly how the "background, or B, element," of the film would be the cloud floating across the moon, preceding the "dominant narrative action," the cutting of the woman's eye.[383] Williams discusses the hierarchy of these actions as having been disturbed, with the chain of events having had the driving diegetic aspect come after the less essential yet still metaphorically relevant part of the story.

---

[378] ffrench, *The Cut*, 11.
[379] ffrench, 25.
[380] ffrench, 91.
[381] Jay, *Downcast Eyes*, 257. [Quoted from Luis Buñuel, "Notes on the Making of *Un chien andalou*," *Art in Cinema.* New York (1968): 29.]
[382] Jay, 258n169-170.

Evolution and metamorphosis emerge as additional modes of alteration within Surrealism. At the first Surrealist exhibition in the United States, *Fantastic Art, Dada, Surrealism* at the Museum of Modern Art in 1936 there was a section dedicated to "Metamorphoses." The Surrealists' slogans 'changer la vie' and 'transformer le monde' both signify these acts as goals.[384] As Picasso once said about Dalí, "'These young artists are astonishing. They know everything. They even know that a horse should be represented through a fishbone.'"[385] Michel Leiris and Georges Bataille both take on the subject in a 1929 issue of *Documents* in which they each respectively endeavour to define the term in relation to an out-of-body experience as well as wild animals.[386] These themes are revisited often throughout this study of the marine biology within the Surreal. Also, at times, the metaphors within syntagm, as seen in *Un Chien andalou*, figure into the discussion of metamorphosis, ranging from the naturally occurring and implied metamorphosis which had already transpired for the death's head moth from its cocoon to the underarm hair which metamorphizes into a sea urchin in one scene and in another it changes into the man's facial hair and/or mouth. Iampolski weaves in insights from others who have also addressed this to say,

> The destruction through metaphor of the established semantic order privileges the process of metamorphosis, in which the first object must be destroyed in order for it to become the second. Film is very effective in portraying this process, thanks to simple tricks such as the dissolve… These chains of absurd metamorphoses seem to parody Darwin's evolutionary theory, which is fact often served as a theoretical model for Surrealist transformations, including *Un Chien andalou.* Writing about the film Dalí said: 'It is not by accident that I have taken some simple examples from natural history, for, as Max Ernst has said, the history of dreams, miracles, Surrealist history, is above all and in every sense a natural history.' The Surrealists strove to replace literature, and culture as a whole, with nature as an intertextual source for their metaphoric

---

[383] Linda Williams, "The Prologue to *Un Chien Andalou*: A Surrealist Film Metaphor." *Screen* 17, Issue 4, (Winter 1976): 30.

[384] Parkinson, Gavin. *Surrealism, Art and Modern Science*, 151.

[385] Iampolski, "Intertext against Intertext," 186.

[386] Michel Leiris, "Métamorphose: Hors de soi," in *Documents*, no. 6 (November 1929): 333; Georges Bataille, "Métamorphose: Animaux sauvages," in *Documents*, no. 6 (November 1929): 333-334.

> eccentricities. Hence the importance, in Surrealism, of animal imagery. The Surrealists singled out the simplest forms of animal life, species that had no symbolic value for human society, such as insects and marine life. The connection between the sea (and water in general) and the theme of metamorphosis is extraordinarily persistent in Surrealist writing.[387]

The natural world served as fertile ground for inspiration, and with the technologies employed by the Surrealists, feats of metamorphosis or accelerated evolution became possible to portray. As will be discussed in the next chapter, this was the beginning of undersea exploration, which revealed the marine. Even though, "the name of Darwin is largely absent from Surrealist writings," evolution – and thereby Darwin's traces, are intrinsically linked to the movement.[388] As Endt states, "the influence of Darwin's theory of natural selection on the Surrealist avantgarde has been noted before: 'Freud was made possible by Darwin, as was Surrealist art and thought. [...] Surrealism expresses the ruptures in conventional ways of thinking about the world inaugurated by Darwin's discoveries.'"[389] Furthermore, within Surrealism there are myriad references to his theory, and I aim to highlight instances of the evolutionary nature of Surrealism, relating to materialist science. The final chapter will examine the evolutionary nature of Agar's work. Until then, there will be other occasions to shine a light on evolution and metamorphosis within Surrealism.

As mentioned earlier, Jay attributes the violence against the eye in Surrealist works to the trauma which resulted from the Great War, precipitating a culturally antivisual discourse in western thought especially France.[390] He states,

> Bataille's obsessive visual concerns may well have had a personal source, as his own reminiscences of his blind father imply. But the frequency of themes in his work that can be traced to the wartime experiences of so many others of his generation suggest that they were by no means uniquely his own. The group of artists and writers who came to be called Surrealists were themselves deeply disturbed by those experiences. As their first historian, Maurice Nadeau, observed, 'Breton, Éluard, Aragon, Péret, Soupault were profoundly affected by the war. They had fought in it by obligation and under constraint. They emerged from it disgusted; henceforth they wanted nothing in common with a civilization that had lost its justification, and their radical nihilism extended not only to art but to all of its manifestations.' Was ocularcentrism one of the manifestations they chose to reject? If, as Sidra Stitch has argued, the traumas of the war were reproduced in the 'anxious visions' of Surrealist art, did they also lead to an anxiety about vision itself? And if so, were the mainstream Surrealists as violently hostile to the hegemony of the eye as Bataille?[391]

---

[387] Iampolski, 171-172. Quote taken from *Salvador Dalí, rétrospective, 1920-1980: 18 dec. 1979-14 avr. 1980,* Paris: Centre Georges Pompidou, Musée national d'art moderne, Exhibition Catalogue, 68.

[388] Strom, *The Animal Surreal,* 7.

[389] Endt, "Reopening the Cabinet of Curiosities," 99. [Quoting Barbara Creed, "The Unheimlich Pacific of Popular Film: Surreal Geography and the Darwinian Sublime," in *Papers of Surrealism*, 6 (Autumn 2007), 2-3, http://www.surrealismcentre.ac.uk/papersofsurrealism/journal6/index.htm.]

[390] Jay, *Downcast Eyes*, 14.

[391] Jay, 231.

While I do not disagree with what he is implying: that collectively, they were reacting to the trauma which refused to release its grip on society, I would like to further explore this and engage with semantics, facts and history. As his argument is grounded in *Un Chien andalou* and *The Story of the Eye*, this is where we should take a deeper look at the argumentation and account for the people involved in these eye-destroying scenes. Firstly, the three men involved in the creation of the works never saw combat. Buñuel was aged 14 and Dalí was 10 at the start of the war and resided in neutral Spain at the time. Bataille was 17 at the start of the war, and though he did not engage in combat due to a lung issue that had him discharged a year after being drafted, his older brother did and there were other events tied to the war which affected him.[392] I am not saying that these men were unaffected by the events but blaming the war for their ocular violence stops short.

Certainly, Jay's nuanced approach is more complex than men trapped in bunkers for weeks at a time with limited vision of the world around them, who then went on to seek to destroy the primary mode of perception because they felt betrayed due to a crisis of vision. It is a pity that Jay anchors his argument with the men who never saw the battlefield because it detracts from his point. If he had employed the cases of Breton or Cendrars, this would be a different case.

Regarding the broader effect that World War I had on Surrealism, my approach to Jay's interpretation would be "Yes, and…" because Jay's excellent work and argument is in many other ways correct. However, it is impossible to equally apply the experience and sentiment of the war onto the Surrealists. He confirms this shortcoming claiming, "to pretend to have located a monolithic Surrealist attitude toward the visual world would indeed be foolish."[393] Indeed, it is futile to classify those associated with Surrealism under one umbrella. The commonalities within the movement, according to ffrench, appear to only have been "…a desire for modernity, a desire to shock and for revolt," which leaves little room for cohesiveness.[394]

---

[392] Georges Sebbag, "Georges Bataille," in *The International Encyclopedia of Surrealism*, vol. 2, ed. Michael Richardson (London: Bloomsbury, 2019).47; Jay, *Downcast Eyes*, 216.

[393] Jay, *Downcast Eyes*, 232.

[394] ffrench, *The Cut*, 63.

Consequently, I will build on Jay's argument and say: Yes, and …that the (social) impact of the war and its aftereffects were so great that even those spared the trenches were not immune to the echoes of shellshock and trauma. This shift brought about the disruption of many different hierarchies, and I argue that certain Surrealists featured sea creatures in their work to subvert the primacy of vision, gender roles and anthropocentrism by means of blurring the human-animal boundary. They used empiricism and materialist science via these animals to expand their own abilities and evolve into a post-World War I world. This demonstrates how works by Man Ray and Desnos, Painlevé and Agar all sought to disrupt these hierarchies and bring humans and animals closer together.

I maintain that the shallow focus on the literal violence distracts and diverts from the meaning(s) conveyed. "The scratched eye opens to another vision, not that of the apprehensive sight but to a material way of seeing the inside."[395] Looking at it symbolically and within the context of cultural ocularity over the span of millennia gives a deeper understanding of the work discussed here. It was created as a way of presenting alternative regimes of perception. Therefore, I must push back when Jay states, "…there can be little doubt that the eye seemed to many Surrealist artists less an object to be revered, less the organ of pure and noble vision, than a target of mutilation and scorn, or a vehicle of its own violence."[396] I think that by getting ensnared by the gore and gratuitous violence presented – getting caught up in our own ocularity – it limits the depth of the message conveyed. As ffrench summarises, "The cut is an image of extreme affective violence, an aggression against the body of vision, our body *and* a strategic operation whereby symbolic space is (re)organized."[397] It is this last part that is of interest to the argument here: with a strategic operation of reorganization, this is key to hierarchical disruption.

The ocular violence from Bataille and Buñuel/Dalí attracts our attention, but it also misdirects. By looking beyond the shocking violence, there is a message. It is not purely destructive, either. Here, there is an offering to confront and the tools to explore by means of non-ocular perception, using sea creatures as conduits. These acts were demonstrations of a desire to subvert western cultural notions of the dominance of the eye above the other senses by "cutting it down to size." By considering the animals used by Surrealists alongside this antiocular*centrism* with marina fauna, this elevates other modes of perception. Additionally, these animals demonstrate alternative gender roles and are oftentimes displayed in ways which anthropomorphize, creating a challenge to anthropocentrism due to a blurring of the distinction between humans and animals.

---

[395] Verena Andermatt Conley, *Hélène Cixous* (London: Harvester Wheatsheaf, 1992), 18-19
[396] Jay, *Downcast Eyes*, 260.
[397] ffrench, *The Cut*, 4.

Many of these artists and writers also defied the typical, orthodox Surrealist fetishization of the metaphysical, that which is beyond sensorial in favour of reality, the material and science. This means that what can be perceived is also privileged by those who are using these animals in their work and as discussed in the second chapter, there is also a grouping of these avant-garde minds deeply rooted in nature and anchored in concrete reality, as opposed to the realm of dreams and the subconscious. Moreover, within the works explored in this study, there is a demonstration of an active engagement with the materialist biological sciences. While there have been myriad studies of the Surrealist relationship to physics, mathematics and technology as it relates to the overall movement, less has been said on the effects of progress in the study of life on the output of interwar Surrealist work. This ranges from Painlevé's underwater documentaries to Agar's collection of glass plate anatomical slides.

This discussion of the fragmentation of vision begins in earnest at the turn of the century, leading from Cézanne into Cubism to demonstrate the fertile ground upon which Surrealism was able to sow its own retinally subversive seeds. The de/construction of the field of vision and the hierarchical supremacy of vision in modern western art was ushered in when Cézanne had begun to break objects down into discrete spaces and independent volumes. Cézanne's work sought to create an effect of synaesthesia and "present objects that were present to all the senses at once: 'We *see* the depth, the smoothness, the softness, the hardness of objects. Cézanne even claimed that we see their odor.'"[398] This attempt to capture everything within one image for the viewer, to behold all at once was a way of constructing while simultaneously destructing the visual field. The active tension in the paintings where Cézanne executes this best comes from this multiplicity as the image is bursting at the seams with visual action. Jay gathers statements from Merleau-Ponty and Clark to summarise the paradox of Cézanne's desire for multi-sensorial painting and the paradigm-changing effects that it had on western art,

---

[398] Jay, *Downcast Eyes*, 159. [Quoting Maurice Merleau-Ponty, "Cézanne's Doubt," in *Sense and Non-sense*, trans. Hubert L. Dreyfus and Patricia A. Dreyfus (Evanston, IL: Northwestern University Press, 1964), 14.]

> Not surprisingly, so ambitious a project could never be successfully accomplished. To render reality in all its sensual manifestations in a medium that remained stubbornly visual proved an intractable problem. Merleau-Ponty concludes that 'Cézanne's difficulties are those of the first word. He considered himself powerful because he was not omnipotent, because he was not God and wanted nevertheless to portray the world, to change it completely into a spectacle, to make *visible* how the world *touches* us.' However partial his triumph, Cézanne's doubt was enormously stimulating to later painters. As Clark has noted, 'Doubts about vision became doubts about almost everything involved in the act of painting: and in time the uncertainty became a value in its own right: we could say it became an aesthetic.' The aesthetic was what we call modernism, which in such movements as Cubism, Futurism and Vorticism further explored Cézanne's demolition of the received visual order.[399]

Cézanne's pioneering influence set the tone for the rest of modernist painting. Certainly, his legacy comes from a long line of brilliant minds which challenged the status quo of visual culture, and their predecessors did the same before them.

As mentioned, this carried on through Cubism in France, with Juan Gris (1887-1927), Pablo Picasso (1881-1973) and Georges Braque (1882-1963) leading the way to dissected spatial fields of objects and the use of abstraction to re-create ocular space. Cubism's technique and timing fit into the overarching theme of expanding the scope of the visual field. (Fig. 1.17) The physical destruction of the field of vision in World War I was a direct result of the extreme violence enacted upon the landscape, in the city and on the battlefield. "Fortresses were demolished, houses blown away, craters opened, hillocks flattened, rivers dammed and diverted in their course, roads transformed into bogs."[402] This left a mark on those who witnessed this destruction first-hand, including artists. They were surrounded by shattered glass and fragmented buildings, and they lived in this desolate space until the end of the war and into the period of reconstruction.

---

[399] Jay, *Downcast Eyes*, 159.

[402] Kern, *The Culture of Time and Space*, 304.

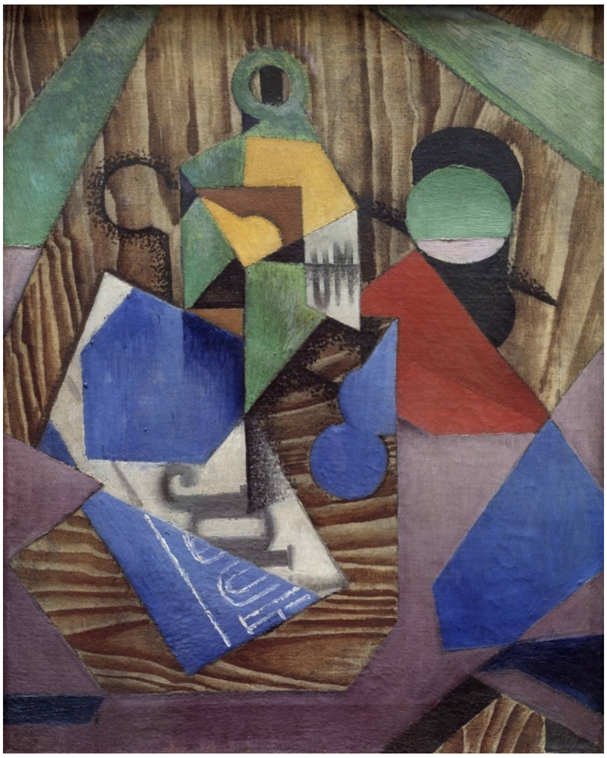


Fig. 1.17, Juan Gris, *La Bouteille de rhum et le journal*, 1913-14, oil on canvas, 46 x 37 cm, Tate, London

Another facet of Cubism is the concept of the fourth dimension, which is defined as "time within the space-time continuum of Einsteinian Relativity Theory."[403] Though relating to scientific concepts outside of the realm of biology, this relationship was significant to modernist movements, finding itself in art and the aspects which favoured and displayed an interest in current trends in popular science. As Dalrymple Henderson discusses,

> the fourth dimension supported bold experimentation by those painters who did not reject visual experience entirely. Associated initially with the geometry of Cubism's faceted forms and multiple views, the fourth dimension was also variously identified with gravity … as well as antigravity … the airless Platonic realm of Synthetic Cubism, and … with tactility and 'significant form' in the art of Cézanne. Because of the time element in hyperspace philosophy, motion also became an important attribute of the fourth dimension – in the motion studies of Kupka, Duchamp … as well as in film (Bruguière, Eisenstein).[404]

There was also the physical act of collage, and the wilful desire to cut into pre-existing pictures, texts and other materials to make new images, inviting visual discord as a new way of looking.

---

[403] Linda Dalrymple Henderson, *The Fourth Dimension and Non-Euclidean Geometry in Modern Art* (Cambridge, MA: MIT Press, 2018), 1.

[404] Dalrymple Henderson, "The Fourth Dimension: Conclusion," 205.

Carl Einstein (1885-1940), author of an instrumental 1915 book on African sculpture, and Daniel-Henry Kahnweiler (1884-1979), the influential art dealer, both wrote about Cubism as early as the 1920s.[405] Kahnweiler wrote on the topic in 1920 during his time in Switzerland during the Great War and Einstein would first address it in his book *Die Kunst des 20. Jahrhunderts*, first published in 1926 and again in 1928 and 1931. As Haxthausen noted, these two had at times opposing views on the visual brain and how the Cubist images were processed neurobiologically. Kahnweiler's writings had been through a lens of "the neuroscience of his day, while, remarkably, Einstein's account of seeing, as he believed it to be embodied in Cubist paintings, anticipated by half a century a fundamental breakthrough in the neuroscientific understanding of vision."[406] Haxthausen also praises Einstein's premonitory and scientifically sound reasoning of Cubism "as painting that can fundamentally alter not only our conception of art but our intuition of the visual world, and in doing so alter our subjectivity."[407] The important thing about Carl Einstein's theory was that it focused on vision being an active process as opposed to a passive one.

This meant that there was a symbiotic relationship between avant-garde artists and Einstein. Haxthausen discusses Einstein and Kahnweiler, bringing in the neurobiologist Semir Zeki and his work on art and the brain in which he explains, "until recently, science understood vision as an essentially *passive* process" and "since the 1970s neuroscientists have discovered that the visual brain is much more complex…that vision is an active rather than a passive process."[408] Haxthausen quotes Einstein from the 1931 edition of his book on art in the twentieth century stating, "'Cubism put an end to the laziness or fatigue of vision. Seeing had again become an active process.'"[409] The link to the physiology of vision dates to the nineteenth century, with Conrad Fiedler in 1876, Mallarmé's writings on Impressionism and Monet's desire to have been born blind "'so that he could have begun to paint in this way without knowing what the objects were before him,'" demonstrate engagement with the physiology of retinality.[410]

---

[405] Haxthausen. "Carl Einstein, Daniel-Henry Kahnweiler, Cubism, and the Visual Brain," accessed February 10, 2021, https://nonsite.org/carl-einstein-daniel-henry-kahnweiler-cubism-and-the-visual-brain/.
[406] "Carl Einstein, Daniel-Henry Kahnweiler."
[407] "Carl Einstein, Daniel-Henry Kahnweiler."
[408] "Carl Einstein, Daniel-Henry Kahnweiler."
[409] "Carl Einstein, Daniel-Henry Kahnweiler."
[410] "Carl Einstein, Daniel-Henry Kahnweiler."

Cubism's relation to Surrealism was not ignored by proponents of either movement, with the acknowledgement by means of another discourse on Cubist art by Carl Einstein in the third issue of *Documents*, a periodical he founded with Bataille and Leiris in 1929.[414] He stated that figurative painting served as a source of calm for those who feared death; that objects and the concept of time were represented in "still life paintings, symbols of the joys of propriety, […] the killed turkeys, the grapes and the asparagus were perpetuated ... What a trick of eternity!"[415] The pictorial depiction of what would typically be the ephemera of everyday life was made immortal by this transformation, stopping time. The topic of Cubism, reality and nature were also of great interest to Goll, though in a different way, which will be discussed in depth in the second chapter of this work.

Einstein had given extensive thought to this new relationship that formed after Cubism, which, based on his writing, appeared to have revolutionised the way humans see real images. Parkinson quotes Einstein in a discussion on his 1934 book *Georges Braque*, saying that the author "claims that the Cubists' break-up of forms in their paintings corresponds to a 'rent between man and the conventional conception of the world, a reconstruction of the structure of sight.'"[427] The distortion of the visual field as an interruption between the image memory and its rendering on the canvas within Cubism created a new reality, asking what it meant to be an observer of art. Eisenstein's contribution within early twentieth century avant-garde art speaks to the link between the scientific consideration of retinality within the scope of Surrealism.

The following section will give a preview of the conceptual framework for the chapters on Painlevé and Agar which follow. This will cover one film and one essay. It will start with an examination of Man Ray and Desnos' *L'Étoile* and its demonstration of film as conduit for alternative sensory modes and subversion of hierarchies. Given Man Ray's comparatively wider scope of subjects in relation to the other two artists, this will nevertheless introduce a slice of Surrealist work which demonstrates the challenging of hegemonic structures as well as an interest in materialist science. It will then be followed by a close reading of an excerpt by Bataille.

---

[414] Carl Einstein, *Notes sur le cubisme*, *Documents* 1, n°3 (June 1929): 146.

[415] Einstein, 147. (My translation.)

[427] Parkinson gives the original French, which here, uses the word *scission*, or schism – or a cut. Interesting, as we are looking at "a reconstruction of the structure of sight," and since there is an ongoing discussion concerning the overarching theme of ocular violence. Parkinson, *Surrealism, Art and Modern Science*, 146.

[*L'Étoile de mer* – 1928]

Proceeding now into a love story – described as having "virtually no narrative structure" – as seen through the lens of a starfish, three aspects will be examined: obfuscation, text play and echinoids.[429] Their relation to the pillars of inquiry will be highlighted throughout to demonstrate the use of marine fauna as a means of challenging hegemonies.

L'Étoile, a fifteen-minute, black-and-white, silent, 35 mm film, was Man Ray's third and Desnos' first cinematic realisation.[430] Its small cast featured the starfish, Alice Prin, André de la Rivière and Desnos.[431] The visual field is distorted for most of its duration after Man Ray painstakingly prepared gelatine filters to evade the sensors.[432] This optical frustration produced a characteristic effect while also signalling diegetic-esque shifts as the film progressed between moments with and without distorted vision. Man Ray's use of technology against itself is part of his long-standing methodological framework in which he challenged the conventions of visuality that film and photography typically provide. He achieved this "by exploring the intrinsic qualities of light a little more, to transgress the limits of an 'ordinary' vision by refusing the *mimesis* of the cinematographic image."[433]

If the distinction between Man Ray's photographs and films lacks clarity, it is because of his own blurring of this boundary. His film work straddled the photographic and the cinematic, making Rayographs on camera film as he did for his first film *Retour à la raison*, using film's inherent temporality to dynamize abstract photographs while concomitantly using aborted film footage as photography, immobilising moments.[434] This created a dialogue in which images would be seen in one place in a photographic format and its cinematic doppelganger would appear on screen in response, using diacopic construction while also demonstrating the permeable membrane that separates these two mediums.

---

[429] Knowles, *A Cinematic Artist,* 138. [Quoted from Allen Thiher, *The Cinematic Muse: Critical Studies in the History of French Cinema* (Columbia: University of Missouri Press, 1979), 45.]

[430] Desnos wrote dozens of screenplays, many of which were published, but this was the first time a film based on his writing had been realised. Carole Aurouet, L'Etoile de mer, *poème de Robert Desnos tel que l'a vu Man Ray* (Paris: Gremese, 2018), 6, 16, 23.

[431] Aurouet, L'Etoile de mer*,* 26. This is the only known cinematic footage of Desnos.

[432] Man Ray, *Self-Portrait*, 277.

[433] Aurouet, L'Etoile de mer, 7. (My translation.)

Beginning in 1924, Man Ray had been "treated as a kind of staff photographer for the movement's original journal, *La Révolution surréaliste*," and if Surrealist "journals […] served to exemplify, to define, to manifest what it was that was Surreal," then his work was integral to the movement.[435] In this, the self-proclaimed *Directeur du mauvais movies* played with techniques to assert artistic agency where the camera typically intervened, using "revolving deforming mirrors," close-ups, splicing techniques, solarisation and darkroom editing.[436] Photography's naturalist idealised reputation for veracity – that the camera cannot lie – had been refuted nearly as soon as its inception.[437] Knowing that there was no real foundation of truth, this provided Surrealists a liberty to restore agency, intervening in place of *l'appareil* to remove subjective perception and expose the reality beneath the surface. This resulted in new ways of seeing, expanding vision as if he was the prosthesis for the photo-filmic technique, "man-as-camera."[438]

Typically, the cinematic apparatus accords the viewer the inherent privilege of optimised perception, with the operator providing the clearest, most unobstructed angle.[439] This epistemologically constructed mode of seeing is disrupted in *L'Étoile* due to Man Ray's manipulation and obfuscation of human ocularity, including unfocused shots, cracked glass and gelatin filters, introducing the viewer to alternative sensory regimes.[440] The story is told through the "eyes" of the starfish, which has accorded the viewer non-human vision; concurrently, the filmmaker has accorded a sensory mode to the creature which it did not possess beforehand, retinality via the camera lens, which translates into what the viewer sees. This symbiotic visuality rests on two of the pillars of inquiry of this study, the intertwining of ocularcentrism and anthropocentrism. The former relates to the starfish’s non-retinal mode of sensing. This is the only way that the viewer is able to watch this love story, and the observation is facilitated by the starfish-narrator, with moments of clear vision which remove the viewer from the first-“person” perspective of the creature. This leads to how the film is anti-anthropocentric, with the film’s vantage point largely belonging to the echinoid, elevating its importance as narrator of this film. However, this narration is purely visual, as the intertitles comprise a separate asynchronous element of the film.

---

[434] Man Ray, *Self-Portrait*, 260, 286.

[435] Krauss, "Corpus Delicti," 57; Krauss, "Photography in the Service of Surrealism," 15.

[436] The sensorial in film was important to Man Ray. *Emak Bakia* was described as "purely optical, made to appeal only to the eyes." Man Ray, *Self-Portrait*, 262, 272-273. Man Ray was also able to "conceive of a kind of expanded cinema, where the experience of watching a film would involve other atmosphere-inducing elements such as odours." Knowles, *A Cinematic Artist,* 156.

[437] See Hyppolite Bayard's (inventor of the direct positive print) self-portrait, *Le Noyé*, 1840, Société française de la photographie.

[438] Susan Laxton, *Surrealism at Play* (Durham, NC: Duke University Press, 2019), 52.

[439] Lyotard, 'Representation, Presentation, Unpresentable,' 119-120.

[440] Knowles, *A Cinematic Artist,* 134.

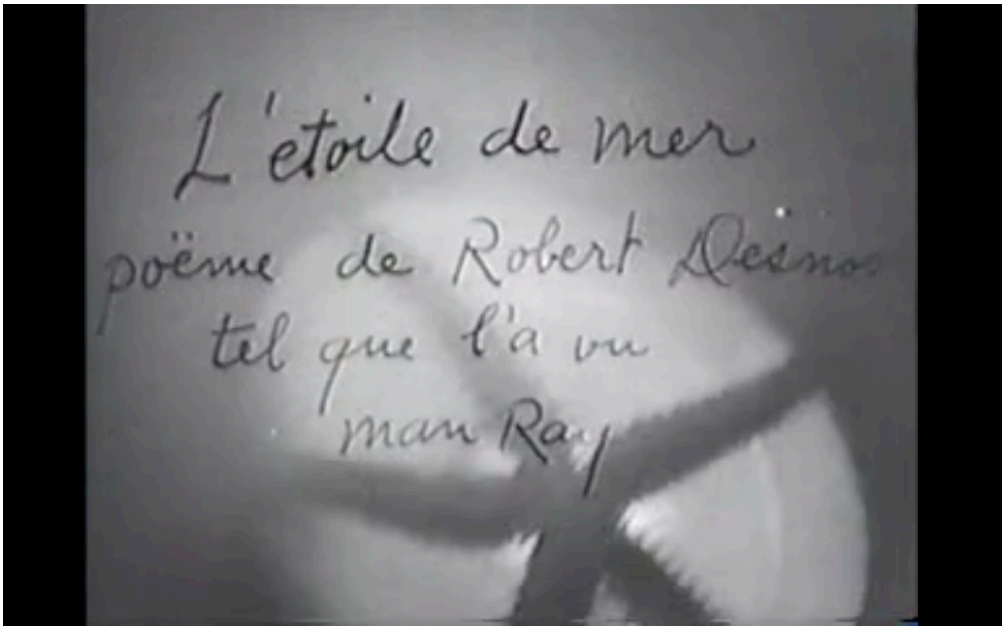


Fig. 1.18, Man Ray and Robert Desnos, still from *L’Étoile de mer*, 1928

Apollinaire’s call for poets to embrace cinematography in his November 26, 1917 discourse, “L’Esprit nouveau and Poets,” implants Surrealist film’s relation to poetry, evoking the text as image.[441] In what Aurouet describes as “a new poetic form,” *L’Étoile* presents its hybrid and collaborative nature immediately (Fig. 1.18).[442] The film is as indicated in Desnos’ handwriting: Desnos’ poem as seen by Man Ray.[443] Kyrou describes this as placing Man Ray’s world within that of Desnos’ and demonstrates another intertwined relationship, this time between text and image.[444] The poet wrote the text shortly before departing for Cuba on a two-month work assignment in February 1928.[445] "He read me his latest poem. It was nothing but images."[446] Man Ray promised to have a film based on it ready for his return, which was first screened soon after Desnos' homecoming.[447]

---

[441] Aurouet, L’Etoile de mer, 14.
[442] Aurouet, 32. (My translation.)
[443] Aurouet, 50.

As mentioned, Surrealism was equally verbal and visual. This duality extends into examples of Albert-Birot's (1876-1967) poème-pancartes, Mallarmé's visual poem, Hugnet's *poèmes-découpages,* Apollinaire's *Calligrammes* as well as *Nadja*, with Man Ray and Boiffard having iconographically contributed to the photo-novel in addition to two portraits of Desnos.[448] *L'Étoile*'s use of poetry in filmic form earns its place amongst these prominent image-text hybrids for its intermediality, and I argue that like these other works, they do not work synchronously to amplify meaning, and in *L'Étoile*, the intertitles do not contribute diegetically.

This does not minimise the intertitles' importance to the films' creators. Desnos expressed his feelings about intertitles in an article in which he proclaims that they are part of "cinema's magic" which allows "'a direct emotion that should not be overlooked,'" but he also warns against its misuse, with resulting abuses ranging from pretentiousness to ineptitude.[449] In *L'Étoile*, they were intelligently used to play with language, and like other Surrealist photo-poems, photo-novels and photo-essays, the film plays with the text.[450] This happens in both the poem itself and Man Ray's (mis)use of intertitles – images themselves, typically employed to advance the narrative – that create another form of assonance within the film. Desnos' text reflects playful turns of phrase with a need to be read aloud to be appreciated, a blasphemous act of transgression in a silent *salle de cinéma*. These captions make the film act against itself narratively as well – as a treachery of the image-text – while also restoring artistic agency in the film-making and viewing processes.[451]

---

[444] Ado Kyrou *Le Surréalisme au cinéma* (Paris: Ramsay, 2005), 177; cited in Aurouet, L'Etoile de mer, 32.
[445] "L'Étoile de mer de Man Ray offerte par Robert Desnos – La Cinémathèque française," La Cinémathèque française, accessed July 23, 2021, https://www.cinematheque.fr/objet/1284.html; The film's scenes are numbered in order of occurrence, a technique developed by Louis Delluc in 1922 with *Fever*. Desnos would use it for "Minuit à quatorze heures" and *L'Étoile*. I argue this allowed Man Ray to dedicate a scene to each "vignette." Aurouet, L'Etoile de mer, 37.
[446] Man Ray, *Cahiers du cinéma*, July 1952; cited in Aurouet, L'Etoile de mer, 94. (My translation.)
[447] The film was privately screened at Studio des Ursulines on May 13, 1928 for close friends and the Viscount de Noailles, who would commission Man Ray's fourth and final film, *Les Mystères du château du dé*. Knowles describes the film as being completed upon Desnos' return, but Desnos is in the film, so I had doubts about this timeline. It was only after reading Man Ray's autobiography that it was explained that the scenes with Desnos had been shot prior to his departure. Knowles, *A Cinematic Artist,* 115. Man Ray, *Self-Portrait*, 276-277. Man Ray claims that the film was first projected as a prelude to *The Blue Angel*, a more conventionally recounted love story, featuring its hauntingly melodic leitmotif, *Falling in Love Again*. Man Ray, *Self-Portrait*, 277. However, the date of its first public projection at the Studio des Ursulines on September 28, 1928 with Georges Lacombe's *La Zone* and Howard Hawks' *A Girl in Every Port*. *L'Ange bleu* premiered at the same cinema July 22, 1930. "L'Ange bleu de Josef von Sternberg – 1930 – Drame," Télérama, accessed July 22, 2021, https://www.telerama.fr/cinema/films/l-ange-bleu,4373.php. Aurouet, L'Etoile de mer, 25, 47. There are many inconsistencies present in Man Ray's memoir. This issue is discussed further in the Agar chapter.
[448] Albert-Birot is seen again in the next chapter as a contributor of *Surréalisme*. Warehime, "Photography, Time and the Surrealist Sensibility," Marja Warehime, "Photography, Time and the Surrealist Sensibility," in *Photo-textualities: Reading Photographs and Literature*, ed. Marsha Bryant (Newark, DE: University of Delaware Press, 1996), 46. Ian Walker, "'Her eyes of fern:' The photographic portrait in Nadja." *History of Photography* 29, no. 2 (2005): 101. Aurouet, L'Etoile de mer, 80.

Knowles explains the film's text-image interplay as "interaction between literary and visual forms of image association."[452] Like two separate images in the mind's eye, those troubled by it suffer from destructive interference, producing a de-harmonised result, but this is experientially subjective.[453] Those able to look beyond are treated to moments in which the film's text becomes a new work inside the work, misaligned yet parallel. The interrogation after "Si belle !" of Cybèle, the Phrygian goddess of nature, later shown with Phrygian hat, toga and glaive, evokes antiquity and echoes Agar's collage of a Minervian-style statue element in a benthic-classical union. The portmanteau éternèbre speaks of eternal darkness, not unlike the ocean floor, but it also highlights themes of visuality in its antonym, light, "Man Ray's lifelong interest," whose concentrated source "makes reassuring shadows."[454] Between these two intertitles, like in the film's entirety, there is a chrono-spatial displacement in relation to the text.

---

[449] Desnos, Robert, "Musique et sous-titres," *Paris-Journal* (April 13, 1923); cited in Aurouet, L'Etoile de mer, 67. Desnos uses the term « sous-titres » in place of intertitles often, a common occurrence of the day.

[450] Roland Penrose's *Le Road is Wider than Long* and André Breton's *Nadja*, respectively, as prime examples of works which blend the literary with the filmic.

[451] In a different form of captions, Benjamin's 1931 consideration of a photograph's caption as potentially "the most important component of the shot," speaks to the importance of this dynamic and how one can influence the other. Walter Benjamin, "A Short History of Photography," *Screen* 13, no. 1 (Spring 1972): 55.

[452] Knowles, *A Cinematic Artist,* 139.

[453] This discordance would be seen again in the music choice, made by Desnos. "Desnos' original outline for the music foregrounds the element […] of sound not simply as an accompaniment to the images, but as an independent creative force in the film." It is unclear what was selected as the accompaniment for the premier, though Knowles mentions that multiple versions of the screenplay indicate that there was much thought put into it by Desnos. Knowles, *A Cinematic Artist,* 157-160, Knowles, 157 [Quoting Bouhours and De Haas (eds), *Man Ray: directeur du mauvais movies*, 63.]

[454] Knowles, *A Cinematic Artist,* 135. Man Ray, Getty Archives, Series III. Hollywood album, 1940-1948 Box 3, Art & Science Folder 1.

Desnos had been a writer of unfilmable scripts, as Fondane has called them, four of which had been published during his lifetime.[455] Circular parallels between these filmmakers and Fondane continue; Christensen presents that Fondane's *The Ripe Eyelids* was inspired by Desnos' 1925 "Minuit à quatorze heures."[456] They both relate to lost love, with Desnos' account of the starfish he purchased from a junk shop serving as the incarnation of his heartbreak.[457] "Minuit à quatorze heures." also features similarities that are later seen in *Un Chien andalou* including its repetitive use of round motifs.[458] Lastly, around the time of filming *L'Étoile*, Man Ray contributed two illustrations to Fondane's *The Ripe Eyelids*.[459]

The only time text and image are seen together is at the end of the film where the woman is seen in a flat-glass mirror upon which the word "belle" is written. Placing beauty between her and the spectator, and with the previous intertitle "elle *est* belle," this elle could be the starfish, which is grammatically feminine, or it could be referring to the woman or, thirdly, this could mean that the belle written on the mirror is labelling her and there is the subsequent destruction of the glass upon which her label is written and which permits us to see her, acting as a form of ocular violence-by-proxy. The glass, which functions as a lens through which the viewer can see her is destroyed, acting against the mode of vision currently in use. "From this 'poem as simple as love, as simple as hello, simple and terrible as *adieu*,' […] 'Man Ray had built a domain which no longer belonged to me nor completely to him.'"[460]

---

[455] Knowles, *A Cinematic Artist,* 124. Aurouet, L'Etoile de mer, 21.

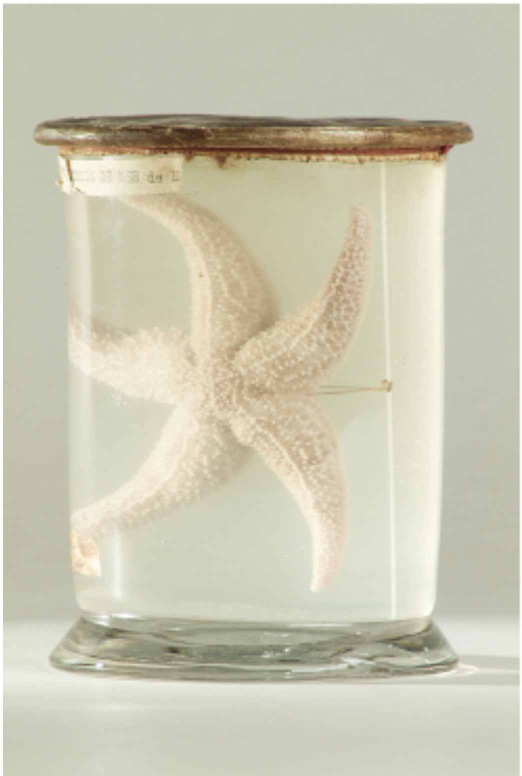
[456] Christensen, "Benjamin Fondane's 'Scenarii intournables,'" 81.

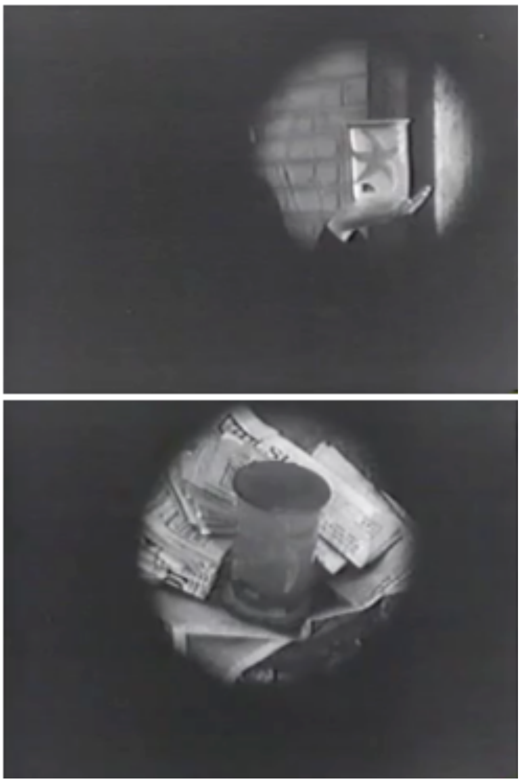
[457] "An unusual and mythical object that Desnos says he found at a second-hand dealer in the rue des Rosiers and kept in memory of his affair with the singer Yvonne George. Incarnation of the starfish, this music hall star inspired several dramaturgical scripts or poems: Qu'elle est belle, La Place de L'étoile et Le Secret de l'étoile, whose verses are given in the form of captions throughout the film." (My translation.) "L'Étoile de mer de Man Ray offerte par Robert Desnos – La Cinémathèque française;" Knowles, *A Cinematic Artist,* 125-126. Small precision: the only caption in the film is from the first example in the quoted text from La Cinémathèque. Knowles, *A Cinematic Artist,* 125-126. Christiansen, "Benjamin Fondane's 'Scenarii intournables,'" 76.

[458] Aurouet, L'Etoile de mer, 22. Also like *Un Chien andalou,* it features repetition in syntagmatic chains, as discussed above. Knowles notes that they "are usually brought together by the use of the iris-in." The woman is at the centre of this syntagm and the revolving associations consist of newspapers, eyes, the jar/starfish and others. Knowles, *A Cinematic Artist,* 136, 151.

[459] Christensen, "Benjamin Fondane's 'Scenarii intournables,'" 80.

[460] "L'Étoile de mer de Man Ray offerte par Robert Desnos – La Cinémathèque française." (My translation.)





(Left) Fig. 1.19, Starfish from *L'Étoile de mer*, c. 1928, 15 cm, Cinémathèque française, Paris
(Right top and bottom) Figs 1.20 & 1.21, Man Ray & Robert Desnos, 1928, stills from *L'Étoile de mer*

L'Étoile's star echinoid (Fig. 1.19) is the starfish, as indicated by the film's vantage point from inside the glass jar, the close-up of a writhing, live specimen from borrowed 1927 Painlevé footage from as well as the moment in which the iris shots – functioning as oculi – close on the jar in one of the few moments of clear vision in a third-"person" perspective.[461] (Figs. 1.20 & 1.21) Moreover, this was not Desnos' first foray in the animal world; the poet's œuvre was a veritable bestiary.[462] Though Man Ray's œuvre does feature a few animals, such as seahorses, shells and butterflies, given the genesis for the film as well as Desnos' poetic menagerie, I argue that it is the influence of the poet more than the cameraman at work here. Nonetheless, these elements reveal the importance of non-human animals.

If the film is relayed through the eyes of the starfish, the scene at the end in which the glass through which we see the woman, the lens which allows the viewer to see, or "the cinematic lens or screen through which the world is perceived," is shattered represents ocular violence.[463] "The writing [*belle*] renders that which is normally invisible visible, setting up a layer that is seen rather than seen through."[464] This draws the viewer's attention to the visual structure typically unnoticed.

---

[461] Aurouet, L'Etoile de mer, 62, 68n7. One of the conserved specimens is held in the Cinémathèque française's holdings and the other is held in Bibliothèque littéraire Jacques Doucet's collection.
[462] Aurouet, L'Etoile de mer, 29.

> Even more disruptive of the assumption that Surrealism merely celebrated visionary optics is Krauss's demonstration that Bataille rather than Breton may best be seen as the inspiration for much of its photography. Noting that a number of visual artists excommunicated by Breton, such as Masson, Desnos, and Boiffard, gravitated into Bataille's orbit around the journal *Documents*, she remarks that even before their break with mainstream Surrealism, they – and others like Man Ray – were already exponents of Bataille's notion of *informe*, the anti-idealizing distortion of the body's integral form. Bataille's influence was also apparent in the photographs in *Minotaure*, launched in 1933, with their degrading transformations of the human body into animallike images and their confusion of organs, such as mouths and anuses.[465]

The transposition of mouths and anuses is also seen in some marine fauna such as the phylum Echinodermata, which includes starfish and sea urchins, which often have multitasking mono-orifices of which some even have anal teeth.[466] Their digestive system "is formed by a simple tube uniting the mouth, on the oral side, and anus, at the aboral end. In the irregular forms, which adopt a secondarily bilateral symmetry, the mouth is shifted 'anteriorly' and the anus has migrated toward the 'posterior' side of the animal. The pharynx is located inside the lantern, and the intestine loops around until it narrows down and opens at the anus."[467]

The oral-aboral phenomenon connects to how Man Ray considered the starfish as a possible image of the *vagina dentata*.[468] This folklore is discussed in psychoanalyst Erich Neumann's (1905-1960) – who is revisited in the Agar chapter for his connection to art, the unconsciousness and British Surrealism – work *The Great Mother*, which contains a Native American myth in which "a fish inhabits the vagina of the Terrible Mother; the hero is the man who overcomes the Terrible Mother, breaks the teeth out of her vagina, and so makes her into a woman."[469] The goddess Cybèle, depicted both in text and image form in *L'Étoile* and mythologically known as "The Great Mother," was additionally categorised by Neumann as a "Lady of the

---

[463] Knowles, *A Cinematic Artist,* 149.
[464] Knowles, 149.
[465] Jay, *Downcast Eyes*, 252.
[466] Gonzalo Giribet, *Invertebrate Tree of Life* (Princeton: Princeton University Press, 2020), 116.
[467] Giribet, 130.
[468] Aurouet, L'Etoile de mer, 29. As said by Desnos' estate beneficiary (*ayant-droit*), filmmaker Jacques Fraenkel. "Nephew of Théodore Fraenkel and Bianca Maklès, he is the nephew of Sylvia Bataille [née Maklès; Georges Bataille's and later Jacques Lacan's wife]." "Jacques Fraenkel – Biography – IMDb," IMDb, accessed July 22, 2021, https://www.imdb.com/name/nm0289536/bio.
[469] Erich Neumann, *The Great Mother: An Analysis of the Archetype*, trans. Ralph Manheim (Princeton: Princeton University Press, 1974),168.

Beasts" and boasted castrated priests as worshippers.[470] Moreover, as Gillian Beer states in regards to metamorphosis within this mythology, "Darwinian theory takes up elements from older orders and particularly from recurrent mythic themes such as transformation and metamorphosis. It retains the idea of *natura naturans*, or the Great Mother, in its figuring of Nature."[471] This unites and signifies what Cybèle, the woman and the starfish mean as an additional narrative and suggest a deeper relation between these three. While not challenging gender roles directly, this reference to divine feminine power depicts the postwar gendered anxiety surrounding the sociological shift in the place of women, seen for example in more and more women leaving the hearth in pursuit of autonomy in the post-war era.[472] Man Ray articulated this general anxiety surrounding this so-called emasculation "by manipulating Freudian symbolism, in vogue among the Surrealists, transform[ing] the symbols of beauty into images of a darker, more subconscious hostility toward the feminine force."[473]

Returning to the "visionary optics" of Surrealist work with a focus on *L'Étoile*, physiologically starfish possess ways of seeing which differ from human sight, of which the mechanisms are found in their arms, which possess much of the sensorial capacities belonging to the animal. "Tube feet are also well innervated, and they serve as the primary tactile, locomotory, attachment, and manipulating organs of echinoderms. In many sea stars, the terminal unpaired tube foot of each arm is probably a photoreceptor organ."[474] In addition to perceiving light, these organs "are capable of low-resolution image formation […], and have a role in photonavigation and orientation."[475] The starfish-narrator possessed the ability to see as well as guide the viewer as the love story unfolded, following them in the streets, interior spaces and on country lanes while concurrently according its sight.

---

[470] Neumann, *The Great Mother*, 275-276. *Britannica Academic*, s.v. "Great Mother of the Gods," accessed July 25, 2021, https://academic.eb.com/levels/collegiate/article/Great-Mother-of-the-Gods/37867.

[471] Gillian Beer, *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth-Century Fiction* (Cambridge: Cambridge University Press, 2000)*,* 9; referenced in Endt "Reopening the Cabinet of Curiosities," 139.

[472] For more on this anxiety and the postwar gender condition, see Introduction "The Paradox of Surrealist Masculinity" and Chapter 1, "Anxiety and Perversion in Postwar Paris," in Lyford, *Surrealist Masculinities.* For more on the element of Eros and anti-Eros, see A. Thiher, *The Cinematic Muse: Critical Studies in the History of French Cinema*, Columbia: University of Missouri Press, 1979; on the subject of the *vagina dentata* and the castrating woman, see P. Adams Sitney, *Modernist Montage: The Obscurity of Vision in Cinema and Literature*, New York: Columbia University Press, 1990.

[473] Lauren Rabinovitz, "Independent Journeyman: Man Ray, Dada and Surrealist Film-Maker." *Southwest Review* 64, no. 4 (1979): 370.

[474] Giribet, *Invertebrate Tree of Life*, 121.

[475] Giribet, 126-127.

Desnos' verse combined with Man Ray's camera skills resulted in a resplendent work featuring non-linear parallels of text and imagery. Man Ray's final film, *Les Mystères du château du dé* is a reference to Mallarmé's visual poem, echoing the importance of the image-text association, taking the visual one step beyond in its cinematic form. After that, he abandoned cinema in favour of creating "[a] book, a painting, a sculpture, a drawing, a photograph, and any concrete object are always at one's disposition," or in other words something more material.[476] The material was also found in Knowles' translation of Desnos' account of the film's final product as being "grounded in reality."[477] Materialism is featured prominently in the following section as well as in the rest of the thesis.

In a reference to vertical and horizontal axes, a moment in *L'Étoile* that connects Man Ray to Bataille is his use of the vertical to propel his own work. "Man Ray indulges in the plastic qualities of this movement, and, as if to further emphasise the effect, slows down the action slightly. This is a key example of what Hedges calls a moment of 'stasis', in which the content of the film momentarily escapes from the narrative flow and develops not along the horizontal axis of story development, but on a vertical axis of visual exploration."[478] The creators of *L'Étoile* and the head of *Documents* also shared a connection through Boiffard, who was the film's assistant cameraman and "manifested the sensibility photographically" for *Documents*.[479] Now we turn to an excerpt from the magazine, to which Desnos, a fellow excommunicated Surrealist, had contributed as well.[480]

Written by Bataille as a "subversive meditation on close-up photographs of plants," in relation to Breton's accusations of counterfeit Sadeanism, I will demonstrate the materialist discourse which flowed, which will be seen again in the subsequent chapters.[481] The accompanying photographs from Blossfeldt – veritable non-human portraiture – presents anti-anthropocentric imagery to enhance Bataille's essay.

---

[476] Man Ray, *Self-Portrait*, 286.
[477] Knowles, *A Cinematic Artist,* 126.
[478] Knowles, 151.
[479] Krauss, "Photography in the Service of Surrealism," 15.
[480] Man Ray, *Self-Portrait,* 277. Desnos, "Cinéma d'avant-garde," *Documents* 7, (December 1929).
[481] Simon Baker, "DOCTRINES (The Appearance of Things)," in *Undercover Surrealism: Georges Bataille and Documents*, ed. Dawn Ades (Cambridge, MA: MIT Press, 2006.), Hayward Gallery, Exhibition catalogue, 34.

[“Le Langage des fleurs”]

In his *Second Surrealist Manifesto*, Breton described the writing style of Bataille as being abusive of language. “It is to be noted that M. Bataille misuses adjectives with a passion: befouled, senile, rank, sordid, lewd, doddering, and that these words, far from serving him to disparage an unbearable state of affairs, are those through which his delight is most lyrically expressed.”[482] Bataille likely revelled in this description from Surrealism’s Pope. As Jay states, “Bataille, he claimed, was interested only in the vilest and most corrupt things, was indifferent to anything useful, and had returned to an old antidialectical notion of materialism, which was simply the reverse of idealism.”[483] And when Breton responded to a potential query regarding the similarities between the Marquis de Sade and Bataille, he argued,

> If anyone brings up as an argument the story about “the ambiguous gesture of the Marquis de Sade who, locked up with the insane, has the most beautiful roses brought to him in order to dip their petals in the liquid shit of a drainage ditch,” I shall reply by saying that, in order for the story to lose any of its extraordinary implications it would suffice that the gesture be done, not by a man who has spent twenty-seven years of his life in prison for his beliefs, but by a staid librarian. There is, in fact, every reason to believe that Sade, whose desire for moral and social independence is, in contrast to that of M. Bataille, irrelevant, merely wished by that gesture to attack the poetic idol, that conventional “virtue” which willy-nilly makes a flower—to the extent that anyone can offer it—the brilliant vehicle of the most noble as well as the most ignoble sentiments, all this in an effort to try to make the human mind get rid of its chains.[484]

This two-pronged message of deference to Sade and disdain of Bataille demonstrates Breton’s position regarding the lascivious topics beloved by both and how licentiousness is tolerable from the imprisoned nobleman but unacceptable for someone who exercised their profession at the National Library. This quote directly references Bataille’s article “The Language of Flowers,” which is found beside Einstein’s “Notes on Cubism,” then followed by a dictionary entry on materialism.[485] As Stoekl says the “essay, which ends with a portrait of Sade throwing rose petals into a ditch filled with manure, gave Breton the opportunity he was waiting for to attack Bataille, and, through Bataille, the rebel Surrealists who had abandoned and betrayed him."[486] The following analysis considers first the images and then the text.

---

[482] André Breton, “Second Manifesto of Surrealism (1930),” in *Manifestos of Surrealism*, trans. Richard Seaver and Helen R. Lane (Ann Arbor, MI: The University of Michigan Press, 1969), 184.

[483] Jay, *Downcast Eyes*, 233.

[484] Originally published in the twelfth and final issue of *La Révolution surréaliste* (December 15, 1929). Reproduced in Breton, “Second Manifesto of Surrealism (1930),” 186.

[485] “Le langage des fleurs,” “AGORHA: Bases de données de l’Institut national d’histoire de l’art (INHA),” REVUE - *DOCUMENTS (1929-1934)* - Dépouillement, accessed July 24, 2021, https://agorha.inha.fr/inhaprod/servlet/DocumentFileManager?source=ged&document=ged:IDOCS:264420&resolution=MEDIUM&recordId=musee:MUS_BIEN:95078

Five full-page images accompany Bataille's essay. These botanical specimens are from Blossfeldt's *Urformen der Kunst*, a study of images of plant specimens, from a "camera that he altered to photograph plant surfaces with unprecedented magnification."[487] (Fig. 1.22) This technique aligned with the Surrealist impulse to reveal hidden truth. Like *L'Étoile*, the text-image relationship is present and will be discussed below.

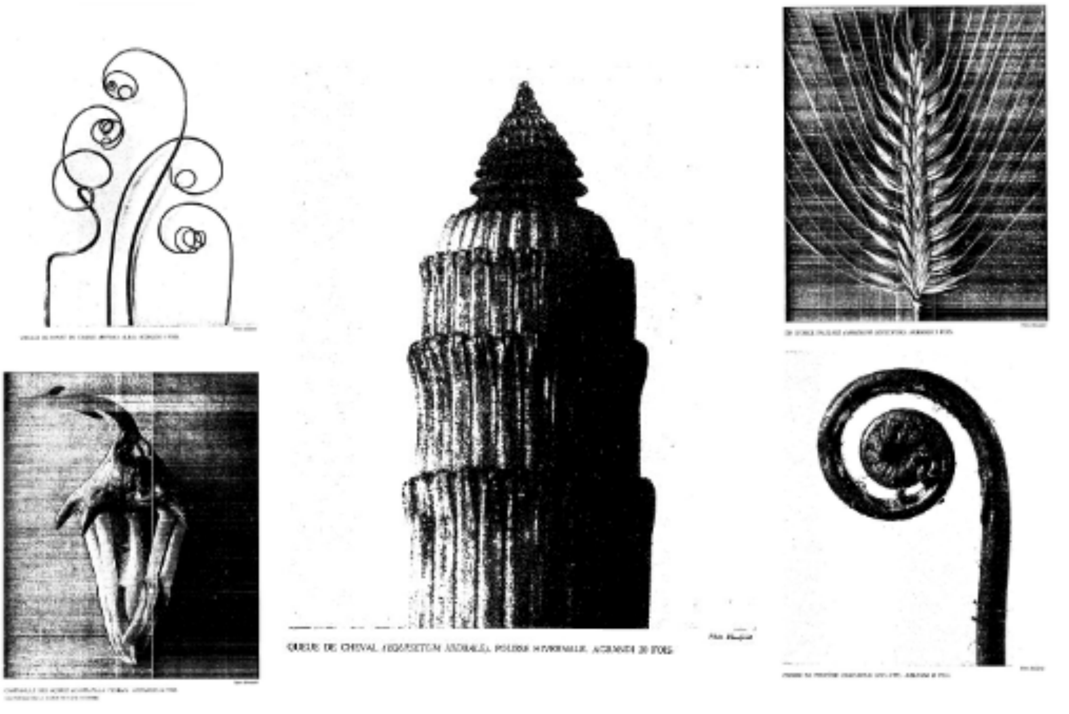

QUEUE DE CHEVAL (EQUISETUM HIEMALE), POUSSE HIVERNALE, AGRANDI 20 FOIS.

Fig. 1.22, Plant specimens by Karl Blossfeldt, reproduced in "The Language of Flowers," *Documents* nº 3, June 1929. Starting from bottom left, continuing clockwise, (1) "Azorina flower (*Campanula vidalii*), magnified 6 times | the flower petals have been ripped off;" (2) "White bryony tendrils (*Bryona alba*), magnified 5 times," (3) "Horsetail, (*Equisetum hiemale*), winter shoot, magnified 20 times;" (4) "Barley stalk (*Hordeum distichum*), magnified 3 times;" (5) "Fiddlehead of a deer fern (*Blechnum spicante*), magnified 12 times." My translation.

This next section will first explore the photographs (Fig. 1.22), and then account for their relation to Bataille's writing. The first image is the azorina flower, with the specification "the flower petals had been ripped off" from the stalk, echoing the Sadean practices which Breton feared Bataille was emulating.[488] This depetaled flower resembling a grotesque, delicate machinal claw was the sole image embedded within the text, placed between the first and second pages. The (unshown) blossom with its petals resembles a lady's corset, taking the expression of deflowering to a sexual register.

---

[486] Allan Stoekl, "Introduction," in *Visions of Excess: Selected Writings 1927-1939.* ed. and trans. Allan Stoekl (Mineapolis, MN: University of Minnesota Press, 2008), xi.
[487] *Art Forms in Nature*, "Karl Blossfeldt | MoMA," MoMA, accessed February 16, 2021, https://www.moma.org/artists/24413.

The remaining botanical images were placed after the essay and include delicate tendrils of *Bryona alba*, or white bryony, a poisonous and homeopathic herb shown as delicate swirls and curls.[489] This speaks to the *pharmakon*, which is present throughout this chapter in which photographers use technology against itself to produce Surrealist images. The next one is the *Equisetum hiemale*, or horsetail as it is commonly known. It has medicinal properties but is not poisonous like the bryony, however it "contains large amounts of sharp silica crystal making it painful, if not actually life-threatening, if ingested. It has been reported to sicken cattle."[490] The photograph has a phallic, architectural aspect, akin to the top of a Thai Benjarong porcelain lidded bowl, or a multi-stepped pagoda tower. In addition to being another instance of *pharmakon*, there is an element of sadism in its sharp phallicism.[491]

The fourth image is a fan-like image on a dark background almost looks skeletal or like an insect with many legs stretching upwards diagonally. It features an uncanny quality because it resembles something familiar, wheat, but it is nevertheless otherworldly at first glimpse. In addition to be a commonly consumed grain, and use in making malt liquor, it "is used for the preparation of a decoction which is a nutritive and demulcent drink in febrile conditions and in catarrhal affections of the respiratory and urinary organs: barley water is used to dilute cows' milk for young infants."[492] This echoes Bataille's use of saucers of milk and urine in *Story of the Eye.*

---

[488] Even if the image had been captured by Blossfeldt and Bataille was "borrowing" it.

[489] The homepage and the link to the book explain that the website's contents are taken from the book *A Modern Herbal* first published in 1931, written in England by Mrs. M. Grieve F.R.H.S. and published by Harcourt, Brace & Company."A Modern Herbal | Bryony, White," accessed February 16, 2021, http://www.botanical.com/botanical/mgmh/b/brywhi77.html.

[490] "Equisetum hyemale," accessed February 16, 2021, https://floridata.com/plant/561. Other medicinal uses can be found here: "A Modern Herbal | Horsetail," accessed February 16, 2021, https://www.botanical.com/botanical/mgmh/h/hortai39.html

[491] The phallic stage is also the next Freudian psychoanalytical stage after the anal stage, representing an evolution from the starfish discussed above, but is also the very attack that *vagina dentata* seeks to avoid. *Britannica Academic*, s.v. "Human behaviour," accessed July 25, 2021, https://academic.eb.com/levels/collegiate/article/human-behaviour/110429#24910.toc.

The final image is a beautiful spiral-ended branch also looks incredibly alien on the black background. Its medicinal properties soothe "sores and other skin problems" and "the leaves were traditionally used as a treatment for stomach problems, lung disorders and even cancer."[493] These images act alone as an homage to Sade and an expression of the uncanny, which will be explored in the next chapter, while also functioning as a supplement to Bataille's text. Reflecting on Blossfeldt's naturalist and Bataille's Surrealist work, what is the significance of this pairing of text and imagery, as chosen – presumably – by Bataille himself? As Taussig explores in his own essay "The Language of Flowers,"

> Is this what lies behind the *sur* of surrealism as in Bataille's use of Blossfeldt? For while Blossfeldt with his magnifying lenses was pursuing the art in nature, Bataille was enchanted by the rupture his images thereby created. Bataille's point, surely, was not the elementary one that representation trumps nature, but rather that Blossfeldt's images are like magic tricks in which you suspect sleight of hand but are nevertheless filled with wonder as the rabbit is extracted from the top hat. You are left suspended, unable to decide what is art and what is nature, temporarily stripped of your common sense with its assumptions as to the nature of nature let alone the nature of art.[494]

Blossfeldt's highly magnified images, each reproduced on a full page gives the reader the ability to observe details and to see these plants like never before. Their extreme realness went beyond typical means of representation to reveal the *au-delà*. Bataille selected these plants to reinforce his message and to give his words visual support while also allowing them to speak for themselves.

The text begins with a discussion on the visible aspect of a flower and the importance of looking beyond the surface, that there is more to consider like the corolla and the pistil. Thinking about the first image in which the pistil is visible due to the removal of the bellflower petals, it is obvious why Bataille chose this image by Blossfeldt. It echoes the sentiment of truth-revealing excavation within Surrealism, "the flower expresses an obscure vegetal resolution. What the configuration and color of the corolla reveal, what the dirty traces of pollen or the freshness of the pistil betray doubtless cannot be adequately expressed by language."[495] From the beginning of his essay, Bataille establishes a linguistic toolbox and communicates to the reader that he will be using floriform discourse to convey his message.

---

[492] "A Modern Herbal | Barley," accessed February 17, 2021, https://botanical.com/botanical/mgmh/b/barley15.html.

[493] "A Modern Herbal | Ferns," accessed February 17, 2021, https://www.botanical.com/botanical/mgmh/f/ferns-08.html; "Hard fern (Blechnum spicant)," accessed February 17, 2021, https://www.woodlandtrust.org.uk/trees-woods-and-wildlife/plants/ferns/hard-fern/.

[494] Michael Taussig, "The Language of Flowers," *Critical Inquiry* 30, no. 1 (2003): 108-109.

He ascribes symbolic meanings to flowers, sometimes obvious, like the narcissus' egoism or the dandelions' expansion, but others, like the waterlily's indifference, are less apparent, though he warns that it is futile to seek further because its meaning is hidden. The intertwining symbolism of love and flowers is touched upon, bringing him to discuss the way in which objects symbolize other things and by that means it is explained the way in which – in dream worlds or metonyms – one thing is substituted for another. "Thus there would be good reason to renounce immediately the possibility of replacing the *word* with the *appearance* as an element of philosophical analysis."[496] Here Bataille evokes the text-image relationship, with a twist of ocular scepticism, and he underlines that what is visible is not what is most valuable. "It is evident, in fact, that if one expresses love with the aid of a flower, it is the corolla, rather than the useful organs, that becomes the sign of desire."[497] This correlates with the photograph of the depetaled bellflower, displaying the typically hidden yet most operative parts.

Ideal beauty is represented by both a rose and a girl, said Bataille, and that this beauty is inherent in flowers, representing the "human *ideal*."[498] He juxtaposes the exterior flower's beauty with that of the hairy, ugly interior. He questions this incongruence and advocates for a subversive interior contained within flowers, a rather satanic elegance; they are both filthy and fragile. And when their petals wither and die, they lose their beauty and return to the manure pile from whence they came. Ergo "*love smells like death*."[499] Bataille in his own style has now taken the once-visible aspect of beauty incarnate and given it olfactory powers that represent putrefaction.

---

[495] Bataille, "The Language of Flowers," *Visions of Excess: Selected Writings 1927-1939*, ed. and trans. Allan Stoekl (Mineapolis, MN: University of Minnesota Press, 2008), 10.
[496] Bataille, 11.
[497] Bataille, 11.
[498] Bataille, 12.
[499] Bataille, 13.

Bataille turns to flowers' external qualities, which have unambiguous meaning and evokes the second image from Blossfeldt. "The appearance of leafy stems generally gives the impression of strength and dignity. Without a doubt the insane contortions of tendrils and the unusual lacerations of foliage bear witness to the fact that all is not uniformly correct in the impeccable erection of plants."[500] Quickly after this curious reference to lacerations and erections, he references the architectural quality of plants, which evokes the horsetail as it represents in its columnar state, "which sometimes manifest a veritable architectural order;" for the writer, it brings forth themes of integrity, justice and inner peace.[501]

Bataille now delves into the soil to go below the plant and into the root system. They, he says, "represent the perfect counterpart" to the visible and represent all that is rotting and lacking in nobility, wallowing.[502] He ascribes morality to the plant, with evil and baseness being in the dirt, and though he does not mention it, this echoes his *bassesse* of the *informe*. Referencing the mandrake, satanism and the obscene symbolism of root vegetables, Bataille seeks to group all rhizomatic entities into that which is immoral. Without stating any relation to the last two images, which are left to stand on their own, the barley acting-as-mandrake with its outstretched arms and central body-like yet otherworldly figure. The fiddlehead as a staff, coiled scroll or piece of musical equipment likely relates to his discussion of abstract nature, whose substitution "currently used by philosophers will seem not only strange but absurd."[503] He continues discussing the fallacy of nature in philosophy and its fatal flaw of going too far into ideas of relating everything natural to baseness. He ends precisely where the analysis of this section began, with the imprisoned Marquis de Sade and his roses.

However, for Breton this grouping was unequivocally wrong, which is why he made it known in his second manifesto. It was unacceptable for Bataille to attempt to embrace Sade's acts and twist them into sordid, lewd displays of profanity. "For Breton the overthrowing of the poetic idol of the rose is an act of protest. Sade did not want to sully beauty!"[504] Breton's double-standard, stems from Sade's mythical notoriety and the fact that he came from a different era, living in different circumstances, in a form of readymade historicization, "Sade is Surrealist in sadism."[505] To re-enact, outside of the confines of the Bastille prison – entirely lacking in noble heritage and history as was Bataille's situation – was unacceptable for Breton.

---

[500] Bataille, 13.
[501] Bataille, 13.
[502] Bataille, 13.
[503] Bataille, 14.
[504] Sebbag, "Georges Bataille," 50.

Bataille advocated for the material, the truth and the visibility of what lay beneath throughout his essay. Using microscopic imagery to reveal the typically unseen, interweaving a Sadean thread within the argument, this functions as a continuation of a Surrealist desire to reveal the truth, this time by using image-text functions which display a form of vision not typically accorded to human ocularity. In the next chapter, there will be more instances of materialism within a Surrealist periodical, followed by an exploration of three Painlevé films which demonstrate challenges against ocularcentrism, gender roles and anthropocentrism, all through the eyes of sea urchins, octopuses and seahorses.

---

[505] Breton, "Manifesto of Surrealism (1924)," 26.

CHAPTER TWO – JEAN PAINLEVÉ

The filmmaker Jean Painlevé, son of mathematician and politician Paul Painlevé, is categorised as an adjacent Surrealist. His connection to the movement relates partly to his cinematographic œuvre and partly through his friend and classmate Boiffard who was studying medicine at the Sorbonne, leading him to meet others such as Prévert and later Goll.[506] He made ground-breaking zoological documentary films appreciated by many Surrealists for their otherworldly qualities, but he chose to remain outside of the major Surrealist circles, though not due to ideological differences. As Fretz states, "many of the end goals for the Surrealists and Painlevé were the same: to overturn the accepted version of reality and challenge rationality in an attempt to understand humanity's place in the world. Painlevé embraced Surrealist interests such as the marvelous and the absurd, but he found everything he was looking for by observing nature."[507] He focused on introducing the scientific community to using film as documentation and bringing his research to the public, known as *vulgarisation*, though he preferred the English term "popularization."[508] Painlevé used film as means for dissemination and scholarship. His scientific education began at the Sorbonne, but his passion for the marine stems from childhood summers on the Brittany coast.[509]

Painlevé possesses an innate ability to anthropomorphize many of his subjects, making them come alive and become relatable, thereby allowing for a connection between the audience and the animal. Aside from *The Seahorse*, Painlevé's films never enjoyed commercial success. He did, however, influence scientific filmmaking, the local yet large-scale Parisian film scene and *ciné-clubs* all over Europe, where many of his films were shown.[510] Painlevé is credited with having made over two hundred short films on biology, medicine, surgery, physics as well as on art and dance over the span of his fifty-year career.

---

[506] Cahill, *Zoological Surrealism,* 5.

[507] Lauren E. Fretz, "Surréalisme Sous-l'Eau: Science and Surrealism in the Early Films and Writings of Jean Painlevé," *Film & History: An Interdisciplinary Journal* 40, no. 2 (2010): 50.

[508] Hazéra and Leglu, "Jean Painlevé Reveals the Invisible," Hélène Hazéra and Dominique Leglu, "Jean Painlevé Reveals the Invisible," trans. Jeanine Herman, in *Science is Fiction*, ed. Andy Masaki Bellows and Marina McDougall, (San Francisco: Brico Press, 2000), 179. [Originally published as an interview in *Libération*, 1986.]

[509] He began his studies in pre-medicine, and later changed to zoology after witnessing the cruel mistreatment of a handicapped patient by one of his professors, Cahill, *Zoological Surrealism,* 33. Berg, "Contradictory Forces," 7.

In this chapter I will discuss Painlevé's contribution and the way in which he subverted hegemonic structures in Surrealism as part of the ongoing discussion in this thesis. This will begin with the examination of a Lorrainian poet's attempted *coup de surréalisme* and the context in which this transcribed, highlighting a journal published just before Breton's first manifesto. The materialist quality of its content demonstrates a parallel current within Surrealism which favoured the concrete, real and natural world from the movement's onset. Considering Breton's 1934 Brussels speech, this journal displays Breton's belatedness to the materialist gathering after having lingered in the metaphysical. After, there will be an examination of Painlevé's work, including three interwar films in which three pillars of inquiry are addressed, ocularcentrism, gender roles and anthropocentrism. The fourth pillar, materialist science is seen throughout the journal as well as the documentary filmmaker's work, presenting the avant-garde within the avant-garde – when many within Surrealism were extolling the virtues of the metaphysical, but would later come into the materialist, Painlevé as well as the other figures discussed here were lightyears ahead of them..

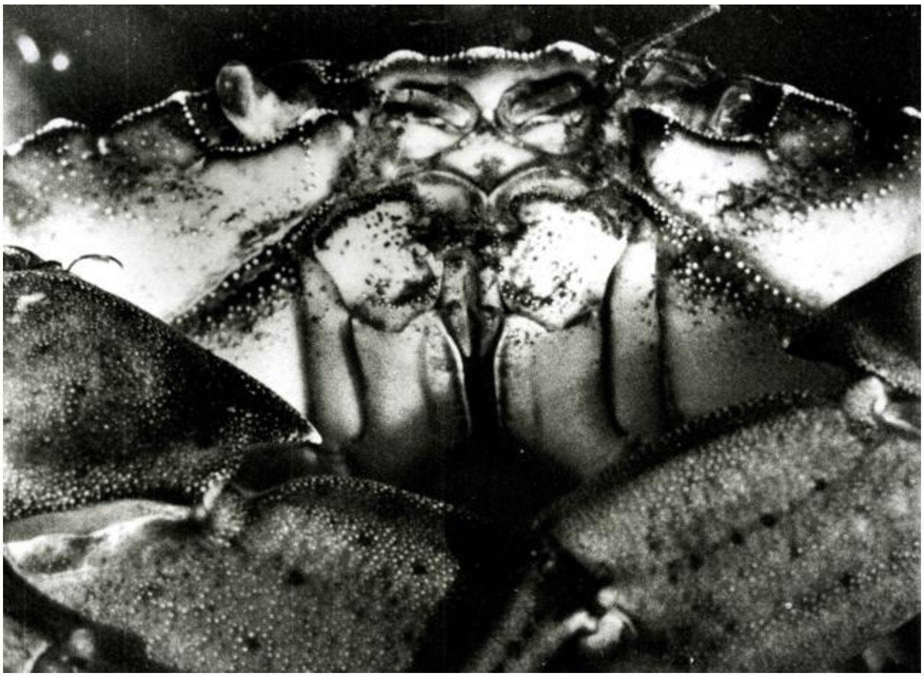


Fig. 2.1, Jean Painlevé, Close-up of a crab from *Crabs and Shrimp*, 1930, Les Documents Cinématographiques, Paris

---

[510] Roxane Hamery, "Jean Painlevé et la promotion," in *Jean Painlevé: le cinéma au cœur de la vie*, (Rennes: Presses Universitaires de Rennes, 2006), 8.

Painlevé was not a Surrealist artist in the same manner as Breton or Ernst – he was at the movement's outskirts. Though his work chronologically and methodologically fits squarely within Surrealism, he was a scientist first and artist second – using film in the service of science. His work was appreciated and used by Surrealist artists such as Man Ray and Bataille, and he even worked in collaboration with Surrealist publications where his writing and film stills appeared, demonstrating his connection to the image-text paradigm within Surrealism.[511] (Fig. 2.1) He firmly remained in his role as documentary filmmaker and scientific researcher, and if he was to have been linked to any part of Surrealism, it was nowhere near Breton and his inner circle. As Hamery states:

> if the influence of Surrealism on his films is unanimously recognized, we have, on the other hand, often mistakenly analysed the personal rapport between the filmmaker and the different members of the group. It has been overlooked that his acceptance of the term differed from that of Breton's, that he had been much closer to the parallel movement founded by the poet Ivon Goll…[512]

While she makes the distinction between Breton and Goll, there is no clarification regarding their divergence. This difference is nevertheless important to note because what is considered orthodox, or Bretonian, Surrealism was largely established after an intellectual and physical fight between Goll and Breton. Its ramifications determined Surrealism's fate and its subsequent scholarship, placing it in Bretonian metaphysicality as opposed to Goll's materialist vision. The following section will serve to elucidate the context in which this dispute happened and will be followed by a close reading of Goll's publication *Surréalisme* to highlight a materialist Surrealism present since birth.

[The Early Days of Surrealism]

The canonical consensus of art historical scholarship supports Surrealism's official birth as coinciding with the publication of Breton's 1924 *Manifesto of Surrealism*.[521] However, the movement grew into this moment organically, predating the 1920s, and involved a more complex network of avant-garde writers, artists and thinkers than its genesis and lone-genius narrative implies. Breton's manifesto was published just a few months after the final issue of *Littérature*. Though the Surrealist movement "officially began" in 1924, others, including Breton, had used the term beforehand, and due to the abundance of avant-garde movements, there is a rhizomatic quality to the movement's beginnings. Picabia used the term "Surrealist" in the August 1, 1920 issue of *La Nouvelle Revue française*.[522] Breton defined Surrealism in a 1922 essay as "a psychic automatism which corresponds quite well to the dream state."[523] Naturally, Apollinaire is credited with the term's creation, but he did not bequeath an official definition of the term, thereby leaving it open to interpretation. However, Breton – despite being territorial whenever it came to the use of the word Surrealism – was not the only one who was attracted to Apollinaire's neologism. One attempted *coup de surréalisme* occurred days preceding the movement's birth. Before Breton established his dogmatic control on the Surrealist group, there was another writer, who not only used the term Surrealist in his own work as early as 1919, but also published a revue with its own manifesto shortly before Breton's.

---

[511] Film stills from *Crabs and Shrimp*, in *Documents* nº6 November 1929 to accompany the dictionary entry "Crustaceans" written by Jacques Baron; Painlevé's essay "neo-zoological drama," in *Surréalisme*, October 1924, for example.

[512] Ivan, Iwan, Yvan and Ivon are all spellings I have encountered of Goll's name. Hamery, *Jean Painlevé*, 13. (My translation.)

[521] Other aspects of orthodox Surrealism include a fixation on psychology, the metaphysical, dreams, hypnosis, the unconscious and automatism, all taking place in Paris. This is a gross simplification of the beginning of an art movement, which are never as simple as a flip of a switch or the publication of a single work.

Born Isaac Lang, Goll hailed from Lorraine. With Alsace, it had been transferred between France and Germany many times over the past centuries. At the time of Goll's birth and until 1918, it had been in Teutonic possession. During the Great War he escaped conscription by absconding to Zurich, where he met other avant-garde artists and writers, most notably being Tzara's Dada group, though he was never officially welcomed into the fold.[533] According to Claire Goll, it was her husband who rejected Tzara and Dadaism, though – as memoirs are wont to do – this recollection from sixty years afterward may need to be taken lightly.[534] Scholars, however, discuss Goll's suffering from rejection due to exclusion by Tzara and others, including Breton.[535] He nevertheless found his place with other artists and writers including George Grosz (1893-1959), Oskar Kokoschka (1886-1980) and was on the editorial team of Henri Barbusse's

---

[522] Carole Boulbès, "Au sans pareil: la revue *Littérature*," in *Man Ray, Picabia et la Revue* Littérature, ed. Christian Briend, Centre Pompidou, Exhibition catalogue, 14.

[523] André Breton, "Entrée des médiums," *Littérature* 6 (November 1922): 1-2; Boulbès, "Au sans pareil: la revue *Littérature*," 16.

[533] Ronsin, "Yvan Goll et André Breton: des relations difficiles," in *Yvan Goll (1891-1950): Situations de l'écrivain*, ed. Michel Grunewald (Bern: P. Lang, 1994), 59.

[534] Claire Goll and Otto Hahn, *La Poursuite du Vent* (Paris: O. Orban, 1976), 57. Artist's memoirs such as Man Ray's and Agar's are also riddled with biased inaccuracies, as discussed in the other chapters.

[535] Ronsin, "Yvan Goll et André Breton," 59.

(1873-1935) journal, *Clarté* (1919-1928).[536] In November 1919, the Golls moved to Paris to pursue their writing careers.[537] "Immediately they met Breton, Aragon, Soupault, Barbusse, Vaillant-Couturier and others, but Goll refused both political commitment and Breton's discipline. He had gone to Paris to meet Apollinaire, but the poet of *Alcools* had just died. For the fierce young expressionist who despised the Dada movement, there was a path to explore: Surrealism."[538] This focus on Apollinaire influenced Gollian Surrealism, wanting to remain as ideologically close to the defunct poet as possible while also trying to steer it out of Dada's slipstream.

Goll claimed custodianship of the term, declaring his Surrealism as a "vitalist alogism oriented towards the search for the truth."[563] He maintained that his usage of the term preceded that of Breton's by referencing the preface of his 1919 play, *Mathusalem*, in which he wrote, "The modern satirist therefore finds himself obliged to seek other means of arousal. He found them in Surrealism and the illogical. | Surrealism is the strongest negation of realism. It makes reality appear under the mask of appearance, thus promoting the very truth of being."[564] This relates to the discussion in the previous chapter regarding excavation of truth beneath the surface as an inherently Surrealist practice, particularly in photography, demonstrating a coherence reflected within the movement, regardless of faction.

---

[536] Ronsin, 59, 60. Barbusse, a prolific writer and militant pacifist who had Mallarmé and Bergson as professors, received the 1916 Prix Goncourt for *Feu*, his novel based on his experience in the Great War. He wrote another work, *Clarté* in 1919, which relates the First World War as well. The Clarté movement – which took the form of a book, revue and group – was anti-war, and expressed "the desire to translate into action a sense of revolt against the old order." Nicole Racine, "The Clarté Movement in France, 1919-21," *Journal of Contemporary History* 2, no. 2 (1967): 195-208; Alain Cuénot, "*Clarté* (1919-1928): du refus de la guerre à la révolution," *Cahiers d'histoire. Revue d'histoire critique* 123 (2014): 115-136 ; "Clarté [REVUE] / dir. Henri Barbusse," Bibliothèque Kandinsky; "Henri Barbusse – livres et romans de l'auteur aux Editions Flammarion," Flammarion, accessed July 27, 2021, https://editions.flammarion.com/Auteurs/barbusse-henri; *Britannica Academic*, s.v. "Henri Barbusse," accessed July 27, 2021, https://academic-eb-com.ezproxy01.rhul.ac.uk/levels/collegiate/article/Henri-Barbusse/13324.

[537] Ronsin, "Yvan Goll et André Breton: des relations difficiles," 58.

[538] Yvan Goll and Claire Goll, *Yvan Goll: Un Poète, sa femme, ses illustrateurs: Exposition à Saint-Dié-des-Vosges, musée et bibliothèque, 22 novembre au 14 décembre 1980*, Exhibition catalogue, 5. (My translation.)

[563] Marguerite Bonnet, *André Breton: Naissance de l'aventure Surréaliste* (Paris: J. Corti, 1988), 331. (My translation.)

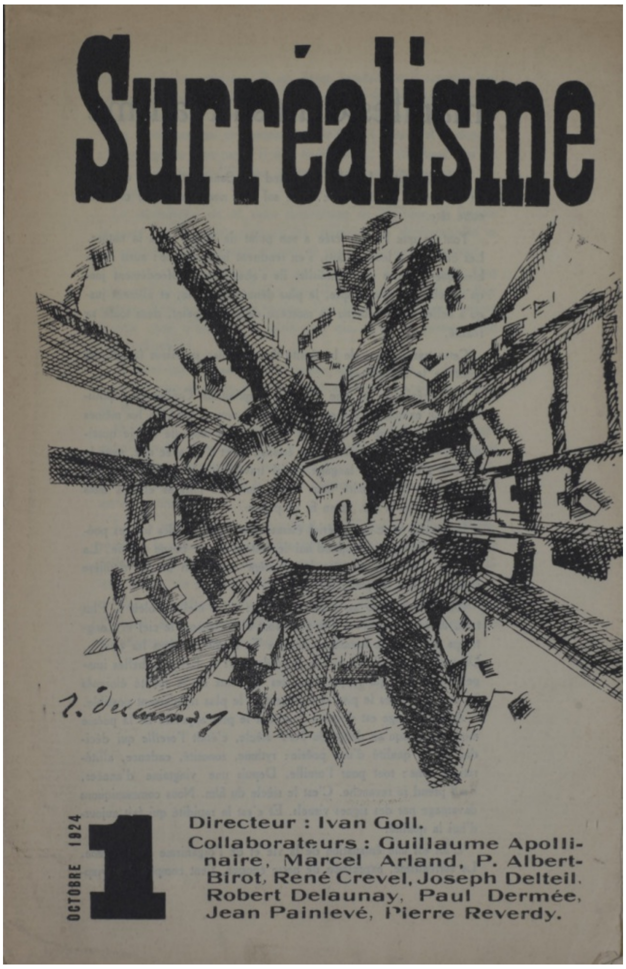
[564] It was created in 1919, published in 1923 and premiered on stage in 1927 with Painlevé's films as part of the set design and starred Artaud. Yvan Goll, *Mathusalem* (Paris: l'Arche (Saint Amand, impr. Clerc), 1963), np, 9. (My translation.); Carassou asserts that Goll had used it even earlier in a 1918 publication *Trois Bons Esprits de France* (*Three Good Minds of France*) in which he writes on Diderot, Mallarmé and Cézanne. It is only in *Mathusalem*, Carassou claims, that he defined it. (Artwork must Surreal the real.). The timeline continues to be complicated with Carassou's claim that Goll arrived in Paris in 1923 and not 1919. Michel Carassou, "Surréalisme," in *Bibliographie des revues et journaux littéraires des XIXe et Xxe siècles, 1915-1930.* vol. 3, ed. Jean-Michel Place and André Vasseur, (Paris: Éditions Jean-Michel Place, 1977), 275.

Goll wrote that he justified his claim as Surrealism's guardian because he arrived first and gave a materialist call to action, "Waiting for the posthumous 'Surrealist Revolution,' I would like to more simply establish a 'Surrealist evolution.'"[565] Goll here shows his desire to not pursue a total rupture from pre-war avant-garde, but rather to cultivate and develop. He sought to bridge ideas without being cut off from predecessors, including Apollinaire and a path from Cubism. The use of evolution as an approach demonstrates Goll's attachment to a materialist perspective in which the movement may move forward. Given Apollinaire's premature death, Goll was obliged to develop these ideas further as a form of Darwinian adaptation. Surrealism needed to evolve to go beyond its 1917 state to thrive in the post-war world. After a back-and-forth between Goll's and Breton's respective groups in the form of letters published in *Le Journal Littéraire* in August and September 1924, Goll published – "mere days before Breton's *Manifesto*" – the first issue of a revue titled *Surréalisme*.[566] This next section will examine several essays within the revue, with a detailed reading of Goll's manifesto and a discussion of the other contributions which follow.

---

[565] Pierre and Schuster, *Tracts Surréalistes,* José Pierre and Jean Schuster *Tracts surréalistes et déclarations collectives: 1* (Paris: le Terrain vague, 1982), 370-371 from Goll's article "A Rehabiliataion of Surrealism" in the August 16, 1924 issue of *Le Journal Littéraire.*

[566] While all sources consulted confirm that Goll's publication preceded Breton's manifesto, there is another problem with the timeline. Polizzotti gives October 24, 1924 as the date. Polizzotti, *Revolution of the Mind,* 189. However, Béhar gives the date as "the beginning of October" and cites a letter from Breton to Doucet from the 11th which mentions Goll's publication and how already two contributors had apologised to Breton for their involvement. Béhar, 'Regards sur Yvan Goll et les Avant-Gardes,' 90, 92. Stubbs gives the date of Breton's manifesto as having "finally rolled off the presses on 15 October." Jeremy Stubbs, "Goll Versus Breton: The Battle for Surrealism" in *Yvan Goll-Claire Goll: texts and contexts*, ed. Eric Robertson and Robert Vilain (Amsterdam: Rodopi, 1997), 74. This corresponds with Cahill's account of Goll's journal appearing on the 10th and Breton's manifesto appearing on the 15th. Cahill, *Zoological Surrealism*, 43, 49. With consensus regarding the order of events, but with the dates differing, I am inclined to accept Cahill's October 10 date for *Surréalisme.*



Surréalisme

OCTOBRE 1924

1

Directeur : Ivan Goll.
Collaborateurs : Guillaume Apollinaire, Marcel Arland, P. Albert-Birot, René Crevel, Joseph Delteil, Robert Delaunay, Paul Dermée, Jean Painlevé, Pierre Reverdy.

Fig. 2.2, *Surréalisme* cover by Robert Delaunay, *Place de l'Étoile,* Volume 1, October 1924

The revue featured pieces by members from across the Parisian avant-garde, including Marcel Arland (1899-1986), Albert-Birot, Crevel, Delaunay, Joseph Delteil (1894-1978), Dermée, Pierre Reverdy (1889-1960), Goll and Painlevé. Containing work from each "collaborator," Delaunay's contribution was in the form of an illustration of Place de l'Étoile (Fig. 2.2), the only visual artwork in the publication. Not all were necessarily feuding with Breton, and some claim to have been misled when they were asked to participate, not knowing that the journal was essentially an attempt by Goll to challenge Surrealist dominance.

Surréalisme featured works on various topics which nevertheless coalesced into a coherent and firm stance in support of Goll's conception of Surrealism, with no mention of Breton or the recent quarrel. Bonnet unfoundedly accuses Goll's revue of being "exclusively" art-centric, despite nearly all the contributors being writers, and that many of the essays either discuss poetry at length or are poetic works themselves.[567] In the following section, several essays found in *Surréalisme* demonstrate Goll's stance linking the material and Surrealism. Opening with its own manifesto, Goll set the materialist tone for the rest of the revue while paying homage to Apollinaire's legacy.[568]

Goll's manifesto begins with a striking opening line, "Reality is the base of all great art. Without it no life, no substance. Reality is the ground beneath our feet and the sky above our head."[569] Already the writer places us directly within the confines of what is concrete and material. He evokes reality and its importance as what keeps us grounded to the Earth, as present and unchanging as the heavens above. He continues, "Everything the artist creates has its starting point in nature."[570] This natural origin anchors his work and its ecological relation to the world. He ties this in with the Cubist group's beginnings, described as humble as the purest primitives that had so deeply reduced the object to its utmost simplicity, "most stripped of its value and would go as far as to glue a piece of wallpaper to the canvas, in all of its reality."[571] This resonates with Cubism's own materiality as well as a de/construction of the spatial depiction. Here we return to pure vision by means of devolution, a desire also expressed by Breton with the eye's "primitive state," but in a different manner.[572] Goll advances to his definition of Surrealism, taking the focus on reality and elevating it. He states, "This transposition of reality to a higher (artistic) plane constitutes Surrealism."[573] In essence, it is a desire to return to the most basic of elements of art and shift vertically to a different echelon. Goll's text underlines visuality in poetry to demonstrate a mixed sensorial experience in which the words of the poem are not just read, but they create filmic effects of a rapid succession of images that could be reached out and touched. Here we find a tactile image-text archetype. Furthermore, Goll purposefully uses terms like "elementary material," "elements" and "raw material" when discussing what constitutes Apollinaire's work. This foundational terminology relates to materialism and has an industrially scientific aspect.

---

[567] Bonnet, *André Breton,* 332. (My translation.)
[568] Thought to have been written by Yvan Goll. Bonnet, *André Breton,* 332. (My translation.)
[569] Goll, "Manifeste du Surréalisme," in *Surréalisme* 1 (October 1924). (My translation.)
[570] Goll, "Manifeste du Surréalisme," (My translation.)
[571] Goll, "Manifeste du Surréalisme," (My translation.)
[572] Breton, *Surrealism and Painting,* 1.
[573] Goll, "Manifeste du Surréalisme," (My translation.)

The manifesto continues in a discussion of art within the real and natural world. "The first poet in the world noted: 'The sky is blue.' Later another found: 'Your eyes are blue like the sky.' Long time after, someone ventured to say: 'You have the sky in your eyes.' A modernist will cry out: 'Your sky eyes!' The most beautiful images are those which bring elements of reality distant from each other as directly and as quickly as possible."[579] Within Gollian Surrealism nature is reality and reality is nature. When brought together, especially and particularly disparate places, something new and beautiful is created. This echoes Lautréamont's *Les Chants de Maldoror*,

> He is as handsome as the retractility of the claws in birds of prey; or, again, as the unpredictability of muscular movement in sores in the soft spot of the posterior cervical region; or, rather, as the perpetual motion rat-trap which is always reset by the trapped animal and which can go on catching rodents indefinitely and works even when it is hidden under straw; and, above all, as the chance juxtaposition of a sewing machine and an umbrella on a dissecting table![580]

Lautréamont invokes the natural world including birds claws, precise muscular movement, animal traps, and straw. If this passage from Lautréamont's influential work is to be the wellspring from which much of Surrealism was constituted, then Surrealism has always had a connection to the materialist and natural.

In the text, Goll continues to develop the importance of the image in the poetic and further relates it to a sensorial shift emerging within western culture. He says, "Thereby, the image has become the most appreciated attribute of modern poetry. Until the beginning of the twentieth century, the ear decided a poem's quality: rhythm, tone, cadence, alliteration, rhyme: everything for the ear. For the past twenty or so years, the eye has taken its revenge. It is the century of film. We communicate more by visual signs. And today it is speed that makes quality."[581] Goll appeals for an elevated reality, an evolution of people and a challenging of sensorial hegemonies, which ties in with my argument highlighting the Surrealist relationship with marine fauna. The change of the ear's monopoly signals a paradigm shift and a desire to question the capacities of human sensing. Goll underlines that it is necessary to deploy alternative sensorial means, displaying his use of Surrealism to progress in this new, post-war world. Though he did not employ sea creatures himself, his materialist relationship to the movement and his work with artists such as Painlevé bolster this parallel current of Surrealism.

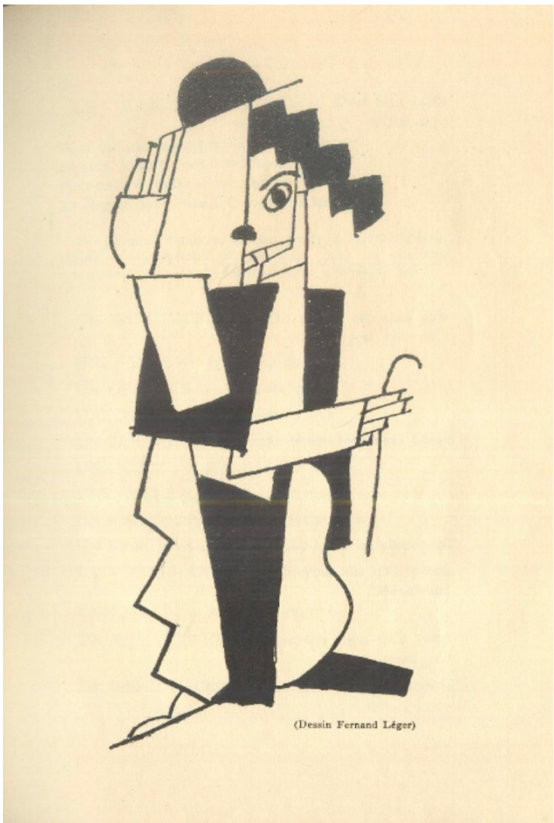
---

[579] Goll, "Manifeste du Surréalisme," (My translation.)

[580] Lautréamont, "The Songs of Maldoror," 216–217.

[581] Goll, "Manifeste du Surréalisme." (My translation.)

Film – still in its infancy – is being given the same consideration as one of the most ancient arts, poetry, by none other than a poet. Ricciotto Canudo's (1877-1923) pro-film manifestoes of 1911 and 1923 promoting the (sixth, and later) seventh art had been popular within the avant-garde circles of Paris. Goll already had an appreciation for the cinema, having had Léger provide illustrations for his ciné-poem *Die Chapliniade*.[582] (Fig. 2.3) Later, he mixed film into his work by way of a collaboration with Painlevé for his play *Mathusalem*. Both works indicate that Goll understood the richness of expression in multi-sensorial experience, with the image-text and other forms of intermediality. Artists such as Grosz, Marc Chagall (1887-1985), Miró, Eugène Berman (1899-1972) and Dalí also provided illustrations to accompany Goll's published writings.[583] A poet and playwright, the Franco-German's affinity for the visual supporting his work also speaks to the succession of Gesamtkunstwerk to which Canudo and other early proponents of cinema claimed as being the heir. If there was an attempt to incorporate all five senses, then we could consider Gesamtsinnekunstwerk.



---

[582] Jed Rasula, *History of a Shiver* (New York: Oxford University Press, 2016), 245

[583] Yvan Goll, et al, "The Chaplinade: A Film Poem," *The Massachusetts Review* 6, no. 3, (Spring-Summer 1965): 498.

Fig. 2.3, Fernand Léger, illustration from *Die Chapliniade*, 1920

Goll continues further, "Surrealism is not content to be the means of expression of a group or of a country: it will be international, it will absorb all of the isms that divide Europe and will bring together the vital elements of each one."[585] Here, Goll describes a Surrealism – that comes from creation – which situates it in opposition to that of Breton's desire for a rupture and disruption. Goll's writing evokes past issues with social and professional exclusion due to his German nationality during and after the Great War plus his ambiguous French status having been born in Lorraine, showing an openness to borderless movement of ideas and artistic creation. Europe had been badly fractured after the Great War, and his Surrealism would combine the vital elements from across the continent to create a new living entity. Relating life and death, "Surrealism is a vast movement of the time. It signifies health and will easily repel the tendencies of decomposition and morbidity which arise wherever something is built."[586] This indicates an interest in healing, salubrity and the way in which Surrealism attracts life, evolution and growth. Moreover, it is a movement that is presented as hale as it grows in strength from the collective; Goll's approach is not from a place of opposition, but rather construction, and while some aspects reflect the Surrealism that was to come, there are differences with Breton.[587]

Béhar states that Goll's manifesto "borrows the ideas of Reverdy on the image, those of Apollinaire on poetry like the transportation of reality onto a higher plane, of Delaunay on the function of art. In his eyes, Surrealism is a vitalism: it rejects any tendency of 'decomposition,' rejects any connection with Freud, whose theories about dreams, useful in the medical field, do not have to be transported to the field of poetry."[588] This vitalism within Surrealism further connects the movement with the natural sciences, most notably physiology. As a vitalism, it contains its own 'vital force' of autonomous, inexplicable processes functioning together, therefore having a life of its own.[589] These New Biology processes consist of Reverdy's, Apollinaire's and Delaunay's theories and ideas coalescing to become its own system in which the sum of images, poetry and art's function is greater than its parts. Vitalism also consists of "a view that there is a distinctive organization among living things" and is inherently anti-Cartesian.[590] Surrealism's taxonomic order here points to its materialist quality.

---

[585] Goll, "Manifeste du Surréalisme," (My translation.)
[586] Goll, "Manifeste du Surréalisme." (My translation.)
[587] This is in the same manner that an optimist and a pessimist can hold diametrically contrary opinions on the same set of facts. This may relate to Goll's affiliation with Barbusse's pacifist group, Clarté, as well as the fact that Goll evaded German conscription by absconding to Switzerland, thereby avoiding the trauma of combat.
[588] Henri Béhar, "Regards sur Yvan Goll et les Avant-Gardes," in *Yvan Goll (1891-1950): Situations de l'écrivain*, ed. Michel Grunewald (Bern: P. Lang, 1994), 92. (My translation.)

Taxonomy and vitalism fit in with the exploration of hierarchies challenged within Surrealism, pro-materialism and anti-ocularcentrism. Moreover, Béhar's discussion of Goll's refusal of death and decay is thereby an affirmation of life, further anchoring Gollian Surrealism in biology as the study of life. The rejection of Freud places the movement outside of ideas surrounding the unconscious, which is inherently intangible and errs away from the material. Despite Béhar's connection of Freudian work to the medical field, there is a gap between the physiological and the psychoanalytical that cannot be reconciled here.

Golls appeals for an evolution of the arts. "Entertaining art, ballet and music hall art, curious art, picturesque art, exotic and erotic art, strange art, restless art, selfish art, frivolous and decadent art will soon have ceased to amuse a generation which, after the war, needed to forget."[591] Goll's position is that art must adapt to the new world at the risk of becoming banal, leading to ennui. He claims that the world is ready to move beyond superficial numbing diversions that inoculated from the harsh, cruel trauma from the war. It is now time to channel creative energies and engage the mind with elevated and avant-garde intellectual forces.

In the following passage, Goll partially quotes Breton, "Their 'psychic mechanism based on dreams and the disinterested play of thought' will never be as powerful in ruining our physical organism which teaches is that reality is always right, that life is truer than thought."[594] This quote was likely taken from their recent feud. The phrase "the disinterested play of thought" is seen again in his published manifesto as "Surrealism is based on the belief in the superior reality of certain forms of previously neglected associations, in the omnipotence of dream, in the disinterested play of thought."[595] Given that the manifesto was previewed in Breton's last letter to *Le Journal littéraire*, Goll likely took Breton's words to argue that the intangible cannot stand up to the physical; that the body and life itself are stronger than the psyche. Goll's last line brings hope and leaves the reader to imagine a materialist Surrealist future. It fits into a Modernist stance of connecting with Romanticism, by connecting it to nature but then wilfully pulling it onward with the use of affect. "Our Surrealism rediscovers nature, the first emotion of man, and goes, with completely new artistic material, towards a construction, towards a will."[596] Once more, Goll is displaying a constructive approach upon which the movement can grow and evolve.

---

[589] William Bechtel and Robert C. Richardson, "Vitalism," in *Routledge Encyclopedia of Philosophy*, Taylor and Francis, 1998, https://www.rep.routledge.com/articles/thematic/vitalism/v-1.
[590] Bechtel and Richardson, "Vitalism."
[591] Goll, "Manifeste du Surréalisme," (My translation.)
[594] Goll, "Manifeste du Surréalisme," (My translation.)

Within *Surréalisme*, the manifesto was but a small component of the publication, but its position contextualises the revue's remaining contents. The first essay is titled "exemple de surréalisme : le cinéma" and is unsigned. However, given Goll's role, its position in the layout and his appreciation of films, he likely wrote this piece.[597] The author positions himself in support of cinema, its materialist qualities being rooted in reality and nature, and he expresses appreciation for its utility as a medium in Surrealism's future. It begins by stating that "film transcribes events which take place materially in reality and elevates them to a state which is more direct, more intense, more absolute: Surrealist."[598] He continues by stating that nothing is being invented, but rather arranged like a conductor in an orchestra. This acknowledges the avant-garde approach to cinema in which manipulation and splicing provides effects which come together in a sum greater than its parts.

Criticising the current approach to cinema, as being too close to theatre, he states that it should be seen as a relative of painting and working with light. This echoes Man Ray's work, in which removing the apparatus and employing photograms, he said, "I have finally freed myself from the sticky medium of paint and am working directly with light itself."[599] Goll's position demonstrates his enthusiasm for the new medium and aligns with Canudo's consideration of its artistic merits. He appreciates the optical effects afforded by the camera as tools acting upon the spectator and continues explaining how film is rooted in reality and is therefore Surrealist. "However, painting is an exact art, a Surrealist art, coming from an absolute reality. Nature is its base and its reason for being." Despite his main activities as a poet and playwright, Goll's high esteem of painting and cinema is not surprising. He worked alongside many painters and filmmakers, including Painlevé for some short clips for the backdrop of his play *Mathusalem* and wrote ciné-poèmes, which testifies to his openness to and favouring of intermediality in Surrealism.

---

[595] Breton, "Manifesto of Surrealism (1924)," 26.

[596] Goll, "Manifeste du Surréalisme," (My translation.)

[597] Fretz and Bellows claim that it was Painlevé but give no explanation nor source for this. He was not affiliated with the cinema in 1924. Fretz, "Surréalisme Sous-l'Eau," 49. Bellows, "Selected Writings by Jean Painlevé," in *Science is Fiction*, ed. Andy Masaki Bellows and Marina McDougall (San Francisco: Brico Press, 2000), 190.

[598] [Yvan Goll,] "Exemple de Surréalisme: Le Cinéma," in *Surréalisme* 1 (October 1924). (My translation.)

[599] Man Ray to Ferdinand Howard, April 5, 1922; quoted in Francis M. Naumann, *Conversion to Modernism: The Early Work of Man Ray* (New Brunswick, NJ: Rutgers University Press, 2003), 215.

One contribution which highlights the natural world as it relates to Surrealism is a one-page poem titled "bel occident" by Pierre Reverdy. The poem features generous amounts of natural and nautical imagery, invoking sea foam, rocks, sand, a ship, blood and veins, a hill and a sunset. Here the tone of the publication has turned away from manifestoes, militant appeals and epistolary evidence as Goll gives a poetic example of his materialist vision of Surrealist work. He had been the head of another literary journal, *Nord-Sud* (1917-1918), another publication that had been a continuation of *Les Soirées de Paris,* and had been friends with Max Jacob (1876-1944) as well as Apollinaire.[609] Thanks to his revue – with only sixteen issues – and its open and innovative reputation, which attracted great ideas as well as people, he was able to become close with a group of writers, including Breton, Aragon and Soupault.[610] However, Reverdy had been misled into participating in Goll's journal, only realising after publication.[611] This demonstrates that it was not only those who were aligned with Goll who embraced this Surrealist poetic natural materialism, and that this evidenced a general style at this time.

Another contribution which highlights the material element of Surrealism which laid the groundwork for future Surrealists to oppose Bretonian Surrealism and its metaphysicality while concurrently extending this into the marine is Crevel's one-page essay "je ne vendrai pas la commode de mon grand-père…". It is a continuation of the examples of Goll's Surrealism, rooted in vivid, natural, materialist prose. However, this time there is nostalgia, which was abhorred by Bretonian Surrealism, and expressions of sentiment, pain and despair. Crevel distinguished himself from his peers by having had "a 'spiritualist initiation' by a medium," which inspired Breton to have pseudo-Freudian sessions in September 1922, and Desnos quickly became adept at transforming himself into a conduit for automatist expression.[616] Crevel was also one of the other founding members of *Aventure*.[617] This led him to become close with Tzara, Éluard, Soupault and Breton. Aside from a brief exclusion in 1933, Crevel remained in Breton's circle until his premature death in the summer of 1935.

---

[609] Ades, *Dada and Surrealism Reviewed* (London: Arts Council of Great Britain, 1978), Hayward Gallery, Exhibition catalogue, 15. He also published a collection of texts titled *Sea Foams*, which included drawings by Picasso. Alain Rey, "Pierre Reverdy," in *Dictionnaire des écrivains de langue française* (Paris: Larousse, 2001), 1536.

[610] What happened to his friendship with them – particularly with Breton – from the time his journal folded to when he permanently retired to an abbey in 1926 to pursue his faith is a study in itself and would require further in-depth research, which would take this examination too far off of its path. Rey, "Pierre Reverdy," 1537.

[611] Béhar, "Regards sur Yvan Goll et les Avant-Gardes," 92.

Crevel wrote extensively and prolifically on art and artists including de Chirico, Man Ray, Dalí, Ernst, Sonia Delaunay (1885-1979), Paul Klee (1879-1940), Léger and Picasso.[619] In these writings, such as *Histoire Naturelle* on Ernst, Crevel evokes images of nature and science to create a text which would complement Ernst's works perfectly. In a piece on Klee, where there are myriad references to nature and science, he mentions Maurice Maeterlinck (1862-1949), an avant-garde Belgian, and his 1919 work titled "Les deux lobes."[620] This cerebrally referenced work – Agar in the next chapter will also reference the two lobes in her own writing – is filled with physiological and scientific language, but employed in a gracefully poetic fashion, and even mentions "positivist or scientific materialism."[621] This reference as well as the vocabulary from the natural world, and in spite of Crevel's experiments with hypnotic expression, demonstrate a strong link to materialism.

Following Crevel, avant-garde documentary filmmaker Painlevé, the focus of this chapter, presents his one-page "drame néo-zoologique." Above the text there is an editorial parenthetical anecdote which states, "Mr. Jean Painlevé, who yesterday had honours from the Academy of Sciences for a strongly realist work, reveals himself to be also Surrealist."[622] In addition, he was the youngest researcher to present a paper to the Académie des Sciences at this moment as well, presenting three papers alongside Maurice Parat in September and October 1924 regarding live observation of stained living cells.[623] Most importantly, however, would be in 1928 when Painlevé returned to the Academy to present film footage of a phenomenon whose theoretical process was confirmed by use of "intense magnification and temporal manipulation" of embryonic development in the stickleback fish, a relative of the seahorse.[624] Though the pioneer of microcinematography and microbiologist Jean Comandon (1877-1970) had used film in 1910 at the Academy, there was nevertheless a continuing aversion to the medium, contrasting with the enthusiastic response to photography in the previous century.[625] "Eighteen years later," said Painlevé in an interview, "it was still scandalous to show 'entertainment for the ignorant' to men of science."[626] Soon after his presentation at the Academy, Painlevé founded the Institute for Scientific Cinematography (ICS).[627] "In 1930, when Painlevé created the ICS, there was still no cinematographic service at the Ministry of Research but the idea that film could assist in observation, education and dissemination of knowledge was no longer marginal. For ten years, until the creation of the CNRS in 1939, the ICS was the main showcase of scientific cinema in France."[628] This demonstrated Painlevé's visionary resolve for film's use in documentation and for its ability to expand vision.

---

[616] Conley, "Robert Desnos," in *The International Encyclopedia of Surrealism*, vol. 2, ed. Michael Richardson (London: Bloomsbury, 2019), 222.

[617] Alain Rey, "René Crevel," in *Dictionnaire des écrivains de langue française* (Paris: Larousse, 2001), 454.

[619] René Crevel and Raoul Coquereau, *Écrits sur l'art et le spectacle: peinture, sculpture, photographie, cinéma, musique, ballet, théâtre, chanson, music-hall, cirque*. (Toulouse: Éd. Ombres, 2012).

[620] Crevel and Coquereau, *Écrits Sur l'art et le spectacle*, 48-49.

[621] Maurice Maeterlinck, *Les Sentiers de la Montagne* (Paris: E. Fasquelle, 1919), 175.

Painlevé's essay was published when he was still a young researcher and before he had made any of the films which would mark his place in cinematic and scientific history. In it, he uses technical and scientific language and elevates it to a whirling collage of zoomorphic imagery that Pollman compares to a Dada sound poem, "for which the evocative power lies in the sound and rhythm of non-sensical words; yet in the case of Painlevé's text, these words do have a real denotation."[629] In a similar emphasis on the rhythmic quality of the work, Cahill describes as "a series of strange facts offered in rapid bursts […] effecting a jagged meter suggestive of the syncopation of a hot jazz drum beat," where,

---

[622] Jean Painlevé, "drame néo-zoologique," in *Surréalisme* 1 (October 1924). (My translation.)

[623] Cahill, *Zoological Surrealism,* 41, 42-43.

[624] This will be discussed more below. Cahill, 142.

[625] Painlevé later wrote on Comandon. Painlevé. "L'œuvre de Jean Comandon," *Jean Comandon*, Hayez, 1967. Berg, "Contradictory Forces," 17.

[626] Hazéra and Leglu, "Jean Painlevé Reveals the Invisible," 172.

[627] Painlevé also worked alongside pioneering plastic surgeon Charles Claoué, whose surgeries were documented through the Association for Photographic and Cinematic Documentation in the Sciences. Berg, "Contradictory Forces," 17. Hamery, "Jean Painlevé et la promotion du cinéma scientifique en France dans les années trente," *1895. Mille huit cent quatre-vingt-quinze* 47 (2005): 3.

[628] Hamery, 4.

> the small turbellaria [marine flatworm] knows the embrace of their mouth […] this sacred little crustacean with short hair […] would prefer to be born of parthenogenesis than to touch those threads of the ovoviviparous mesostoma [marine flatworm] … The Turbellarias seized it, broke into it, pierced it and sucked it; an awful scream echoes and rejoins the lapping of the luminous interferences; the distorne cercariae [larval parasite] come out of their stagnating hosts, takes a look and terror encysts them.[630]

Painlevé successfully recontextualises these microscopic creatures to bring them beyond the real and stages them for the sake of scientific Surrealism. He brings life to these slime moulds, marine worms, alga and other microscopic animals in a way that showcases these creatures' beauty, typically hidden from the eye. Drawing from his own "agency of observation" and heavy on descriptions and actions, he anthropomorphises them by creating dramatic vignettes of their lives, which are as scientific and materialist as they are whimsical.[631] As Hamery describes the materialism present in Painlevé's first foray in avant-garde work,

> The interest of this 'neo-zoological drama' does not lie so much in its literary value as in the intentions of its author in an unusual quest who enjoys diverting scientific vocabulary. Painlevé thus takes the opposite side of Breton's group. While they desire to undermine the values of logic and rationality – to make a standard of the marvellous issued from the imagination – from automatic writing processes or dream state creations. In contrast, [Painlevé] shows the least contestable limits of reality, here as the scientific discourse, simply by decontextualising it. Specialised language becomes dramatic literary text. Surrealism appears in this displacement, thus suggesting the relativity of any referent.[632]

Hamery underlines Painlevé's innate ability to capture the excavated reality, revealed by displacement, and that there is no need to escape to other [dream] worlds to find the transcendental that lies within the empirical. This is the marvellous in reality. The "neo-" in the title highlights the recent innovations and a forward looking future within the "New Biology" of the twentieth century, one in which objective truth and expanded vision come together to reveal unseen realities. Later, we see a similar writing style from Breton himself in *Mad Love* where he writes,

> This dominion of the senses which stretches over all the domains of my mind, residing in a sheaf of light rays within reach, is, I think, fully shared from time to time only by those absolute bouquets formed in the

---

[629] Inga Pollman, *Cinematic Vitalism: Theories of Life and the Moving Image* (Chicago: University of Chicago Press, 2011), 152.

[630] Cahill, *Zoological Surrealism*, 45. Painlevé, "drame néo-zoologique." (My translation.) "hymnées" (which I translated to "hosts" as opposed to the *Science is Fiction* translation of "hymens") are also the hosts of these cercariae parasites, which are a kind of freshwater and tree-climbing, leaf-eating gastropod, but their name has perhaps since changed because the only source which appears dates to 1863 in a book titled *Précis élémentaire d'histoire naturelle (minéralogie, botanique, zoologie) : à l'usage des institutions et des autres établissements d'instruction publique*, (7th edition) by M. Zeller.

[631] Cahill, *Zoological Surrealism*, 47.

[632] Hamery, *Jean Painlevé*, 31. (My translation.)

> depths by the alcyonaria, the madrepores. Here the inanimate is so close to the animate that the imagination is free to play infinitely with these apparently mineral forms, reproducing their procedure of recognizing a nest, a cluster drawn from a petrifying fountain…Life, in its constant formation and destruction, seems to me never better framed for the human eye than between the hedges of blue titmouses of aragonite and the treasure bridge of Australia's Great Barrier Reef.[633]

Here he names different coral species amongst other natural elements, though not with Painlevé's technical language, in what Endt describes as "paradigms of automatist creation" which embody "Surrealist production."[634] This glimpse of Bretonian discourse long after his feud with Goll demonstrates a shift, and the myriad references to nature within a Surrealist context would easily have found its place amongst the other works in *Surréalisme.* As discussed, Breton would come to appreciate the materialist aspect of Surrealism, which was reflected in his work after Surrealism's first decade had passed. We will see Breton's interest in this reef again later in this chapter.

This was not the last of Painlevé's Surrealist works nor the end of his collaborative efforts with Goll. They would go on to work together again on the play *Mathusalem ou l'Eternel Bourgeois* for which Painlevé made five, 35mm black-and-white short films as part of the décor which totalled seven minutes and included captions.[635] Artaud had been cast in roles as an African hunter and a Cardinal, and there was a scene which was also seen in *Entr'acte.*[636] The films were projected throughout the duration of the play onto a background of white clouds; Goll had written the play in 1919, Painlevé made the films in 1926 and the play's debut was held in 1927 at the Théâtre Michelet.[637] Next, we will move to the revue's final essay, which will be followed by a further discussion of Painlevé's interwar films to demonstrate his ability to bring together the materialist and the marvellous while subverting hegemonic structures.

---

[633] Breton, *Mad Love*, 11-13.

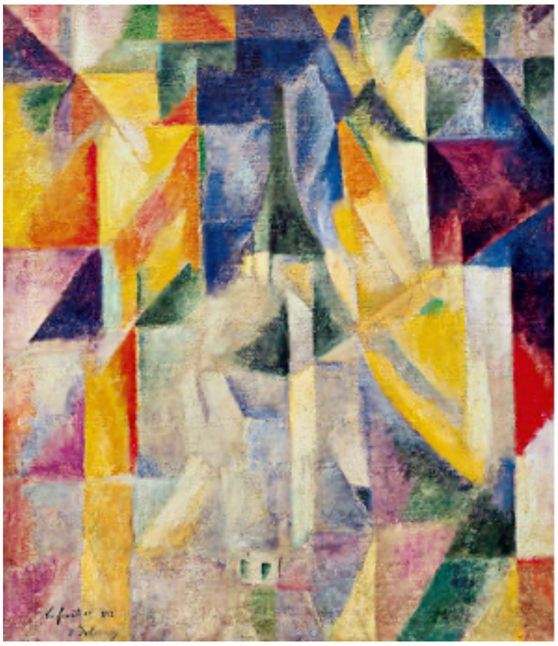
[634] Endt, "Reopening the Cabinet of Curiosities," 109.

[635] Berg, *Jean Painlevé* (Paris: Les documents cinématographiques, 1991), 65.

[636] In both films there is a procession with a hearse led by a camel. Looking at the chronology of these two films, Painlevé's in 1926 and Clair's in 1924, this would appear to be some form of plagiarism. However, Hamery points out that Goll's 1919 text, upon which *Mathusalem* is based, also features this exact scene. She attributes the coincidence to the anti-clerical and macabre humour popular amongst the avant-garde in France and that it would be seen again in *Un Chien andalou* and *L'Âge d'or.* Hamery, *Jean Painlevé*, 44.

[637] "Light Cone – MATHUSALEM," Lightcone, accessed September 17, 2020, https://lightcone.org/en/film-1907-mathusalem; "Mathusalem ou l'Eternel Bourgeois," Télérama, accessed September 17, 2020, https://www.telerama.fr/cinema/films/mathusalem-ou-l-eternel-bourgeois,23286.php

The final piece is nearly two full pages and is signed by GOLLIVAN. Titled "le peintre robert delaunay parle," Goll interviews Delaunay about his work. He recounts the time when Apollinaire was living in his studio while he was painting *Les Fenêtres* (Fig. 2.4) while Apollinaire was writing a visual poem, later published in *Calligrammes*, with an identical name, "at the same time, and in the same atmosphere of life…in this technique you [Goll] call Surrealist."[638] Only one frame is depicted but, but the name suggests plurality of vision, and with the fragmented field evoking the urban landscape which comprised Simultaneism as well as the Cézannean multi-retinality that would lead to the role of marine fauna as a post-war sensory model via Cubism. Delaunay's and Apollinaire's own quest for these liminal spaces would be seen again within Surrealism and its symbolism and optic simultaneity of interior and exterior realities.



(Left) Fig. 2.4, Robert Delaunay, *Fenêtres*, 1912, encaustic on canvas, 79.9 x 70 cm, Museum of Modern Art, New York

(Right) Fig. 2.5, Alvin Langdon Coburn, *The Octopus*, 1909, gelatin silver print, 56.2 x 42.6 cm, Museum of Modern Art, New York

Delaunay also mentions that the Paris of 1910 was the starting point of the new art of the century, that it was where the Cubists, as well as Cendrars, Chagall and many others were creating something new and in opposition to the Symbolists led by Wilde. This was reflected in his capturing of cityscapes – including the cover of *Surréalisme* – to display a new modernity and a new vision of modern spatial depiction that had been brewing prior to the war and even seen during Haussmann. This fits in with a larger trend of urban spaces that had been reconsidered through the artist's eye, such as Coburn's *The Octopus* in New York. (Fig. 2.5). These artists are displaying aerial vision shortly after the Wright brothers' first flight in 1903. Corburn's aerial photographic vision also links to Allmer's discussion of Hannah Rose Shell's work on camouflage and photography in the sense of the "complex interplays of figure and ground, and the various technologies of mimicry […] as forms of visual deception" seen here, which predate the Great War, but nevertheless portend innovations to come.[639] Allmer also highlights Shell's argument that connects the serial nature of aerial photography with the work of Marey and Muybridge "and the modernist tradition of experimenting with serial images."[640]

---

[638] Yvan Goll, "le peintre robert delaunay parle," in *Surréalisme* 1 (October 1924).

Delaunay's statement functions as support for Apollinaire's decision to choose Surrealism over the Symbolist-related Surnaturalism and aligns the movement with Cubism as opposed to Dada. According to the painter, the war would change everything. "But what is needed is a living art, an art which corresponds to the current state of things, to the industrial, economic vitality, a science of this century, an art containing phosphate and egg white…"[641] Delaunay is calling for progress to move beyond trauma, to push forward and not revert to sentimentality and nostalgia, which I argue that for all of Surrealism's anti-Proustian sentiment, did allow itself to be influenced by its emotions harboured toward the war. Instead, Delaunay argues that they must pick up where society left off pre-war, unburden itself and charge ahead with everything it has since gathered, building a bridge to connect and elevate society from the trauma of the past. This last piece wraps Goll's overarching thesis together. The ensemble of the works was discernibly and meticulously arranged, and the selection of the pieces as well as the contributors were part of Goll's calculation to overthrow Breton. From the opening manifesto to the supporting declarations, along with examples of Gollian Surrealism, everything was perfectly realised. The essays were bursting with realism, the natural world and materialism, and it even featured a closing statement of encouragement from Delaunay, whose Cubist-Orphist nobility contributed to the efforts to steer Surrealism out of Dada's gravitational field. This publication may have lasted for only one issue, but it was nevertheless precisely executed.

---

[639] Allmer, *Lee Miller*, 147.
[640] Allmer, 147.
[641] Goll, "le peintre robert delaunay parle."

In the end, Breton and his circle triumphed over Goll, but this demonstrates that Breton's papacy was not unchallenged. Perhaps had there not been post-war anti-German sentiment, Goll would have been less excluded from avant-garde circles, exercising a more indelible influence on Surrealism. Perhaps there would have been an official description in which it was *also* anchored in materialism, reality and the natural world in a legacy of Cubism in addition to the metaphysics, automatism and dreams stemming from a Dadaist nihilism metamorphosed into pure revolt.[642] Though Breton sought control over the movement from the beginning, this intensified after he published his *Second Manifesto of Surrealism* in 1929 and started excommunicating people from his group *en masse* due to their reticence to formally subscribe to and act on what Breton wanted for the future of Surrealism. Leiris, Desnos, Limbour, Vitrac, André Masson (1896-1987) and Boiffard would all later go on to collaborate with Bataille in *Documents*. There was also an influx of new members following Breton's second manifesto, recharging the group. The members of the *deuxième vague* included Tristan Tzara (1896-1963), René Char (1907-1988), Georges Sadoul (1904-1967), André Thirion (1907-2001), Maurice Heine (1884-1940), Dalí and Buñuel.[656]

The materialism in Goll's publication as well as the myriad elements discussed throughout this thesis demonstrate an undercurrent of Surrealism. Outside of Breton's sphere of influence, Surrealism becomes much more concerned with the marvellous of the everyday – the material, the tactile – rather than the mysteries of the unconscious. Moving into the next section, we will enter a discussion of Painlevé, who captured the underwater world in the cinematic marvellous. His films were equally poignant and educational due to his skilled camera and editing practices as well as narrative techniques which translated into anthropomorphic connections for the viewers. This will illustrate how his work epitomises the scientific materialist in the Surreal and how three interwar films within his œuvre embody the subversion of the hegemonic structures of ocularcentrism, gender roles and anthropocentrism.

---

[642] Audoin-Rouzeau and Becker, *14–18*, 103-104. Parkinson, *Surrealism, Art and Modern Science*, 38-39.
[656] Breton, "Second Manifesto of Surrealism (1930)," 194.

[Jean Painlevé, Scientist]

Painlevé revealed the sublime as a by-product of the excavation of scientific truth. In a continuation of this thesis' discussion of hegemonic structural subversion, this section considers Painlevé's techniques, approach and methodology which allowed him to capture the submerged uncanny. Then there will be a detailed examination of three interwar Painlevé films – *The Sea Urchins, The Octopus* and *The Seahorse* – which reveal the ways in which he challenged hierarchies and espoused the materialist in Surrealism. Painlevé's work distinguishes itself from other Surrealist films in that it was scientific first and Surrealist second. His dedication to the promotion of cinema in science distinguished him in a time when it was seen by many as frivolous and thereby substandard for the rigours of noble scientific research.[657] He endeavoured to institute the medium "as an instrument of research as often and as easily employed as the microscope."[658] This would later change, and until then Painlevé tirelessly promoted biological research through his many conferences and film projections, but the remainder of this chapter will focus on the Surreal and subversive aspects within Painlevé's marine science.

Painlevé's approach to his films was anchored in materialist science, nature and reality. Smaill locates Painlevé's gifted cinematographic work within the avant-garde and "as an experimental cinema, one that reflects on the function of sound and image and how it engages viewer perception through the use of tonality, texture, light and framing."[659] Best known for his documentaries on marine fauna, his work was appreciated by others within the avant-garde, including Surrealists.[660] Léger described Painlevé's 1930 study of skeleton shrimps and sea spiders, *Caprella and Pantopoda*, as 'the most beautiful ballet he had ever seen."'[661] Signatory of Breton's *Second Manifesto* and film critic, Sadoul said that "He dwelt in astonishment on the splendours to be found in a pool or a drop of water, on the likeness of those geometric patternings to this in the water paintings of Kandinsky or Picasso."[662] Sadoul also described the animals in his films as heroes, endowed with individual lives, ferocity, gracefulness and strange love stories.[663] Painlevé was not simply putting these creatures on display as wonders, he captured them in a way which allowed viewers to understand and connect with them as fellow members of the animal kingdom, using film techniques and diegetic prowess in a poignant and nuanced fashion.[664]

---

[657] Berg, "Contradictory Forces," 17.

[658] Jean Painlevé, "Preface," in *Le Cinéma scientifique français. Préface de Jean Painlevé.* ed. Thévenard Pierre (Paris: La Jeune Parque, 1948), vii.

[659] Belinda Smaill, "Encountering Animals: Re-viewing the cinema of Jean Painlevé," *Antennae: The Journal of Nature in Visual Culture* 42 (2017): 84.

[660] Painlevé made three different versions of each of his science films, "one version for scientists, a second for universities, and a third, which was shorter and set to music, for general audiences." Hazéra and Leglu, "Jean Painlevé Reveals the Invisible," 179.

[661] *Caprelles et pantopodes*. Berg, "Contradictory Forces," 19. Quoted from the newspaper *L'Intransigeant* December 23, 1930.

Painlevé enrolled at the Sorbonne in the fall of 1921 in pre-medical studies and changed to comparative anatomy in his second year where he studied under Paul Wintrebert, an embryologist specialized in fish and amphibians. He also studied at Roscoff Biological Station in Brittany, under the direction of Charles Pérez, an insect and marine invertebrate specialist. Cahill points out that the era in which Painlevé began creating his other-worldly scientific films coincides with changes in the study of the natural sciences at the Sorbonne.[665] In addition to innovations which allowed for new observation methods, Painlevé's programme renamed from the Laboratory of Comparative Anatomy and Physiology to the Laboratory of Comparative Anatomy and Histology. This discrete change from the study of the function of organisms to the study of microanatomy indicated a shift in scale as well as the emergence of the focus on cell theory in the life sciences. During this time there was also the influence of neo-Lamarckian-style research, which included an emphasis on observation in the field and pushed scientists to leave their armchairs and laboratories.[666] While not all Painlevé's documentaries were filmed at the sea, many were made using both seaside and indoor settings. For those filmed at his studio in Paris, he endeavoured to ensure hospitable aquarium habitats for his subjects.[667] He had to replicate their natural environment on a film set, while also ensuring that the lights did not overheat the tanks.

> Whether shooting in freshwater or saltwater, light poses a delicate problem. As in all studios, various lighting sources – ambient and spot – are necessary to illuminate a specific area. After compensating for the reflections and refractions through the water or the aquarium's glass, the correct amount of light must be determined: there must be enough light to be visible on film without, however, bathing the animal in so much light as to affect its behavior.

---

[662] Sadoul, *French Film*, 44.
[663] Sadoul, 44.
[664] Smaill, "Encountering animals," 83.
[665] Cahill, *Zoological Surrealism*, 34.
[666] Cahill, 39.
[667] Jean Painlevé, "Feet in the Water," trans. Jeanine Herman, in *Science is Fiction*, ed. Andy Masaki Bellows and Marina McDougall (San Francisco: Brico Press, 2000), 131-133. [Originally published as "Les Pieds dans l'eau." in *Voilà*, May 4, 1935.]

> Even in their natural surroundings, aquatic animals shun excessive light: they bury themselves in the sand, conceal themselves beneath algae, slip under leaves, hide in mud or under rocks. If in some cases they are attracted to strong light, it's only in the way moths are drawn to car headlights, and this type of behavior is not interesting. Some luciphiles, moreover, become luciphobes in captivity.[668]

This understanding of the animals' comportment allowed Painlevé to film them in a way which revealed their nature as close to the truth as possible. He knew that they would not behave the same way in captivity as in the wild, but he nevertheless went to great lengths to approximate the environments. Much of what he was doing was uncharted territory, requiring great amounts of trial and error as well as stamina in addition to understanding the creatures themselves. Creativity, innovation and an open mind were necessary at all moments to capture a single scene, such as when a fish gives birth.

> 'These animals are mobile, capricious, and completely unconcerned with the way you wish to film them. So you must simply yield to them, bow to their whims. And then, be patient. I waited three days and three nights, taking turns with Raymond, for the seahorse to give birth. He was in no hurry. By the time he was finally ready, we had gotten skinny!'[669]

The difficulty of capturing ephemeral moments was often overcome by technology, such as wiring a device that gave a shock if his head reached a certain angle from nodding off to sleep.[670] Like any other laboratory setting, Painlevé's experiments would sometimes fail, but he would typically apply his experience to his next trial; when he succeeded, it resulted in the marvellous.

Painlevé's introduction to the cinema was through acting. The film *The Unknown Woman of the Six-day Race* (Fig. 2.6), was never finished, but he befriended the cameraman André Raymond who taught him techniques to "achieve a time-lapse effect by disengaging the camera's crank, allowing only one frame per turn rather than the standard sixteen frames per second," which gave him the idea for a film.[671] Raymond would go on to collaborate with him on his first scientific documentary, shown to the Academy of Sciences, *The Stickleback's Egg, from Fertilisation to Hatching* made in 1927.[672] Though his first experience may have placed him on the other side of the camera lens, a 1930 *New York Times* article nevertheless describes Painlevé's origins as being, "on behalf of science that he entered the cinema."[673] Painlevé's work defies itself. It is Surrealist – and thereby artistic and embodying the marvellous – and documentary – and thereby academic, scientific and educational.

---

[668] Painlevé, 131.

[669] Léo Sauvage, "Institute in the Cellar," trans. Jeanine Herman, in *Science is Fiction*, ed. Andy Masaki Bellows and Marina McDougall (San Francisco: Brico Press, 2000), 128. [Originally published in *Regards*, 1935.]

[670] Smaill, "Encountering Animals," 93.

[671] Berg, "Contradictory Forces," 15-17.

[672] *L'inconnue des six jours*. Cahill, *Zoological Surrealism*, 141.

[673] "Jean Painlevé's Film" *New York Times*, June 29, 1930, 102.

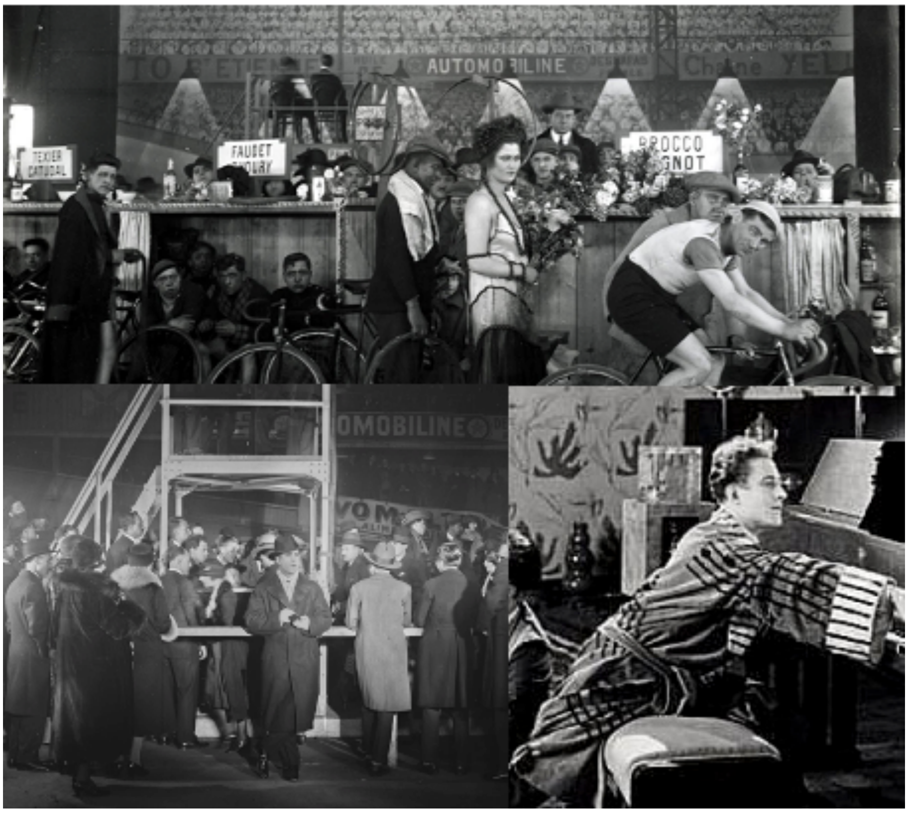


Fig. 2.6, (Top and Bottom Right) René Sti, Stills from *The Unknown Woman of the Six-day Race*, 1926
(Bottom left) Agence Rol, On-Set Photograph of Jean Painlevé March 6, 1926, glass plate negative, 13 x 18 cm, Bibliothèque Nationale de France (cropped)

Music was important to Painlevé.[674] He would play the piano at the Montparnasse haunt the Jockey Club while Kiki would sing.[675] He also worked closely with composers such as Maurice Jaubert (1900-1940) and Darius Milhaud (1892-1974) – the latter having also worked with Desnos on a cantata for the opening of the Musée de l'Homme in 1938 as well as with the GPO Film Unit, discussed in the next chapter.[676] These two provided music to enhance the movement of hermit crabs and seahorses in a syncopated rhythm. Painlevé also used music as a diegetic tool to add emotions ranging from suspense to joy. Cahill remarks, "In negotiating sound production, […] Painlevé confronted the strong anthropomorphic powers of cinema, which were amplified by music and commentary."[677] This vested interest in the harmonious multi-sensorial experience of his films displays the attention placed on soundtracks, which was out of sync with Bretonian Surrealism.

---

[674] This was revealed to me by the head of the Painlevé archives, Brigitte Berg during my second visit there on October 9, 2019.
[675] Hazéra and Leglu, "Jean Painlevé Reveals the Invisible," 178.
[676] Conley, "Robert Desnos," 226.

As discussed throughout this thesis, technology's role in expanding sight and restoring agency to the artist was crucial. In addition, a sense of control could also be accorded to the viewer by means of the excavation of truth, and that by having the ability to visualise this truth by means of technology, the viewer would take on a more active role of vision. Painlevé achieved this expansion of vision through film-based technologies. Cahill discusses how Jean Epstein (1897-1953) "called for the development of a cinema that could open human perception to perspectives and phenomena, that for reasons of speed, scale or ideological blindness, remained outside of the field of everyday perception."[678] This speaks to the consensus amongst photographers, filmmakers and other artists of this era who sought this expansion of sight through innovation. Cahill also mentions how the medievalist art historian Henri Focillon (1881-1943) praised cinema as early as 1935 for "potentially expanding the purview of aesthetics and aesthetic experience, which had 'made so little room for other orders of life,' toward a renewed curiosity regarding the more-than-human world of 'plants, animals, and shells.'"[679] Film's role as an instrument of observation, though unappreciated by the Academy at the time, was nevertheless seen and valued by other intellectuals for its ecological vision.

The inherent Surreal quality of underwater visualisation is addressed by Cohen, "In the medium of air, Surrealist photographers achieved such effects with highly crafted techniques, such as close-ups from unusual angles, lighting, cropping and the way they developed film. But what required an artist's skill to create in the medium of air is intrinsic to optics at depth."[680] As she explained, submerged vision naturally produced these very effects in which colour spectrums, angles, refraction and other aspects of perspective changed from constants to variables. Painlevé worked with water and its properties as an instrument through which he could transcribe his films to achieve his distinct aesthetic.

---

[677] Cahill, *Zoological Surrealism*, 96.

[678] Cahill, *Zoological Surrealism*, 21.

[679] Cahill, 21.

[680] Margaret Cohen, "Underwater Optics as Symbolic Form," *French Politics, Culture & Society*, Dossier: Technology, the Visual and Culture, 32, No. 3, (Winter 2014): 18.

Coinciding with Painlevé's early films, American marine biologist William Beebe, also discussed in the next chapter, published *Beneath the Tropic Seas* in 1928. It featured some of the first accounts of "how humans perceived in shallow coastal waters," saying in an echo of Léger's impression of undersea cinema, that "'no change need be made in the most weird, most ultramodern of ballets,'" as well as "'if one asks for modernist … designs, no opium dream can compare with a batfish or an angry octopus."[681] The natural Surreality under the ocean's surface, coupled with advancing technologies in both underwater exploration and cinematography revealed visions that were otherworldly.

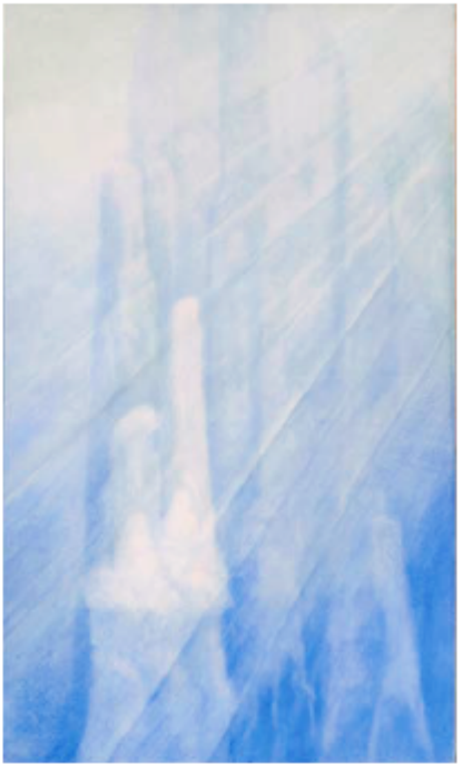
Before Painlevé, Beebe and Bostelmann, there was Walter "Zarh" Pritchard (1866-1956), "reputedly the first artist to work *en plein mer*."[682] As Beebe said, he "brought to canvas, evanescence of hue, tenuousness of tint eminently satisfying to the memory of the stroller among coral reefs."[683] Pritchard's paintings have soft lines and accurately depict the effects of mottled light refracted through water on underwater structures. (Fig. 2.7) They differ tremendously from Painlevé's films, which feature sharp contrast and clear vision. Cohen explains the optics behind Pritchard's cloudlike imagery below.

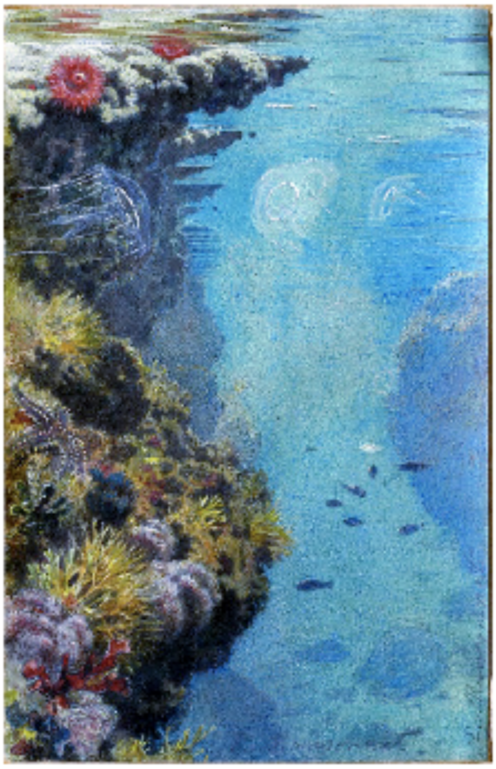
> Our expectation […] that an underwater scene would be clear and bright is the result of a long history of photographic technique working to compensate for what happens to light when seen through the medium of water, which is 800 times denser than air. When we see through water, unaided by artificial lighting or corrective lenses, we perceive a pervasive haze and pastel coloring. These conditions occur because water molecules slow down light, absorb it, and scatter it. […] [Pritchard was] among the first to recognize the altered submarine spectrum, [characterised by] distinctive color loss at different depths.[684]

However, Jovanovic-Kruspel et al point to an artist, the Austrian diplomat, painter, amateur naturalist and explorer Eugen von Ransonnet-Villez (1838–1926) whose paintings predate Pritchard, working in a similar – but not identical – fashion, with a weighted diving bell for the former and a diving helmet for the latter.[685]

---

[681] William Beebe, *Beneath Tropic Seas* (New York: G.P. Putnam's Sons, 1928), 41, 36.
[682] Cohen, "Underwater Optics," 3.
[683] Beebe, *Beneath Tropic Seas*, 38.
[684] Cohen, "Underwater Optics," 6.
[685] Stefanie Jovanovic-Kruspel, Valérie Pisani and Andreas Hantschk, "'Under Water' – Between Science and Art – The Rediscovery of the First Authentic Underwatersketches by Eugen Von Ransonnet-Villez (1838–1926)." *Annalen des Naturhistorischen Museums in Wien. Serie A Für Mineralogie und Petrographie, Geologie und Paläontologie, Anthropologie und Prähistorie* 119 (2017): 131. Cohen, "Underwater Optics," 4. Marion Endt-Jones, *Coral: Something Rich and Strange* (Liverpool: Liverpool University Press, 2013) 116, (Caption from Figure 77).





(Left) Fig. 2.7, Zarh Pritchard, *Massif de coraux dans la lagune de (Tahiti) par un fond de 35 pieds*, 1925, Musée Océanographique de Monaco
(Right) Fig. 2.8, Eugen von Ransonnet-Villez, *Motive from the entrance to the blue grotto of Busi* (modern-day Biševo, Croatia), c. 1884, watercolour executed after multiple on-site studies using a periscope, Musée Océanographique de Monaco

Ransonnet-Villez's works (Fig. 2.8) are visually closer to Painlevé in sharpness of vision, which I ascribe to the slight differences in methodological process. While Ransonnet-Villez worked underwater, he was completely enclosed, with his drawing surface and upper body contained within the bell, having consistency and clarity of vision between his eyes, his hands and his work.[686] He used other tools such as periscopes and made studies and pencil sketches while submerged, finishing the work after surfacing.[687] However, Pritchard in his diving helmet – and thus with a different vision between his eyes, hands and works – used a weighted easel, applied oil paints directly to animal leather canvases and used pastels to create works underwater.[688] I argue that their dissimilar rendering and appearance is likely due to the differences in opticality created by their respective equipment in addition to the disparities in methods of execution.

---

[686] Jovanovic-Kruspel et al, "'Under Water' – Between Science and Art," 140-141.
[687] Jovanovic-Kruspel et al, "'Under Water' – Between Science and Art," 142.
[688] Cohen, "Underwater Optics," 4.

Nevertheless, these early underwater visions gave the viewer access to spaces few had seen. They would later go on to be translated into the undersea fantasy world of Dalí's "Dream of Venus" pavilion at the New York World's Fair in 1939. (Fig. 2.9) Its ostentatious exterior with different elements and marine accretions recalls Agar's *Ceremonial Hat for Eating Bouillabaisse* (in the next chapter) in architectural form. Kachur likens the pavilion to the perception relating to the development of underwater photography while it also references the mythological Greek goddess, seen in *L'Étoile*.[689] The benthic-classical union are also revisited in Painlevé's and Agar's work as well.

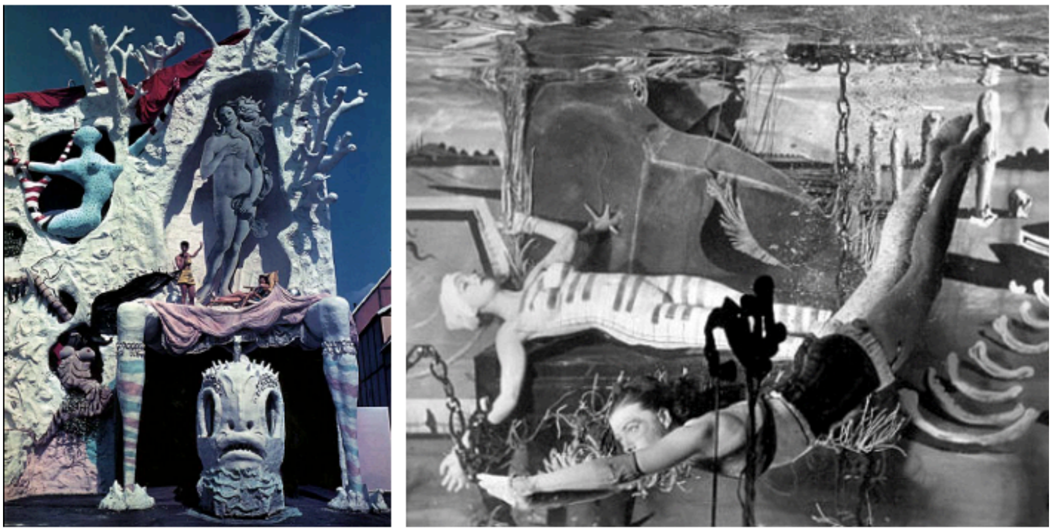


Fig. 2.9, Eric Schaal, Entrance and Interior of Salvador Dalí's "Dream of Venus" Pavilion at the 1939 New York World's Fair

While much of this discussion is focused on underwater vision accorded by the sea creatures, there is also the submerged vision accorded by Painlevé's films as a possibility of exploration. Though it is known that Painlevé shot footage with his modified Debrie Sept camera given to him by the head of production at Pathé in the Bay of Arcachon for *The Seahorse*, he recounted that the case would leak and ruin the film.[690] It is unclear if any parts of the final film feature any of the shots, though he did claim presence of the footage in an interview in 1986.[691] Cahill notes "the omnipresent aquarium reflections, the absence of currents or stirred-up sediments, the relative indifference of the animals and the steady cinematography," point to studio production.[692] Like any true scientific endeavour, though it may not have appeared in this film, his experiments to work with a film camera underwater paved the way for future innovations and would eventually result in successful submerged cinematography soon after.

---

[689] Lewis Kachur, *Displaying the Marvelous: Marcel Duchamp, Salvador Dalí, and Surrealist Exhibition Installations* (London: MIT Press, 2001),130.
[690] Cahill, *Zoological Surrealism,* 173.
[691] Cahill, 168-170. Hazéra and Leglu, "Jean Painlevé Reveals the Invisible," 178. Given that there are multiples of the films, perhaps the extant version does not have any, but other versions did have this "first underwater footage captured in a diving suit" he mentioned?

At this point, not many had sought to capture the underwater world on film, and "this mode of production, with the scientific technological advances it entailed, was not simply a mechanism for popularizing scientific knowledge; it was also deemed to be of significant artistic merit."[693] Painlevé fashioned his own tools to film images, giving the world a clearer vision than what the eye would normally have had in that environment. Cohen gives the dates for the very first photographs and films made underwater. "Underwater photographs date to experiments in Weymouth Bay by the British coastal expert William Thompson in 1856; however, reliable processes were only devised in the 1890s by French marine biologist Louis Boutan off Banyuls-sur-Mer. Boutan explained his techniques in *La Photographie sous-marine et les progrès de la photographie* (1900). The first underwater movie was made by the Scottish-American J.E. Williamson, along with his brother in 1914. In 1916, Williamson provided the underwater footage for a silent adaptation of Verne's *Vingt mille lieues sous les mers*."[695] In addition, Breton used a photograph by Williamson from a 1929 *New York Times* article in his 1937 *Mad Love* and mistakenly located the coral reef to the Great Barrier Reef instead of its native Bahamas, Elias compares this to a Magrittian treachery of images, and I would extend it to a very subtle play of the ongoing crisis of vision. *Mad Love*'s relevance here returns again for its importance in the subject of the image-text paradigm, with its twenty photographs reproduced with the collection of essays. Elias is unsure if Painlevé and Williamson were aware of each other's work at the time they were both filming underwater.[696]

Manipulation of vision was part of a greater Surrealist desire to use cinema to expand sight and reveal the truth by means of technology. As Cohen states, "Technologies enable new modes of perception, which transform the imagination and inspire the arts."[697] For Painlevé, this expansion had already been championed by Marey, Muybridge and Comandon, the latter of which had presented his own film-work to the Academy of Sciences, leading the way for others to follow. In addition to its value in visualisation of processes and diffusion, Painlevé highlights what he finds to be its greatest value, "the ability to view repeatedly the same phenomenon captured permanently, an enormous advantage, especially when the phenomenon is rare and therefore difficult or expensive to reproduce."[698] This had the potential to accelerate research to obviate the need to reproduce achievements made by others and proceed further. Scientists were suddenly able to work *in media res*. In his article, "Scientific Film," Painlevé describes the genre as "not only a tool, but a grammar and an art."[699] He also goes into detail on how the camera is the extension of the eye, giving access to otherwise physically-restricted locations, ranging from steel smelting – where the eye cannot withstand the heat – to filming solar flares and histological phenomena.

---

[692] Cahill, *Zoological Surrealism,* 168.
[693] Smaill, "Encountering Animals," 84.
[695] Cohen, "Underwater Optics," 2, 4.
[696] Ann Elias, "Sea of Dreams: André Breton and the Great Barrier Reef." *Papers of Surrealism* 10. Manchester: University of Manchester Press, (Summer 2013): 1, 8, 10.

> Originating as chronophotography from the work of physiologist Etienne-Jules Marey (who soon recognized all its applications), film is used to optimal effect in the unseen worlds of microscopy (whether it be ordinary microscopy, phase-contrast, or interference) as well as underwater. [...] Comandon, who created film microscopy, [...] produced hundreds of world-renowned films depicting surgery on an amoeba's nucleus, mushrooms that strangle worms, and blood corpuscles dividing, to name a few; François Frank, who also dealt with a myriad of subject matter and whose newsreel, in 1907 I believe, depicted the development of a sea urchin's egg.[700]

Painlevé understood the extents to which the eye could be extended and the ways in which technology facilitated the excavation of truth in ways that essentially challenged the dominance of ocularity in favour of non-human lenses.

Painlevé was navigating the uncharted waters of subaquatic cinematography, obliging him to construct many of the apparatuses used to create his films. During a visit to his Paris studio, a journalist described a camera used for slow motion that was rigged with a clock mechanism, allowing for the filming speed's modification by selecting a different cog, "Painlevé explains how everything is made out of old things, refurbished and transformed."[701] This informal installation was that of a scientist, an inventor. The technology was so new that any innovation was likely to have been done with a bit of *bricolage*. Like other

---

[697] Cohen, "Underwater Optics," 1.

[698] Jean Painlevé, "Scientific Film," trans. Jeanine Herman, in *Science is Fiction*, ed. Andy Masaki Bellows and Marina McDougall (San Francisco: Brico Press, 2000), 166. [Originally published in *La Technique cinématographique*, 1955.]

[699] Painlevé, 169.

[700] Painlevé, 165, 168.

[701] Sauvage, "Institute in the Cellar," 127.

Surrealists who worked with film, "tinkering" was part of reclaiming agency over the resulting work, and creating tailored instruments helped excavate the reality hidden underneath. One of the techniques for capturing images to allow the invisible to become visible was microphotography. Painlevé describes the truths which could now be revealed including,

> Sensitive ultraviolet film, combined with the mirror of a microscope, allows one to obtain the kind of amazing enlargements one gets with an electron microscope, but with live phenomena, which is not yet the case with the electron microscope alone. And with infrared film, one can film phenomena not visible to the human eye, to see beneath skin, to peek through veils of fog, to detect the roundness of the earth from high in the atmosphere.[702]

These are but some of the ways in which the technology can be used to expand vision, at times with multiple methods simultaneously. Using non-visible light from the ultraviolet and infrared spectrums to visualise structures and processes through apparatuses as well as for aerial reconnaissance speaks to the technological innovations which were refined during the Great War and continued to be developed. The electron microscope, which uses illumination from a beam of accelerated electrons, is still unable to be used with live cells. Painlevé's solution is similar to current practices, with combining technologies to observe live cells to "provide unique nanoscale information."[703] Here Painlevé reveals the Surreal in the science to demonstrate how vision can go beyond itself.

Abandoning race-car driving in 1925 after being sabotaged in a race, Painlevé turned to playing with speed in film.[704] Using different frame rates to project and employing timers to capture frames at different intervals, he played with time, creating an effect of contraction and expansion. Inspired by Marey, Painlevé gave the viewer an opportunity to observe physiological aspects and processes. As the journalist reported during his visit to Painlevé's studio,

> Varying the film speed is key to scientific cinematography. This is how Painlevé, in a report, describes it himself: 'At twenty-four images per second, no perceptible change in the tissue culture; at one image per second, one sees the culture grow as the cells divide and the chromosomes cluster together, then separate; at one image per fifteen seconds, the culture grows very quickly, allowing one to clearly observe the cells passing through all the phases of division and whose chromosomes are agitated by such rapid back-and-forth movement that one gets the sense of an accordion made of living matter; at one image per thirty seconds, one perceives only a general boiling of the cells and the construction of new tissue.'[705]

---

[702] Painlevé, "Scientific Film," 165.

[703] Niels de Jonge and Diana B. Peckys, "Live Cell Electron Microscopy is Probably Impossible," *ACS Nano 10* (2016): 9061.

[704] Berg, "Contradictory Forces," 12.

[705] Sauvage, "Institute in the Cellar," 127.

These techniques not only allowed for the visualisation of slower processes which typically spanned longer amounts of time or were too discrete to be caught by the eye, they also opened new windows of discovery. As Painlevé confirms, "recording the same phenomenon at different speeds sometimes prompts additional discoveries."[706] For Painlevé cinematography was an integral component of his research.

Bringing together technology and passion, Painlevé had a deep reverence for marine fauna and wanted to capture them visually to document his discoveries. He constructed his own waterproof case for his camera, which allowed him to find the beauty and elegance hidden under the surf and to project it onto a screen, even when he could only film a few seconds at a time and had to constantly resurface to reload.[707] According to Jager, "Painlevé's principal motivation was the pleasure he derived from creating these two-dimensional, infinitely detailed and large-scale works out of tiny sea creatures normally considered unworthy of attention."[708] This romantic desire to capture a hidden world was what gave his works poetry and allowed for incredible depictions of creatures rarely seen beforehand. He speaks to his approach to his work and how it brought him to dedicate his life to the marine.

> The job has its joys for those who love the sea. (For those, that is, who love the sea to the exclusion of all else.) Wading around in water up to your ankles or navel, day and night, in all kinds of weather, even when there is no hope of finding anything; investigating everything whether it be algae or an octopus. This is the ecstasy of an addict, the ecstasy of a hunting dog bounding across a field, crisscrossing it with euphoric expectation, even though each hidden crevice it stumbles over reveals, at most, a rotten potato.[709]

His enthusiasm was unending, and he revelled in his work and the wonders of the natural world. He empathised with the creatures and understood the fragile ecological conditions of their habitats as well as how to preserve them; everything was in a fragile balance and his intimate knowledge allowed him to ensure homeostatic continuity of the environments from which he procured his specimens.

> Indeed, the simple act of lifting a rock in low tide and failing to place it exactly where it was can cause damage. The rock, covered in algae, serves to protect a small pool beneath it from the sun. When exposed, the pool's inhabitants, along with anything living on the bottom of the rock, are destroyed. Further, anything living on top of the rock may have been crushed when turned over, and the vegetation between the ground and rock may begin to rot as well, preventing new life from forming around it.[710]

---

[706] Painlevé, "Scientific Film," 166.

[707] Brigitte Berg, "Maverick Filmmaker Jean Painlevé." *Journal of Film Preservation* 69 (May 2005): 19.

[708] Marie Jager, "Sea of Joy," *Jean Painlevé* (Birmingham: IKON, 2017) IKON Gallery, Exhibition catalogue, 207.

[709] Painlevé, "Feet in the Water," 136.

[710] Painlevé, 135.

He continues, revealing that he understands the butterfly effect that disturbing even one plant could have on an entire ecosystem. Zoological actors were challenging, and unlike directors with human casts, working within their fixed schedules required shrewd planning.

> A year can be lost this way since certain phenomena take place only once a year and during specific times. Furthermore, finding the animals again is not always easy; they may have moved from their previous location. Once captured, they must be brought back alive. Those living in the depths of the sea may die when brought to the surface. Those living near the sea's surface are very delicate and may die an hour after being taken from their environment, regardless of the precautions taken… Indeed, light often provokes such violence that it brings death to the actors, leaving the filmmaker without a cast.[711]

Painlevé saw them more than just subjects for his films and for research. Cahill notes that on several occasions both in 1935 and in the third episode of a series of interviews in 1988, he expressed regret for his occasional cruelty when working with them. Painlevé genuinely empathized with the animals he filmed, and though he did dissect some of the creatures, he has discussed at length his regret, and his questioning of the power dynamics between animals and humans, writing on the topic in an essay, *Pénétration pacifique* in 1936.[712]

Though Painlevé may have had great compassion for his subjects, he also appreciated them once the camera stopped rolling. Speaking again of the joys of his work, he humorously proclaims, "the greatest being the ability to eat one's actors – crab, shrimp, sea urchins, squid, all finely cooked in new and unusual ways. […] There are one hundred seven varieties of bouillabaisse to choose from. Should one use garlic or not? Prepare it au gratin? Sautéed in red wine? Add sardines? Classical gourmets may be offended, but the bouillabaisse of Marseilles cannot be imitated, so anything is allowed."[713] The nineteenth century naturalist Philip Henry Gosse also documented his gastronomic experiences with sea anemones to varying degrees of success.[714] Though Agar did not describe how she preferred the animals which dwelled atop her *Ceremonial Hat for Eating Bouillabaisse*, this anecdote echoes the discussion in the next chapter of the gastronomical link to the sea creatures in these artists' works.

---

[711] Painlevé, 132-133. This was also something also mentioned by Beebe as a difficulty in deep-sea research, discussed in the next chapter.

[712] Cahill, *Zoological Surrealism,* 176-177. For the 1988 interview, see the series *Jean Painlevé au fil de ses films.*

[713] Painlevé, "Feet in the Water" 136-138.

[714] Philip Henry Gosse, *A Naturalist's Rambles on the Devonshire Coast* (London: Van Voorst, 1853), 150-3. Referenced by Pandora Syperek, "The Blaschka glass models of marine invertebrates (*c.* 1860-1890)," in *Coral: Something Rich and Strange*, ed. Marion Endt-Jones (Liverpool: Liverpool University Press, 2013), 83.

Other parallels with Agar can be drawn, including their deferential use of capital-N Nature in their writing, as in Painlevé's 1931 popular science article "Mysteries and Miracles of Nature" and in Agar's 1928 diary entry. They both relied on the sea for materials, which added chance while also letting the natural world act as a collaborator.[715] "Sometimes the pressing need for a specific animal will bring one into contact with professional fishermen whose lobster traps, treacherous lines, and large, devastating nets will present you with an unlikely bestiary – exactly what you requested."[716] Much like the way Agar obtained the base for her sculpture *Marine Object* in a fishing village, discussed in the next chapter, Painlevé also relied on oceanic providence, as a form of the marine readymade.

Returning to the deep connection he had with the marine fauna he filmed, we will examine how his anthropomorphic connection to animals served as a cornerstone of his work. Painlevé's ability to juxtapose wildlife with familiar contextual situations to bring the viewers closer to the sea creature was pure alchemy. His unique approach to documentary and scientific film went beyond the pedagogical and into humanity's connection to the rest of the animal kingdom.

> Nature films tend to be straightforward affairs, offering a bird's-eye view…into a given creature's basic behaviors, and providing a compact package of sex and death that seems utterly natural. Rarely do they lead us to question our ideas about how we view other species, let alone humanity itself, nor do they regularly challenge our aesthetic assumptions. But […] the pioneering films of Jean Painlevé do precisely this, and in the process they prompt us to reconsider not only the role of imagination in science documentaries, but our strange devotion to inflexible categories of all kind.[717]

During Painlevé's interwar cinematic career, there was a rather earnest attempt to bring an intimate knowledge of these creatures to the surface. Both at the seaside and in his studios he drew the viewer in by anthropomorphization, showing pain, eroticism, savagery and comedy in a way that parallels the human condition. "Painlevé's films, then, do not simply substitute human characteristics for animal ones in portraying his subjects so much as they mix up our categories of human and animal."[718] In his narrated films, the effect is even more pronounced, as the viewer is guided both visually and aurally to understand the creature and its very nature. As Marks underlines, "optical representation makes possible a greater distance between beholder and object that allows the beholder to imaginatively project him/herself into or onto the object."[719] These relatable scenarios make it easier for the viewer to make the leap of faith in imagining that they can experience other sensations experienced by these creatures, particularly the ones normally denied to the human.

---

[715] Jean Painlevé, "Mysteries and Miracles of Nature," trans. Jeanine Herman, in *Science is Fiction*, ed. Andy Masaki Bellows and Marina McDougall (San Francisco: Brico Press, 2000), 119. [Originally published in *Vu*, 1931.]; Michel Remy, *Eileen Agar: Dreaming Oneself Awake* (London: Reaktion Books, 2017), 24.

[716] Painlevé, "Feet in the Water," 136.

[717] Ralph Rugoff, "Fluid Mechanics," in *Science is Fiction*, ed. Andy Masaki Bellows and Marina McDougall (San Francisco: Brico Press, 2000), 49.

[718] Rugoff, 54.

It could be said that this is not anthropomorphization in the sense that the animals' true characteristics are disguised by those of humans, "collapsing the animal into a human morphology, disavowing its specificity and difference from the human as the animal becomes a placeholder," but rather Painlevé is an interpreter, using his knowledge to translate their behaviour to create familiarity for the layperson.[720] He acknowledges a "nonhuman difference" in these animals without resorting to subjugation.[721] He relates his thoughts on anthropomorphization, describing its flaws,

> The most preposterous anthropomorphism reigns in this field: everything has been made for Man and in the image of Man and can only be explained in the terms of Man, otherwise 'What's the use?' This leads to observations that are inaccurate. For example, under a rock there lives a lobster that would be eaten by an octopus if not for the vigilant conger eel who benevolently protects it. Yet we forget that when the lobster sheds its shell and is thus soft for forty-eight hours, this same conger eel will swallow it up without hesitation.[722]

This lack of nuance reproached by Painlevé speaks to his dedication to revealing the truth. As a result of Painlevé's skilled translation, the viewer develops a veritable sense of empathy towards the creature, allowing for a deeper submersion into its world where for a few brief moments the viewer becomes the marine animal, blurring the line between human and beast, bringing them closer to their own animal nature as a challenge to anthropocentrism.[723]

Painlevé also employed his translator-interpreter skills in his popular science writing. This time using similes, he likens eels' feeding abilities to pneumatic mail tubes, describes the octopus' parrotlike beak and explains how "the anemone uses its multiple, sticky little arms to slip all sorts of goodies into a single, wide opening that serves as both an entrance and exit."[724] Through charming play of words that would even appeal to Bataille and an ability – without imposing human mannerisms as anthropocentric chauvinism – to reveal commonalities between humans and animals is one of the elements of Painlevé's work which made his films engaging.

---

[719] Marks, *Touch*, 5.
[720] Smaill, "Encountering Animals," 95.
[721] Smaill, 98.
[722] Painlevé, "Feet in the Water," 136.
[723] Marks connects a similar concept of shared embodiment to Bill Nichols and Jane Gaines' discussions on mimesis in which the viewer mimetically embodies the experience of what is being viewed, *Touch*, 8.
[724] Painlevé, "Mysteries and Miracles of Nature," 122

By creating this parallel, he inversed anthropocentrism because it forced the viewer/reader to appreciate the wildlife for its true nature while also displaying how their behaviour is akin to something familiar, instead of forcing the animal to take on ascribed human traits which it did not possess. Martin calls "the frequent – often droll – comparisons between human and nonhuman behaviour in his films have a savage, cruel edge," not unlike the philosophy of Bataille.[725] Another parallel between Painlevé and Bataille is their exploration of the *acéphale*. For the marine biologist, this is a category of molluscs, synonymous with bivalves, to be studied. However, Bataille's journey into this topic related to his secret society (1936-1939) and what Hollier describes as,

> This image of a human figure without a head [that] rejects both identification and adoration; it is neither immanent nor transcendent, neither man nor god. It is an alteration of the human form that eludes every identification and draws the meditating subject into a labyrinth where he becomes lost, that is, he metamorphoses, is transformed in turn, rediscovers himself only as other, monster, Minotaur himself. 'It is not me but it is more myself than myself,' says Bataille of the 'Headless Man.' 'His guts are the maze in which he has become lost himself, losing me with him, and where I rediscover myself being him, that is-monster.'[726]

Alteration of the human form by expanding vision or by exploring realms without the use of cephalic ocularity relate here. Metamorphosing or becoming more than oneself by taking on the capacities of these creatures or other beasts serve Bataille and Painlevé in their work. Despite diametrically opposite approaches, one from the study of life and the other with depictions of the anti-idealised-Vitruvian Man and a "declared war on […] the human head itself," they both challenged anthropocentrism.[727] More on individual instances of Painlevé's challenging of anthropocentrism with marine fauna will be discussed below. Moving to the final section of this chapter, there will be a detailed examination of a selection of Painlevé's films as they relate to the themes of this thesis. This will demonstrate Painlevé's use of his knowledge of both documentary scientific filmmaking as well as the use of sea creatures to subvert hegemonies.

---

[725] Adrian Martin, "Science is Fiction: The Films of Jean Painlevé," *Cinéaste* 32, no. 4 (2007): 65. [Also quoted in Smaill, "Encountering Animals," 85.]

[726] Denis Hollier, *Against Architecture* (Cambridge, MA: MIT Press, 1993), 64. [Quoted from Georges Bataille, "La Conjuration sacrée," *Acéphale*, no. I, June 1936.]

[727] Victoria Camblin, "Acéphale," in *The International Encyclopedia of Surrealism*, vol. 1, ed. Michael Richardson (London: Bloomsbury, 2019), 489-490.

Materialist science was an inherent part of Painlevé's work, which I locate as having been in service of subversion. Therefore, throughout this chapter, I have focussed on an emphasis of his films' relation to Surrealism while also highlighting their duality. In all three films explored below – *The Sea Urchins, The Octopus and The Seahorse* – Painlevé combines wit, emotion and technical observation to create captivating filmscapes. Painlevé and his work also embody another typically Surrealist pastime, "magical and creative rebellion" against contemporary civilization and the status quo.[728] Specifically by taking a critical look at Painlevé's place in this movement, it is also possible to interpret these films as subversion of hierarchies, whether it be related to the human senses, anthropocentrism or gender roles. Smaill describes Painlevé's work as featuring a "focus on observation and display, offering visual expression to that which is usually hidden as a means to convey scientific knowledge," which serve to reveal the hidden truth sought within Surrealism.[729] Painlevé's extra- and meta-ocular technique accounts for the camera's lens, the modifications expanding the apparatus' field of vision, as well as (eyes such as the octopus and the seahorse, or in the case of the sea urchin, its photosensors) the creatures' oculi that he often captures in close-up film shots. He accords this vision to the viewer, giving wonderous capacities of non-human vision. As mentioned, Painlevé made multiple versions of his films. The company which has reissued his works, Les Documents Cinématographiques, originally founded by Painlevé and now headed by Berg, has not explicitly indicated the category of their versions, but given their length and their lack of scientific specificity in the narration and/or intertitles, I am operating on the assumption that the films are those which Painlevé made for a general audience.

---

[728] Bruno Solarik, "The Walking Abyss: Perspectives on Contemporary Czech and Slovak Surrealism." *Papers of Surrealism*, Issue 3. University of Manchester Press, (Spring 2005): 7.

[729] Smaill, "Encountering animals," 86.

[Les Oursins - 1927]

In Painlevé's ten-minute silent film *The Sea Urchins*, two different species of echinoids are presented.[730] The first, the sand urchin, is quickly shown to give the viewer an introduction to the animal and its habitat. The second, the rock urchin, (Fig. 2.10) is featured more in-depth where the audience is brought up close and personal to see how it moves and feeds. Painlevé brings the camera to 200,000 times magnification, allowing the audience to see the ends of the urchin's spines to reveal its tools for eating, locomotion and sensing. The beauty of this magnification is extolled by Jacques Baron – who must have been inspired by Painlevé's own gargantuan creatures' projections – in his dictionary entry "Crustaceans" from *Documents*, "One day a painter friend said that if a grasshopper was the size of a lion, it would be the most beautiful animal in the world. Imagine a giant langoustine, a crab as big as a house or a shrimp as tall as a tree!"[731] Though it is not indicated in the intertitles, the spines and tube feet contain sensory organs, which allow for tactility and light perception.[732] Next, Painlevé reveals a sea urchin moving onto a rock, portrayed with accelerated projection, essentially animating the urchin while demonstrating that it is not sessile and that it possesses the capacities of auto-locomotion. The film ends with microscopic images of the tube feet, jaws and claw-like appendages in wild motion on the surface of the sea urchin's spines. These pincers, or pedicellaria, (Fig. 2.11) "have their own neuromuscular responses independent of the central nervous system. Each pedicellaria is basically an […] organ with its own set of muscles […] and sensory receptors."[733] Painlevé is displaying these protective and tactile appendages as an example of another one of its sensory modes.

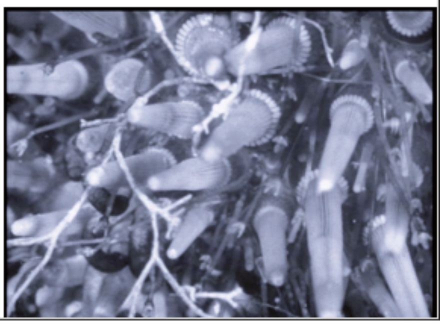
---

[730] See Heflin, Christina, "Jean Painlevé's Surrealism, Marine Life & Non-Ocular Modes of Sensing," *Cross-Cultural Studies Review*, Vol. 2, No. 1-2, 2020.

[731] Jacques Baron, "Crustacés," *Documents* nº 6 (November 1929): 332.

[732] Richard S.Fox, Edward E. Ruppert and Robert D. Barnes, *Invertebrate Zoology*: *A Functional Evolutionary Approach* (Belmont, CA: Thomson Brooks/Cole, 2004), 904.

[733] Giribet, *Invertebrate Tree of Life,* 123.



(Left) Fig. 2.10, Jean Painlevé, Close-up of a rock urchin from *The Sea Urchins*, 1927
(Upper Right) Fig. 2.11, Jean Painlevé, Magnified shot of the rock urchin's pedicellaria from *The Sea Urchins*, 1927
(Lower Right) Fig. 2.12, Jean Painlevé, Magnified shot of the rock urchin's spines from *The Sea Urchins*, 1927

Then he pans out to a full shot of the sea urchin filling the screen. Painlevé has brought the viewer "face to face" with the animal. Cahill brings to light, "*The Sea Urchins* complicates the implicit anthropometrics of cinematography, which, for practical reasons, refers to camera setups based on the anatomy of human actors (close-up, medium shot, full shot, etc.), tending to implicitly 'humanize' whatever it films."[734] This further blurs the human-animal barrier; the viewer cannot experience these sea urchins without implicit knowledge of the human body and must merge the two anatomies. It is the viewer's innate knowledge of their own bodies that forces them towards feeling as the animal would have felt. Hovanec notes that natural history films, "do not just *reveal* the natural world via an expansion of vision; they also work to *change* viewers' affective responses to nature. They foster a love for strange, pesky, and mundane species."[735] This creates a connection with the animal due to the alchemical reaction between the creature's behaviour and our own ability to empathise. Hovanec underlines the challenge to anthropocentrism, which she ascribes partly to the "inhuman vision of the camera."[736] Painlevé also at times included humans in scenes as they carryout scientific tasks such as specimen retrieval, and though they are not the subject of the film, they are nevertheless part of the footage, though as secondary elements. To extend Hovanec's point, these animals and humans are being viewed through machine vision, thus annihilating the existential hierarchy between the creature observed and the people because of the addition of an element unrelated to the animal kingdom. We are now one step removed, and the camera levels the playing field, leaving a question of the displacement of the human in relation to the animal in Painlevé's films.

---

[734] Cahill, *Zoological Surrealism*, 81.

[735] Caroline Hovanec, "Another Nature Speaks to the Camera: Natural History and Film Theory." *Modernism/Modernity* 26, no. 2 (April 2019): 246.

[736] Hovanec, 246.

In Painlevé's 1929 article *Les Films biologiques*, he described the surface of the sea urchin as seen through microcinematography as "the strangest, most Surreal decorative theme, evocative of a cataclysm, of a temple in ruins, of vanished flora, the magnifications of the spines presenting Doric columns, the pedicellaria worming their way into the optical field with spasmodic motions – in sum, a bit of a lost world."[737] (Fig. 2.12) The lost world brings to mind Pritchard's paintings, and this relation of structures with antiquity in a benthic-classical union is also seen in Agar's collage in the next chapter. Painlevé's technique, play of scale and speed introduce intimacy with the sea urchin, which, typically motionless and unremarkable, has now suddenly become livelier and more intriguing. In another parallel with Bataille, I reference the aforementioned transposition of Echinoderms'– starfish and sea urchins alike – mouths with anuses which he would have appreciated for its *bassesse* of the *informe* alongside Painlevé's work with the *acéphale*.

In the film, the viewer is given a brief introduction to the sea urchin's way of negotiating stimuli in the world as well as insight into the way it senses in its environment as well as the way in which it moves, all otherwise heretofore unknown to most terrestrials. This is all due to Painlevé's ability to display the animal's dynamic characteristics through magnification and close-ups. "The close-up, as the most visibly manifest technique of Surrealist facts and their discovery by means of the cinematic enlargement of comparative anatomy, may be an instrument of metamorphosis, wherein a critical regard at the different, dynamic aspects of animal life simultaneously effects a potentially transformative shift of orientation and perspective regarding humans."[738] Due to the limiting communicative nature of intertitles, Painlevé instead employed succinct captions and relied on the image to educate the viewer. The next film that will be examined is Painlevé's depiction of the cephalopod. He simultaneously displays the marvellous and the uncanny, using familiar traits drawing attention to its humanoid eye and its playfulness.

---

[737] Cahill, *Zoological Surrealism,* 83.
[738] Cahill, *Zoological Surrealism*, 90.

[La Pieuvre - 1927]

Painlevé's film *The Octopus* is a study of the Surreal in the natural world and serves as an example of anti-anthropocentrism. This is seen in two ways: first, the depiction of its eye and the description as akin to a human's and second, the octopus' anthropomorphization throughout the film. It begins with an octopus sliding across a platform. Next, it is escaping out of a window like a teenager sneaking out to join its friends for a party. (Fig. 2.13) Then the camera cuts to it quickly moving over a doll, then climbing in a tree and then again over a human skull. Cahill points out that the film "visualizes the productive contamination of zoology and comparative anatomy by its entry into spaces not traditionally associated with it."[739] This placement of the octopus out of its natural habitat and into a human scenery of play creates a liminal space in which the octopus-human line is blurred. After a cut to a sandy beach, the octopus slithers into the surf and swims away, demonstrating its agency. Next, one is shown swimming around in a tide pool, and the viewer is treated to close-ups of the animal. Intertitle: "Open eye, very human." (Fig. 2.14) The humanoid eye looks through the glass into the camera and makes eye contact with the viewer. Intertitle: "Breathing" showing valves moving in and out like human respiration – recognisable yet very strange to witness – especially as the camera shot is close to the point of abstraction. (Fig. 2.15) The uncanny scene is perfectly described by Freud's own definition of the term, "that species of the frightening that goes back to what was once well known and had long been familiar."[740] It is Painlevé's anthropomorphization that creates the uncanny.

> "Not that Painlevé was a director of horror movies (though you could argue as much), but his approach often engenders a discomforting intellectual uncertainty – which is one definition of the uncanny. […] In the case of Painlevé's films, it is our familiar concept of the 'human,' along with the arsenal of related categories, that can suddenly appear alien or suspect, leaving us with a haunting sense of our own strangeness even as we gape in wonder at nature's bizarre marvels."[741]

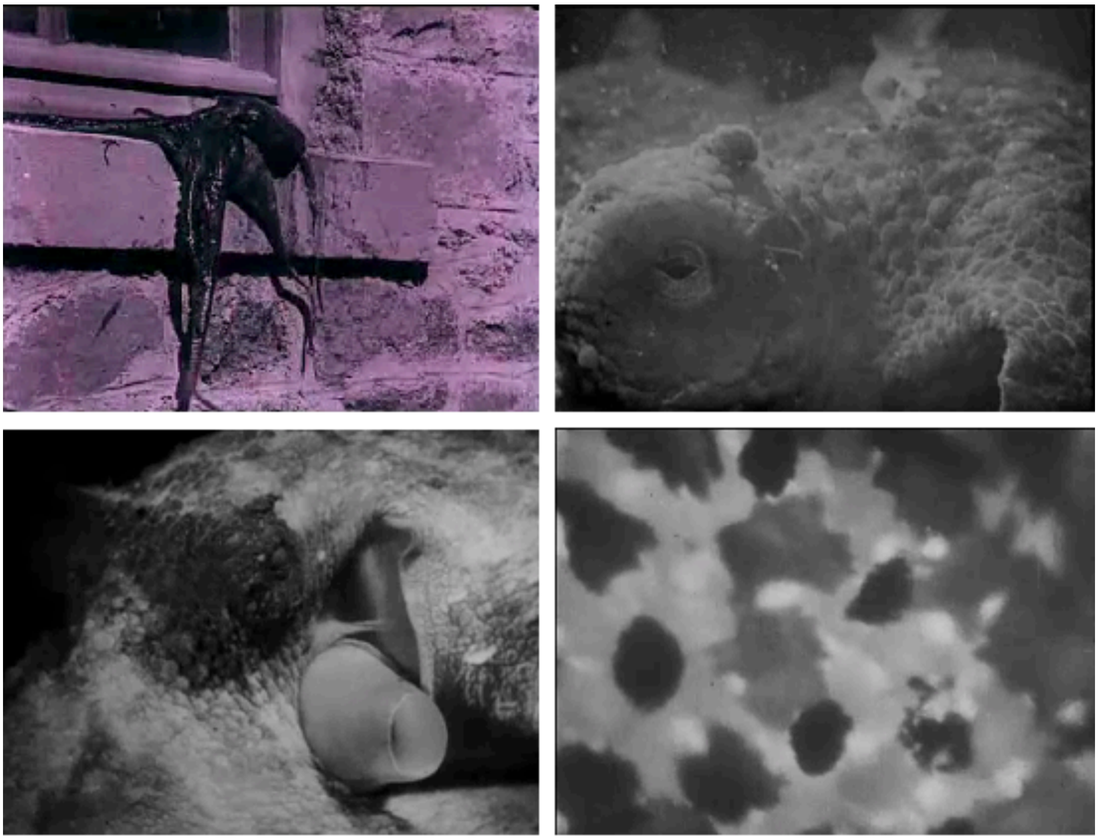
---

[739] Cahill, 63.

[740] Freud, *The Uncanny* (London: Penguin Books, 2003), 301

[741] Rugoff, "Fluid Mechanics," 49-50.

In addition to underlining the link between the popular psychoanalyst and these films, this quote also reminds us that Painlevé is doing nothing to make these creatures appear odd or otherworldly. They are being shown as mother nature created them. And as Elias confirms, in the early twentieth century the sea "was still surrounded by mystery" and "stood for the unknown."[742] Painlevé serves as a conduit through which the natural world displays its marvels.



Painlevé, stills from *The Octopus,* 1927
(Top Left) Fig. 2.13, Octopus Escaping; (Top Right) Fig. 2.14, Octopus Eye;
(Bottom Left) Fix. 2.15 Octopus Breathing; (Bottom Right) Fig. 2.16 Octopus Chromatophores

In his discussion of the Sand-man, Freud addresses the uncanny in the difficulty to discern whether what is seen is actually animate or lifeless, human or inhuman. There is also the importance of and the anxiety around the sense of intact vision in relation to the uncanny, with Freud's discussion of the self-blinding Oedipus and the blinded-by-sand victims of The Sandman, as well as the role of vision within the concept of what is familiar. Painlevé's image of the octopus – facilitated by Boiffard's hand pushing the octopus up to the glass – and its accompanying intertitle "Open eye, very human" fit in perfectly with Freud's discussion of the uncanny precisely because of the blurring of the human/animal distinction.[743] Given that many Surrealists were taken by Freud's findings at this time, it is no surprise that Painlevé's scientific documentaries were so revered by these artists. This also fits in with Breton's primitive state of the eye in that it resembles our own, but – belonging to a non-human animal – appears in a devolved form. Is Painlevé showing us purity of vision? As he stated, "the man of taste who finds himself at a cinematic event feels compelled to applaud the documentary, no matter what it is, for he has finally learned – indeed, we have drummed it into him – that the documentary is cinema at its purest."[744] The uncanny quality – where the viewer finds the recognizable in a creature never before seen at this proximity, the unknown being made known – of Painlevé's non-fictional films about marine fauna was what made them so exceptional and worthy of the viewer's attention, whether it be that of a scientist or of a Surrealist.

---

[742] Elias, "Sea of Dreams," 5

Despite the visual limitations of monochromatic film, Painlevé nonetheless successfully depicted the octopus's ability to change colour. In a close-up, there are small changes in the grayscale on the screen, but when a highly magnified part of the octopus's skin is shown, it is possible to see the movement of colour-changing cells. (Fig. 2.16) These cells are directly related to the octopus' sensory modes, which have a direct link to its eye. Giribet explains how this goes beyond looking "very human."

> Cephalopod sense organs are highly developed, the camera-type coleoid eyes having been portrayed as an example of evolutionary convergence with those of vertebrates, and—as in vertebrates— with a cornea, iris, lens, pupil, and retina, but this retina is of the direct type, unlike in vertebrates. […] Coleoids […] lack osphradia ["patches of sensory epithelium, a chemosensory organ located on or near the gills or on the mantle wall"][745] but possess numerous chemosensory and tactile cells on their arms (especially in the suckers). The visual system of cephalopods is especially important because it has triggered the evolution of their striking color display, which is elegantly controlled by the nervous system. The integument is full of chromatophores, pigment cells that can be individually expanded or contracted by muscular action, causing the pigment to be exposed (when expanded) or concentrated into an inconspicuous dot (when contracted). With this mechanism cephalopods are able to change color as well as texture, also through muscular action of the skin cells, almost instantaneously. These changes are not only used for camouflage but also for courtship and aggression.[746]

---

[743] Cahill, *Zoological Surrealism*, 71.

[744] Jean Painlevé, "The Castration of the Documentary," trans. Jeanine Herman, in *Science is Fiction*, ed. Andy Masaki Bellows and Marina McDougall (San Francisco: Brico Press, 2000), 149. [Originally published in *Les Cahiers du cinéma*, 1953.]

[745] Giribet, *Invertebrate Tree of Life*, 377.

[746] Giribet, 378. Cephalopods include octopuses, squid and nautiluses, whereas the subclass for coleoids only includes the soft-bodied octopus and squid, excluding the nautilus due to its rigid covering. For more on differences between vertebrate and octopus eyes, see F.D. Hanke and A. Kelber, "The Eye of the Common Octopus (*Octopus vulgaris*)," *Frontiers in physiology* 10 (2019): 1637.

Though it is not explained in the film, the eye and camouflage functions are placed together in the film, demonstrating their interrelatedness as well as this adaptive camouflage developed long ago by the octopus and more recently by the military.

Next, shown together in an aquarium, two octopuses thrash about violently. Intertitle: "Death," we see the demise of one of the cephalopods. After a brief trip to the beach to catch more specimens, the viewer is brought back to the studio aquarium to see an agitated octopus writhing back and forth in front of the camera. Then to finish the viewer is shown two more octopuses in the tank squaring off against a crab in a fight to the death. Octopuses: 1, Crab: 0.

Compared to Painlevé's film on the sea urchins, which was made the same year, there are some differences visible in *The Octopus*. Given the different natures of these two marine animals, it was certainly easier for the artist to create a more captivating story about the cephalopod due to its mobility and curious appearance. While Painlevé did manage to create more dynamism than anticipated in the sea urchin due to his use of acceleration and microcinematography, the octopus is admittedly more easily engaging to a general audience. For the public, however, Painlevé's films singularly brought out more than just the animal nature of the creatures. He demonstrated how they negotiated the world around them, and he made them relatable to humans.

The anthropomorphizing of these creatures can be seen as problematic due to what Cahill describes as typically dismissed as "a narcissistic and epistemologically lazy manner of seeing the reflection of man's image and human values in the nonhuman world."[747] As stated, Painlevé does not impose human traits upon the animals, but rather translates them into a familiar language. I argue that it creates a point of contact between the viewer and the animal, leading to not only a more impactful understanding of the science behind the film, but it also displays the commonalities between the human and these creatures, challenging the primacy of the human. The empathic resonance between animal and human was achieved by the artist, making for an understanding of the marine on an affective level, and an introduction to a completely different world. Painlevé's films were concurrently advancing the research, documentation and knowledge of marine life and were as Surreally entertaining and beautiful as they were educational.

---

[747] Cahill, *Zoological Surrealism*, 97.

[L'Hippocampe - 1934]

The last film that will be discussed here is a prime example of the challenging of hegemonic structures while also showcasing materialist Surreal science. Like *The Octopus,* Painlevé's *The Seahorse* – made between 1931 and 1934 – uses his interpretative skills to anthropomorphize the sea creatures, thereby challenging human primacy by creating a bond between the audience and the seahorses.[748] In addition, it provides an instance of gender role subversion in that the film depicts the male seahorse's distinctive trait of carrying fertilised eggs throughout gestation and later childbirth. The presentation of a reversal of biological roles in which the male seahorse gives birth instead of the female of the species was what struck the general public the most and was reflected in the press reviews after its release, making it his most commercially successful film. MacDonald states, "Painlevé uses his cinematic report on seahorses to do what he sees as progressive gender politics; he wants us to learn not only *about*, but *from* this strange fish."[749] Indeed, Painlevé even stated that he sought to redistribute the labour and bring forth the collaborative nature of parenthood, "I wanted to re-establish the balance between male and female."[750] This subversion of gender roles was not incidental on Painlevé's part and demonstrates an ongoing desire to challenge norms.[751] As Cahill points out, "Surrealists were fascinated with the strange eroticism, zoological anomalies, and convulsive beauty of the film; certain feminists recognized in it another model for the sexual division of labour, while traditionalists and conservatives saw in it a celebration of maternity and paternity. […] *The Seahorse* provided a perfect sign of the 'contradictory forces,' to borrow Painlevé's description of the creature, at play in the film as well as in interwar France."[752] This metamorphosis of gender roles was reflected elsewhere and will be explored further below.

---

[748] Smaill, "Encountering animals," 85

[749] Scott MacDonald, "Up Close and Political: Three Short Ruminations on Ideology in the Nature Film." *Film Quarterly* 59, no. 3 (2006): 10.

[750] Berg, "Contradictory Forces," 23.

[751] Breton could have benefitted from a lesson from the seahorse. Jacqueline left him with their baby for nearly six weeks due in part to her role as "nanny," meaning that she had likely been saddled with all the responsibility of Aube's care. Polizzotti, *Revolution of the Mind*, 390-395.

[752] Cahill, *Zoological Surrealism*, 162.

In another instance of gender-role defiance in nature, Painlevé discusses the midwife toad in a 1931 article, parenthetically referring to him as Mr. Alytes – his genus name – who "comes to soak his packet of eggs" each evening.[753] This nocturnal toad is another species in which the males are charged with the responsibility of the eggs – by having the "rosarylike strands of gelatinous capsules" attached to its waist and leg – from fertilisation until hatching.[754] Here we see Painlevé once again displaying examples of non-conforming creatures which flout gender convention. Painlevé blurred lines, displaying sexuality outside of a binary system and placing it within a spectrum upon which the being – regardless of species – is placed individually. Hayward states, "Dominant heterosexual, masculinist fantasies that define much Surrealist imagery were reworked to invoke a different kind of sexual economy, one not predicated upon essentialist, human-centered, sexual difference."[755] As suggested here, these displays of male responsibility for offspring challenges gender norms as well as anthropocentrism.

In contrast with his previous films discussed, which were silent with intertitles, Painlevé has finally given in to "the talkie," which stimulates the viewer's senses further. With Milhaud's music and the disembodied narrator's voice, the world of the seahorse is demystified as the viewer is given a glimpse of Painlevé's aquarium habitat filled with dozens of seahorses. We are informed of its prehensile tail, used to anchor itself to objects and attach to each other. Painlevé brings out the animals' tenderness, playfulness and affection when they interact with each other, and their tails intertwine. (Fig. 2.17) As Rugoff takes attention away from anthropomorphization, he reveals a hidden aim of Painlevé,

> Though Painlevé mischievously calls our attention to minor similarities of appearance between certain creatures and humans, his films are much more deeply engaged with studying what the narrator of one film calls the 'grace and terror of gestures.' Among these are 'gestures' that we can hardly resist reading in human terms: seahorses, for instance, linking their tails as if holding hands… On one level, moments such as these seem to function in the films mainly as amusing interludes breaking up the dry scientific accounts of an animal's biology, but they also serve to create an uncanny effect as they prompt us to try to reconcile the irreconcilable: the utterly strange appearance of such creatures with our own familiar mannerisms.[756]

Painlevé seeks this connection, which he facilitates through the camera, calling for us to relate to them. Later Painlevé shows a male seahorse in painful contractions, while the narrator explains the birthing process with both wit and compassion, bringing the viewer to imagine its pain and sympathize with the creature. In addition to the scene of the seahorse in labour, the different anatomical parts of the animal are displayed, including full-screen magnified shots of tiny structures like the eye, heart, swim bladder, dorsal fin, and respiratory organs. (Fig. 2.18) "The image encourages proximity, bringing the viewer astoundingly close to the filmed object in visual terms (so close that we can see inside the body of the seahorse)."[757] Further on, the film speed is slowed down to allow the viewer to observe the mechanism of the seahorse's beating heart. He also depicted the animal's breathing and ability to change colour, echoing these presentations in *The Octopus* six years prior.

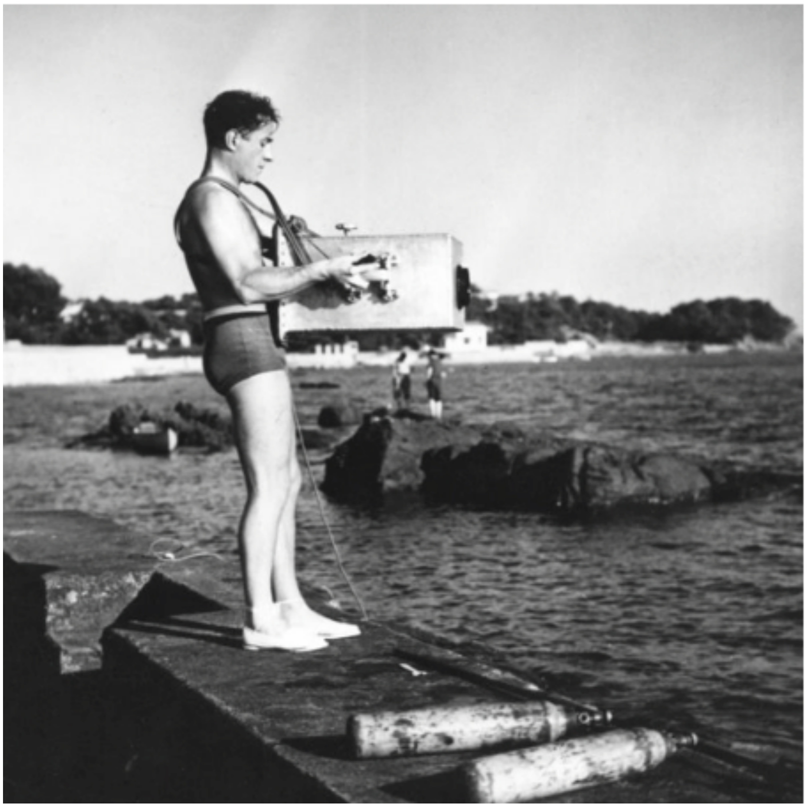
---

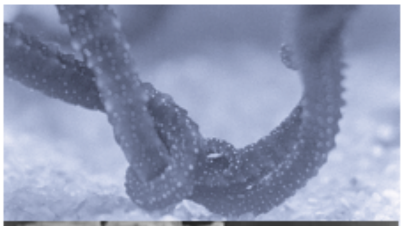
[753] Painlevé, "Mysteries and Miracles of Nature" 120

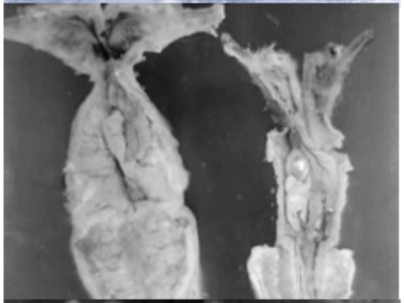
[754] "Midwife toad," *Encyclopædia Britannica*, accessed December 08, 2020, https://www.britannica.com/animal/midwife-toad

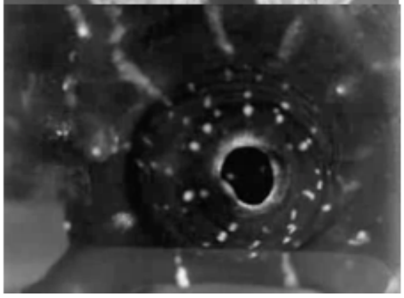
[755] Eva S. Hayward, "OctoEyes," *Frontiers in Communication* 3 Article 50 (February 2019): 7.

[756] Rugoff, "Fluid Mechanics," 51.









(Left) Fig. 2.19, Jean Painlevé with his modified Debrie Sept camera and diving equipment, 1935
(Right) Film stills from *The Seahorse*, 1934 (Top) Fig. 2.17 Seahorse Tails;
(Middle) Fig. 2.18 Dissected Seahorses; (Bottom) Fig. 2.20 Seahorse Eye

Part of the film's success was also from the fact that viewers were seeing new worlds for the very first time. Filming coincided with technological advances in both film and underwater exploration. (Fig. 2.19)

---

[757] Smaill, "Encountering animals," 93.

> The film's primary experimental aspect – in terms of conducting research on and by film – concerned underwater filmmaking and the possibility of pushing the traditions of field research even further than the tidal pools and ship decks on which it relied…it…marked its legacy as one of the "first" films shot fully immersed underwater rather than though a glass-bottom boat, aquarium, or submerged column, as John Ernest Williamson used in the Bahamas in the 1910s.[758]

While this pioneering detail was used as a marketing tool, Painlevé nevertheless allowed many to see these creatures and their details for the first time. Painlevé presented full-screen images of the seahorse's eye multiple times throughout the 15-minute documentary, reminding us of our source of vision. (Fig. 2.20) He brought the human to the animal, erasing the distance and allowing new channels of communication to open. He invited the viewer to see as the seahorse sees and take on underwater vision. Cohen states, "Perception beneath the water […] would appeal to modernisms that explored an emotional palette of wonder as an antidote to bourgeois aesthetics and society […] at once otherworldly and completely secular. Surrealism was the most famous of these movements, and a number of Surrealists drew on the aquatic world to give this wonder spatial expression."[759] Underwater vision is nothing like terrestrial vision. Perspective as well as light refraction give the viewer different vision and light sensing. Human sensory modes are at a disadvantage beneath the water and benefit greatly from adapting to those of marine fauna.

This subjectivity through the camera's lens provides insight into the lives of these creatures, and as Marks pushes us to question the role of anthropomorphism in stating, "When subjectivity is so thoroughly decentered from human characters and onto animals, […] air and light themselves, it seems necessary to ask how one identifies with such a film. Identification is certainly possible if one gives up some degree of anthropocentrism and seeks to feel a sympathy, born of respect, with these other objects. Identification […] involves a decision whether to identify with the humans who are in the process of dissolution, an exercise in self-erasure; or to move beyond anthropocentrism and find common subjectivity with animals, plants, and even less visible and organic 'life' forms."[760] Painlevé pre-emptively answers this by interpreting the seahorse's body language throughout the film, anthropomorphizing it and tells the viewer that while its eye's movement gives it a worried look, the shape of its mouth gives it more of an appearance of boredom.

---

[758] Cahill, *Zoological Surrealism*, 168.

[759] Cohen, "Underwater Optics," 3.

[760] Marks, *Touch*, 137.

As Smaill confirms, it is "the narration and images crucially combining to produce the film's Surrealism."[761] Comparing the appearance of the animal to a King Charles Spaniel (Fig. 2.21) goes beyond anthropomorphism and into what I call *trans-zoomorphism* – a phenomenon in which a more familiar animal is employed to help the viewer to feel more at ease with a more esoteric creature – this placement serves as a way of connecting deeper with this undersea creature, which is an ongoing endeavour within the interwar work of Painlevé. As Cahill describes, "Seahorses evoke the strange encounters, unexpected couplings, exquisite corpses, and juxtapositions that Surrealists placed at the heart of their poetic practices and that filmic montage and superimposition render concrete. Like the creature it studied, the film comprises a series of contrasting elements."[762] Breton's idea of the exquisite corpse was that of a fragmented yet unified body, be it image or text, which perfectly embodies the idea of Painlevé's film about the seahorse.[763] This emphasizes the film of the seahorse as opposed to the animal itself, as it is the lens through which Painlevé presents the image of the creature that is Surreal.

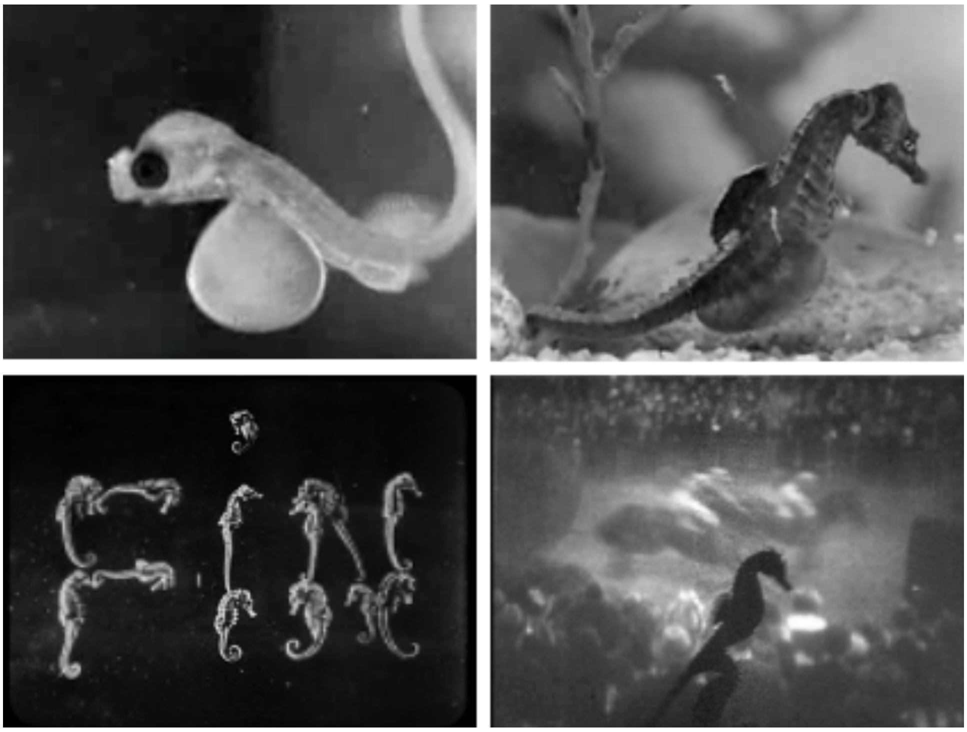
Then later in the film, while the seahorse is giving birth, the narrator speaks of the anguish in the male seahorse's eyes as it breathes laboriously and writhes in pain while its belly ejects new-born seahorses – also known as fry – over the span of several hours. With image and commentary, viewers are guided through the world of the seahorse and cannot help but to feel its pain as it holds on to a branch with its tail and goes into labour. (Fig. 2.22) Once again Painlevé brings us to practically feel the pain of the poor sea creature as it agonizingly expresses first the fry and then later while expelling the postpartum gas from its pouch. The depiction of the seahorse reverts to a lighter side of the study with juvenile seahorses playing with each other, reminiscent of human children at a playground. To continue the light-hearted note and in his own uncanny manoeuvre, Painlevé ends the film with a humorous wink while discussing the unique quality as a vertically swimming fish while seahorses frolic in front of a televised horse race visible behind the aquarium before ending with seahorses arranged as an intertitle, playing with the image and text. (Figs. 2.23 & 2.24)

---

[761] Smaill, "Encountering animals," 86. Smaill also acknowledges the inherent anthropocentric nature of the narrator, that they are "authorized to describe, name and categorize animals, thus encouraging a sense of human mastery in relation to an animal other – mastery over the knowledge to explain and the mastery of audiovisual virtuosity." Of the three films addressed here, *The Seahorse* is the only work with voice-over narration. Smaill, "Encountering animals," 93.

[762] Cahill, *Zoological Surrealism*, 178.

[763] Lyford, *Surrealist Masculinities,* 25.



Film stills from *The Seahorse*, 1934 (Top Left) Fig. 2.21 Baby Seahorse, or Spaniel?
(Top Right) Fig. 2.22 Seahorse in Labour;
(Bottom Right) Fig. 2.23 The End of *The Seahorse*; (Bottom Left) Fig. 2.24 Seahorse Horserace

The film highlights the animal's quality of being one of the few animals in which sexual role reversal occurs. The transfer of the eggs from the female to the male during mating and their subsequent fertilisation leaves the male seahorse saddled with gestation and childbirth. There are parallels to be drawn between these creatures and Apollinaire's *Mamelles* in which sexual roles are reversed, and the father bears the offspring, meaning that gender role subversion is the basis for Surrealism. The film and the choice of subject challenge gender roles where the female human is burdened with these responsibilities. The exploration and consideration of an alternative method of procreation in which the functions are reversed allows for further questioning of other previously established modes of life and the status quo. "In his photos, films, and writing, Painlevé was inspired by the way in which the denizens of the marine world thwarted

Enlightenment categories, which he also allied with bourgeois morality."[764] This strikes a note with the hegemonic structures that the artists highlighted throughout this thesis were looking to subvert.

Additionally, though while it was not rare for women to broach the subject at this time, the fact that a male Surrealist artist was exploring this theme is remarkable. As Allmer notes, "whilst Surrealist thought radically challenged hierarchies, it often remained blind to its own gender politics, locked in a heterosexual, sometimes homophobic, patriarchal stance positioning and constructing women (and never men) as artists' muses, femmes-enfants, virgins, dolls and erotic objects."[765] More specifically Breton was known for relegating women in Surrealist circles to the role of muses, not equals; rarely artists of their own right deserving of respect and consideration.[766] Agar confirms Breton's ideas of a woman's place within the movement recalling in her memoir, "amongst the European Surrealists double-standards seem to have proliferated, and the women came off worst. Breton's wife, Jacqueline, was expected to behave as the great man's muse, not to have an active creative existence of her own. In fact, she was a painter of considerable ability, but Breton never mentioned her work."[767] Chadwick describes the condition of women within Surrealist circles as "the image of man's inspiration and his salvation."[768] Painlevé's unconventional desire to depict this role reversal shows yet another way in which he was using marine life to challenge structures.

The larger picture of the condition of masculinity following the carnage of the Great War is essential to contextualise the significance of Painlevé's documentary film which depicts the male seahorses giving birth. Lyford states, "the postwar society in which the Surrealists lived was rife with images promoting traditional social roles for men and women: images of robust manhood and female maternity cropped up everywhere as if they were antidotes to the terrible memories evoked by the sight of veterans' wounded bodies."[769] As stated earlier, this provoked a reaction from the Surrealists who sought to rebel against the government's efforts and "destabilize the gender roles that had cemented traditional ideas about the family, one of the key institutional building blocks of French national identity."[770] Though she does not specify if Painlevé was particularly reactive to this notion, it nevertheless displays an ongoing theme within the zeitgeist. Looking at the work of Painlevé as a whole, he took his Surreal work one step further by subverting the anti-family stance held by many Surrealists, which would thereby turn this subversion on its head: the male seahorse is depicted instinctually fulfilling its parental obligations with a sense of stoicism and duty, which contrasted with Breton's aversion to families, before changing his tune when he became a father himself.[771] Painlevé never married his long-time partner, Geneviève Hamon (1905-1987), nor did they have children. He also kept to the outskirts of Surrealist circles, which allowed him to avoid obligations to create from within its confines and definitions.

---

[764] Cohen, "Underwater Optics," 15.
[765] Patricia Allmer, *Angels of Anarchy: Women Artists and Surrealism* (London: Prestel, 2009) Manchester Art Gallery, Exhibition catalogue, 13.
[766] Rosemont, however, challenges this generally accepted notion within the study of Surrealism. She points out that Breton and his circle rallied against the enemies of feminism: religion, the state, family, the military, and other things she describes as other "ruling male chauvinist obsessions." She uses this to argue that their position in fact rendered them as allies to feminist ideology. Penelope Rosemont, *Surrealist Women: An International Anthology* (London: Athlone Press, 1998), xliv. My interpretation locates a divide between their theoretical ideology and their everyday lives, as their stance appears to have been a rebellion against society and the status quo rather than a fight for equality amongst the sexes.
[767] Eileen Agar, *A Look at My Life* (London: Methuen, 1988), 120-121.
[768] Whitney Chadwick, *Women Artists and the Surrealist Movement* (London: Thames and Hudson, 1985), 13.

Lyford also points out that at this time, "ideas about the existence of a so-called third sex and debates about the rise of an emphatically 'homosexual aesthetic' became increasingly popular."[772] This meant that ideas beyond the binary nature of sex were already being explored in France, though it is unclear whether this was in a theoretical, academic realm or within popular society. There was also the great popularity of Barbette, a Parisian cabaret performer, who at the end of each performance would reveal a masculine body which had been hidden under makeup, wigs and fancy dresses, exposing another betrayal of the image. (Fig. 2.25) Lyford locates Barbette and sexual metamorphosis in a discussion of "corporeal integration of social and sexual opposites – male and female."[773] The idea of sexual ambiguity was indeed on the minds of many at this time. However, the popularity of Painlevé's film tells us that many non-scientists were implicated in observing the specific phenomenon of male childbirth, and there was a certain amount of novelty for many spectators. Essentially, the film about these curious-looking fish was taking what was a simple biological fact and a basic construct within society for humans – that the females of the species are the ones who bear the offspring – and inverting it. This went beyond ideas of gender or a male performer in makeup: this was nature showing us that nothing is as it appears.

---

[769] Lyford, *Surrealist Masculinities,* 4.

[770] Lyford, *Surrealist Masculinities,* 5.

[771] Polizzotti, *Revolution of the Mind*, 386. Though still not in a role of providing care, only as no longer disliking children.

[772] Lyford, *Surrealist Masculinities,* 1, 42. In a footnote, Lyford includes the following references, "The growing literature on the so-called third sex in France at the time included the work of Willy (Prof. Dr. Lery-Lenz), such as *Le Troisième Sexe* (Paris: Paris-Editions, 1927) and *Encyclopédie de la Vie Sexuelle* (Paris: Aldor, 1934)" (205).

[773] Lyford, 177.

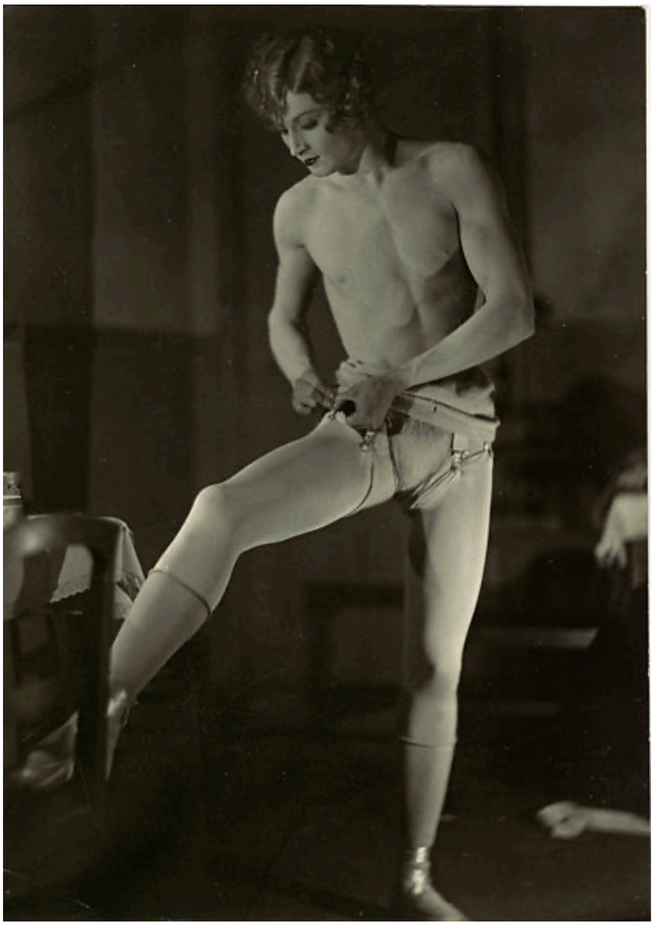


Fig. 2.25, Man Ray, *Barbette Dressing*, 1926, gelatin silver print, 10.5 x 7.5 cm, Metropolitan Museum of Art, New York

In the next chapter, we will cross the Channel to discuss Agar's work before turning to an overview of the birth of the British Surrealist movement and a few of its founding members. This will begin with an examination of Agar's career as well as three elements of her work – one sculpture, one collage and then a discussion of certain archival elements – which all work in the service of subversion. Then there will be a consideration of networks of friendships and their significance relating to the interrelatedness of the movement and Agar's place within various avant-garde circles. After a brief discussion of memories of space and culture as well as how Agar subverted gender roles, there will be an overview of some of the key elements of the establishment of the British branch of Surrealism and its major actors. Lastly, as in this chapter as well as the previous one, there will be an analysis of a periodical, in this case, one that was published in honour of the International British Surrealist Exhibition, featuring excerpts from conferences and a consideration of how these pieces fit into a larger discussion of interwar Surrealism.

CHAPTER THREE – EILEEN AGAR

Not many women were found within early British Surrealism. This alone makes Eileen Forrester Agar notable. Not because she was a token woman Surrealist in England, but because instead of being relegated to the place of muse or lover, she took a seat at the table beside the men. Her independence and passion for her work led her to travel and exhibit extensively, and she enjoyed a prolific career spanning nearly seventy years. Much of her work relates to the natural world, especially the sea – from the littoral to the benthic – and all the life within it, defined here as the marine. This chapter will demonstrate how her use of marine fauna expressed a desire to expand sensory regimes, challenged gender roles and blurred the animal-human boundary ensconced in anthropocentrism. Moreover, Agar's engagement with materialist science drowns out the scholarly assertions of oceans as representative of the unconscious or dream state, placing it squarely into a materialist scientific frame of inquiry. Her broad spectrum of work consists of photographs, sculptures, paintings and collages. While the physical and representative inclusion of sea creatures in her works confirms her engagement with the marine specifically, her interest extends well beyond the ocean to other areas of the study of life. This is evident in her art, as well as the archives she bequeathed to Tate Gallery.

She has no catalogue raisonné, but she has nevertheless received modest attention since her passing. Her work has been labelled as having a "playful accent," a disserving description if the writer does not discuss her work beyond these few words.[774] While Agar's approach was blithe, I find this description of a Royal Academician infantilizing and dismissive. Though banal, when echoed through time, an artist risks being overlooked and ignored in favour of researching and exhibiting "serious" artists, not just the ones who are "playing at" art. This study of Agar and her work with the marine is based on her autobiography, published shortly before her death, a few books on the artist and several consultations of her archival materials held at Tate Britain. This chapter will consist of an overview of the artist's life and career, then a discussion of three elements of her work, which will then lead into the scientific nature of her art. Throughout, there will be a discussion of the overarching theme on the challenging of the hierarchies of ocularcentrism, gender roles and anthropocentrism. Lastly,, there will be a discussion of networks within the British Surrealist movement, terminating with an issue of the *International Surrealist Bulletin*, published following the London International Surrealist Exhibition and featuring figures involved in the birth of Surrealism in Britain.

---

[774] Adam Biro, *Dictionnaire Général du Surréalisme* Paris: Presses Universitaires de France, 1982), 12. (My translation.)

Agar's interest in the arts began when she was a child and was nurtured once at boarding school. This artistic curiosity was encouraged by several schoolteachers including her painting mistress, Lucy Kemp-Welch (1869-1958), whom Agar recalls as a "Royal Academician who specialized in painting heavy carthorses ploughing […] who reassured me that I should always have something to do with Art."[775] This support from a successful female artist remained with Agar. Another influence was her music master, Horace Kesteven (1870-1951), who was her gateway to the cultural world, giving her "a definitive shove towards the painter's life."[776] He introduced her to literature, theatre and art, instilling knowledge of general culture, a domain neglected at home. Kesteven's own home featured paintings by known artists, and Agar visited her first artist's studio with him. This would also be her first glimpse of Paul Nash's (1889-1946) paintings, an artist who would later have a significant impact on Agar in both her professional and personal life.

Despite expectations regarding proper education and marriage Agar defied her family and chose a different path. She recalled, underlining the Great War's effect, it "had left a scar. I had a great feeling of unease, and wanted to do something that I considered more worthwhile than the usual repetitive routine of marrying and having a brood of children, who would probably be slaughtered in the next war."[777] She continued to resist marriage and motherhood. While accompanying her mother on a holiday to a French spa town, she met a count who candidly announced he was looking for a wife. Agar recalled, "I told him equally frankly that I would not do as I was determined to be a painter."[778] When it was suggested she meet a potential suitor, a Belgian Prince, she again demurred. "The mere thought of meeting a Belgian, prince or no prince (I disliked Brussels sprouts) put me on my mettle. I thought I would be damned if I was going to have a dozen children to help uphold the Belgian aristocracy."[779]

---

[775] Agar, *A Look at My Life*, 25.
[776] Agar, 36.
[777] Agar, 34.
[778] Agar, 36.

She read John Stuart Mill's essay "On Liberty" as well as Malthus, Samuel Butler, Wilde, Dostoevsky and Tolstoy, whose work strengthened her resolve to become an artist and remain as independent as possible.[780] "Such reading coincided with a growing awareness of a sense of 'inner direction' and a strong desire to control her own activities."[781] Throughout her life, she challenged the traditional gender model for a woman of her social class. She took classes at the Byam Shaw School of Art in Kensington while attending finishing school. When it became apparent she was pursuing an artist's career in earnest, her parents eventually gave permission to attend Leon Underwood's school, a prerequisite set by Professor Henry Tonks at the Slade School of Art before attending the Slade from 1921 to 1924.[782]

Tonks arrived at the Slade shortly before Agar. Prior to this, he studied medicine, became a surgeon and taught anatomy at the London Hospital medical school from 1892 while concurrently following and subsequently teaching art classes.[783] This exposure – via her tutelage under Tonks and his anatomy lessons – to the medical-art field was likely to have been Agar's first foray into the blending of art and the biological sciences.[784] Later, in 1928, Agar and her partner Joseph Bard (1892-1975) temporarily settled in Paris. This would be a pivotal moment for her as an artist and for her Surrealist work. While there, she studied with the Czech Cubist František Foltýn (1891-1976), visited Brâncuși's atelier and met Breton as well as Éluard.[785] This time spent in Paris underlines her Cubist instruction in the dismantling of the visual field and what was soon to come. "In Paris I understood the lesson the Cubists were driving home. Juan Gris particularly impressed me, though I always had the urge to develop more strange ideas."[786] Agar would go on to subvert ocularity through her assemblages, paintings and sea creatures whose own modes of perception do not rely on a clear field of vision.

---

[779] Agar, 35.
[780] Anna Whitworth, "The Angel of Anarchy: A Study of the Work of Eileen Agar up to the Second World War in the Context of English Surrealism" (MA diss., The Courtauld Institute of Art, University of London, 1985), 2.
[781] Whitworth, 2.
[782] Enrolment was part-time, and only on the condition that the family Rolls chauffeur her. Agar, *A Look at My Life*, 43; Ann Simpson, "Chronology," *Eileen Agar, 1899-1991*, ed. Ann Simpson (Edinburgh: National Galleries of Scotland, 1999), Scottish National Gallery of Modern Art, Exhibition catalogue, 89.
[783] Remy, *Dreaming Oneself Awake*, 16.
[784] Agar, *A Look at My Life*, 93. Agar also recounted the story of a human skull stolen during one of Tonks' anatomy lessons by her future first husband Robin Bartlett. After their separation, it came into her possession. She decorated it with gold paint and decorated it with shells. She quotes T.S. Eliot and/or Shakespeare, "'Those are pearls which were his eyes.'" Agar, *A Look at My Life*, 94. It is now part of her archival holding at Tate, TGA 9222/3/2/1.
[785] Jeffrey Sherwin, *British Surrealism Opened Up: From France to England* (Heaton, Bradford: Northern Artists Gallery Ltd, 2014), 12.

While in Paris, she frequently visited the Museum of Natural History, where she connected with the "prehistoric creatures displayed there, learning about the complexity of animal structures and sensing the links which can be established with the remotest past of humanity, a fascination which was to re-emerge in her collages of the 1930s and even later."[787] This denotes Agar's engagement with the natural world and science, described in the evolutionary link between humans and animals. This is reinforced by a diary entry from her time in Paris which states, "I must realize that I have to start from the very beginning. The earliest forms of Nature to a painter are studies in pure abstract design. I must go back to these forms and create design out of what the scientist tells us."[788] In addition to temporality, there is a deference to empiricism via references to evolution as well as capital-N Nature and scientists.

Agar enjoyed success as an artist early in her career, joining the London Group at Henry Moore's invitation in 1933.[789] However, her journey as a Surrealist began in 1936 when Roland Penrose and Herbert Read invited her to participate in the International Surrealist Exhibition in London at the New Burlington Galleries (Fig. 3.1), plunging her into the limelight. The *Daily Telegraph* described Agar as "the only London woman exhibiting… who besides painting curious diagrammatic pictures, often seen at the London Group, makes 'objects' from the kind of flotsam and jetsam that one usually associates with a dustbin… Broken glass, stones, seaweed, crinkled paper, scraps of fur, fish-hooks, and rusty chains are among the ingredients of this curious art form."[790] Her Wolverhampton *Express* review was similarly scathing.[791] Despite disparaging and dismissive comments regarding her use of materials – or "ingredients," suggesting the domestic task of cookery, negating her as a serious artist – and choice of subject matter, she remained undeterred. "Agar - an upper-class beauty whose participation in the Surrealist exhibition fascinated the press - deftly took advantage of the publicity she attracted in order to parody the preoccupation of the contemporary debutante and society hostess with furnishing, dress, and entertaining, and to provide a subversive reconfiguration of it."[792]

---

[786] Whitworth, "The Angel of Anarchy," 42.
[787] Agar, *A Look at My Life,* 84. Remy, *Dreaming Oneself Awake*, 23-24
[788] Remy, *Dreaming Oneself Awake*, 24.
[789] Agar, *A Look at My Life*, 102.
[790] *Daily Telegraph* June 11, 1936. (TGA 8712/8/1)
[791] Wolverhampton *Express* June 16, 1936. (TGA 8712/8/1)

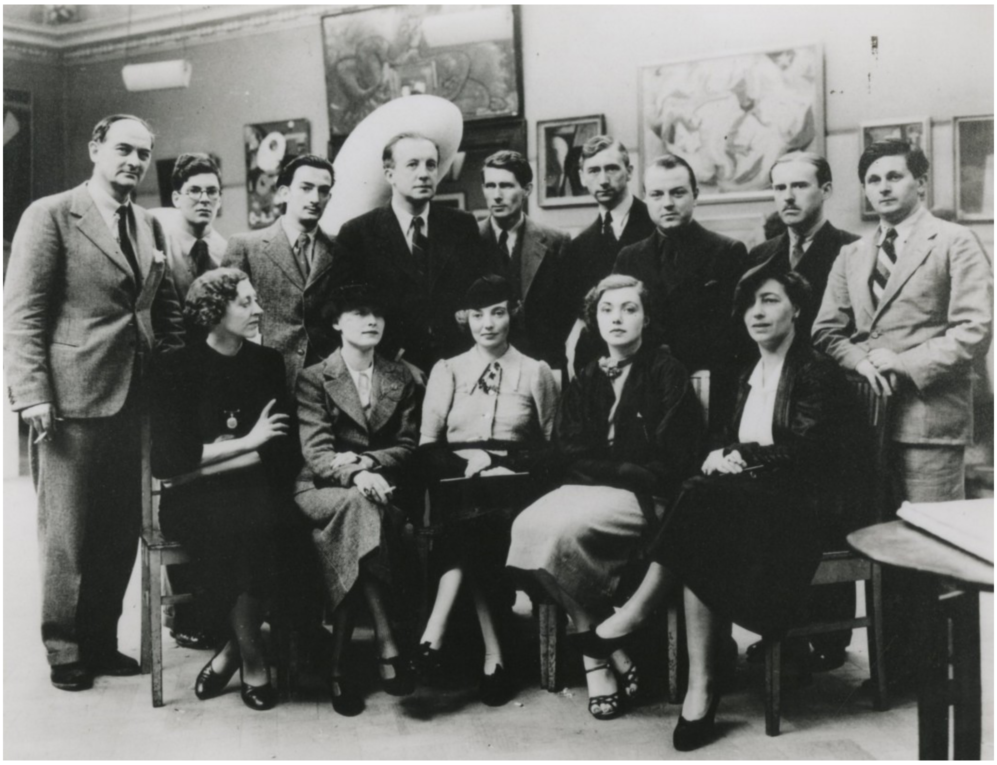


Fig. 3.1, Artists at the International Surrealist Exhibition at the New Burlington Galleries, London, 1936. Standing (left to right): Rupert Lee, Ruthven Todd, Salvador Dalí, Paul Éluard, Roland Penrose, Herbert Read, E.L.T. Mesens, George Reavey and Hugh Sykes Davies. Seated: Diana Brinton Lee, Nusch Éluard, Eileen Agar, Shelia Legge, and an unnamed "friend of Dalí."

Three paintings and five objects were selected to be displayed alongside works by some of the biggest names in avant-garde art. This opened doors for her both socially and professionally, establishing her as a British Surrealist. She later described her surprise when she was initially approached by the organizers for the International Surrealist Exhibition, recalling "when they came to the studio, Roland Penrose and Herbert Read, they said 'but you're a Surrealist!' And I said, 'Am I?' I hadn't any idea."[793]

---

[792] Louise Campbell, ""Eileen Agar at Home: Surrealism, domesticity and subversion," *Interiors* 3.3 (2012): 228.
[793] *Eileen Agar Interviewed by Cathy Courtney. NLSC: Artists' Lives.* Rec 18/04/1990.

Agar's work is unique in its extensive use of the marine within Surrealism. Relative to her counterparts, there has been little scholarship on her, and save for a handful of publications, most of them have been produced by two men who knew her at the end of her life, Andrew Lambirth and Michel Remy. Her autobiography, written with Lambirth, has been a useful resource, though – like Man Ray's lacunar memoir, *Self-Portrait* and Claire Goll's biased account favouring her husband – not without its faults. Rosemont described, "Agar wrote little, and her autobiography, published [in 1988] shortly before her death in 1991, is like most "as-told-to" books not wholly reliable. In the excerpts included here, however, Agar summarizes views she maintained consistently from her first encounter with organized Surrealism in 1936."[794] The book was written when she was 89 years old, with much hindsight and many inconsistencies in her recollections.

Other primary resources also date from this era, including the British Library's Artists' Lives oral history project and a master's dissertation from the Courtauld Institute of Art, containing passages from in-person interviews.[795] They are both valuable for their first-person accounts from Agar, despite the latter's casually racist descriptions of non-Western cultures. Remy, whose doctoral thesis was on British Surrealism, knew the artist from the late 1970s until her passing, and has been writing on Agar since. Lambirth had been close with the artist and has contributed to exhibition catalogues featuring Agar. Others such as Whitney Chadwick and Patricia Allmer have dedicated chapters to Agar in their works on women in Surrealism.[796]

Agar's relationship with materialist science – drawn from the natural world – is reflected in her work, and despite a reputation of only collecting bits and bobs from seaside holidays, a closer look reveals this facet. Juler discusses the trends in "New Biology" that influenced British sculpture at the time.[797] Omitting Agar, the book largely focuses on Moore, Barbara Hepworth and Richard Bedford, but is nevertheless useful in historicising and contextualising the place of British Modernists within a biological discourse. Agar knew many of these artists, not only from her studies but also from her professional circles with whom she exhibited like the London Group. Given their close-knit relationships at this time, it is likely that symbiotic ideas and inspiration flowed, including topics on scientific theories and discoveries.

---

[794] Rosemont, *Surrealist Women*, 91.

[795] Whitworth, "The Angel of Anarchy." *Eileen Agar Interviewed by Cathy Courtney. NLSC: Artists' Lives.*

[796] Chadwick, *Women Artists and the Surrealist Movement.* Allmer, *Angels of Anarchy.* Due to the pandemic, I was unfortunately unable to visit the summer 2020 Whitechapel Gallery exhibition *Eileen Agar: Angel of Anarchy*, which began shortly before the submission of this thesis.

[797] Juler, *Grown but Not Made.*

Agar's link to the marine and biological science is also visible from the books, objects and specimens she kept in her home and her studio. Her archives feature photographs of her home and studio, though mostly from the last decade or so of her life, with these items prominently displayed on the walls, tables and bookshelves. Only a few publications are in her archives, but it is indicative of an affinity with the natural world on a highly specialized level, especially *Urformen der Kunst*, discussed in the Introduction as well as the first chapter regarding Bataille's own work relating to Blossfeldt's images.[798] Inside Agar's copy there are pressed dried leaves, as well as a paper cut-out, and many pages are missing, suggesting collage work.[799] In the next section, I aim to reveal a few aspects concerning Agar's relationship to the natural world and the depth of her biological knowledge. This will be reflected in a discussion of select works she created as well as certain items she left to Tate Archives.

This section examines three elements of her œuvre: one sculpture, one collage and select archival materials. The discussion of the first object, a wearable sculpture titled *The Ceremonial Hat for Eating Bouillabaisse* (henceforth *Ceremonial Hat*), features an overview of its inherently biological nature relating to its evolution and its ability to expand and elevate vision. Additionally, as a fashion item referencing a French peasant soup, it turns gender roles on its head, challenging domesticity. The second work, *Marine Collage,* demonstrates how Agar was able to co-opt sea creatures' abilities by implanting them into humans' heads. The grafting of these benthic animals to the inside of human heads transfers their capacities to us as a means of sensorial expansion. Both *Ceremonial Hat* and *Marine Collage* are exemplary of Agar's blurring the human-animal boundary.

---

[798] TGA 922/7/1/10

[799] It is possible to find out which ones are missing and to presume that they were used in her artworks, since there is a table of contents that would pinpoint which pages were removed.

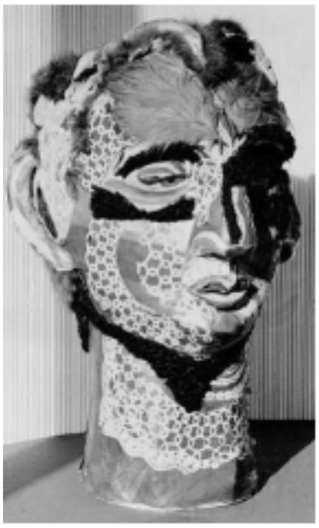
The third section addresses several pieces of important ephemera found within Agar's archives. This includes written notes and documents that discuss her extensive knowledge of scientific phenomena as well as concepts of ocular vision. Present also are small sculptural objects and a portion of educational anatomic glass plate slides, some of which she used to make collages. The inclusion of these slides of human bodies within Agar's œuvre, comprised mainly of works which employ undersea animal bodies, indicates that Agar was placing them all on the same structural level. This challenges anthropocentrism by the demolishing of hierarchies in Kingdom Animalia. Her archives give insight into the artist and her engagement with the natural world on a deeper level than by only looking at her artworks alone. Following analysis of these three elements, I aim to display the scope of Agar's Surrealist interwar work. Examining their history and context grants a better understanding of an artist typically either grouped into lists of women- or British-Surrealist-artists; completely overlooked altogether; or dismissed as a "playful" *bric-à-brac*-loving dilettante. She was a passionate, dedicated artist who was able to plumb the depths of her knowledge of the natural world to bring great marvels to the surface.

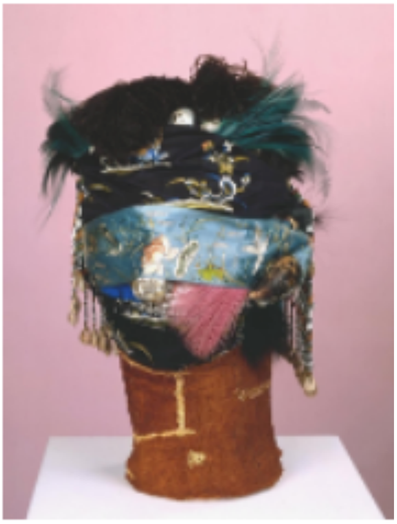
[*The Ceremonial Hat for Eating Bouillabaisse*]

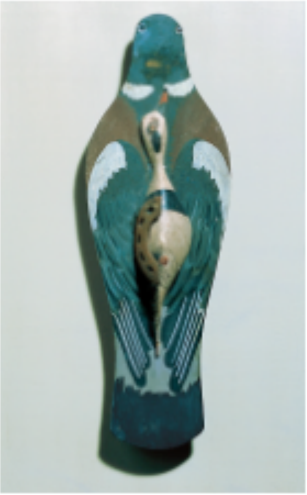
Ceremonial Hat – held in the Victoria and Albert Museum (henceforth V&A) – is one of the most iconic works in Agar's œuvre. This wearable sculpture is composed of a hat base with aquatic creatures and other nature-related ornaments adorning its top. During initial research on Agar and this object, it appeared as if there were several iterations from one image to the next. I assumed that this variation indicated that there were different objects. Agar had taken this iterative approach to other objects, such as *Angel of Anarchy*, made between 1934 and 1936. It disappeared in 1938, and the second *Angel of Anarchy* appeared sometime before 1940. (Figs. 3.2 & 3.3) She used the title *Wings of Augury* for two extant works in 1936, though visibly unrelated. (Figs. 3.4 & 3.5) According to small notes from her archive, Agar created lists of potential names to be used for future artworks, indicating a casual relationship with labels for her works.[800]

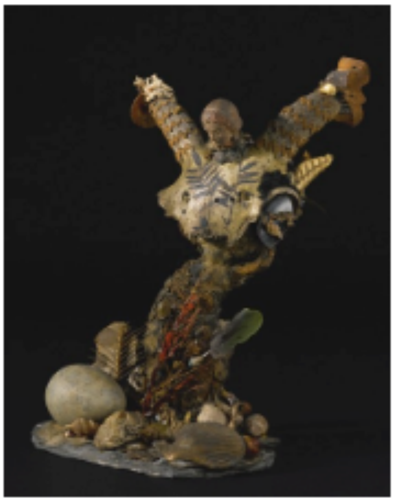
---

[800] Tate Archives TGA 9222/2/2/3/9.









(Top Left) Fig. 3.2, Eileen Agar, *Angel of Anarchy* (1st version), 1936, mixed media, Last seen at Galerie Robert, Amsterdam

(Top right) Fig. 3.3, Eileen Agar, *Angel of Anarchy* (2nd version), 1936-40, mixed media, 57 x 46 x 31.7 cm, Tate, London

(Bottom Left) Fig. 3.4, Eileen Agar, *Wings of Augury*, 1936, mixed media, 23 x 17 x 6 cm, The Berardo Collection, Lisbon

(Bottom right) Fig. 3.5, Eileen Agar, *Wings of Augury*, 1936, mixed media, 31.8 cm, Centre Georges Pompidou

Given the multiple works with the same moniker, these hats initially posed as a gastronomically inclined millinerial series. Agar made no mention of modifying *Ceremonial Hat*, nor were scholars noting its apparent variations, thus raising the question of there being more than one. Despite conflicting descriptions and images, it became clear that this misalignment was not from various hats, but rather it revealed a continuous evolutionary process from the mid-1930s until Agar's death. Looking again through this lens, they were all *Ceremonial Hat*. The images from 1936, 1948, 1991 and 1995 show the same artwork.

Though Einstein has just proven it as malleable, time here is the only constant. The hat remained the same, despite having gone through remarkable physical changes. As Krauss summarised, "sculpture is a medium peculiarly located at the juncture between stillness and motion, time arrested and time passing."[801] This tension, she says, is what gives it its power, which is allows it to remain itself and still change. It is a single moment over the span of many moments, which unite to form *Ceremonial Hat*'s perpetual evolution. Furthermore, Agar was known for modifying her surroundings. "Throughout the thirties my studio transformed itself, it seemed at the blink of an eye, one day suggesting Magritte, the next de Chirico […] I was collecting and storing […] surrounding myself with raw material which could be transmuted into paintings and objects […] the décor changed like sea-wrack cast up by the tide."[802] Campbell describes, "Agar employed a collage-like approach and the effect was improvised and ephemeral rather than immaculately crafted and luxurious. The interiors […] were thus gradually reconfigured by Agar in a way that provided an extension of her practice as a Surrealist."[803] Domestically and professionally, Agar embraced evolution as artistic methodology.

The hat's original conception consisted of a base made of a cork basket found in St Tropez.[804] She then inverted it, painted it blue and covered it "with fish net, a lobster's tail, a starfish and other marine objects."[805] However, according to the V&A's conservation report, the hat "is constructed on a cork bark base painted in blue and yellow and decorated with a large orange coloured plastic flower, a blue plastic star, assorted shells, two varieties of coral painted in green and pink, two star fish, twists of paper, a large glass bead, a piece of jigsaw puzzle, a piece of bark from a plane tree and a large fish bone."[806] These incongruous descriptions indicate a difference between the hat's first and final versions. In addition to the written descriptions, there are dated pictures allowing the observation the object's evolution over time. In

---

[801] Rosalind Krauss, *Passages in Modern Sculpture* (New York: Viking Press, 1977), 5
[802] Agar, *A Look at My Life*, 101.
[803] Campbell, "Eileen Agar at Home," 237, 238.
[804] Echoing the found and readymade elements of Agar's hat, we can also look at Baroness Elsa von Freytag-Loringhoven and her avant-garde fashion. See for example, Eliza Jane Reilly, "Elsa von Freytag-Loringhoven." *Woman's Art Journal* 18, no. 1 (1997): 26–33.
[805] Agar, *A Look at My Life*, 168. This description was noted at the time of her memoir, and it may have differed from the actual initial ornamentation.
[806] Marion Kite, "Ceremonial hat for eating Bouillabaisse. Eileen Agar 1936," *Conservation Journal* 14 (January 1995), accessed 21 September 2017, http://www.vam.ac.uk/content/journals/conservation-journal/issue-14/ceremonial-hat-for-eating-bouillabaisse-eileen-agar-1936/.

Figure 3.6 from circa 1936, the hat is shown soon after it was first made. It has considerable verticality, though it is difficult to determine the details due to the lack of image clarity. Neither lobster nor starfish are clearly distinguishable, only two shells.[807]

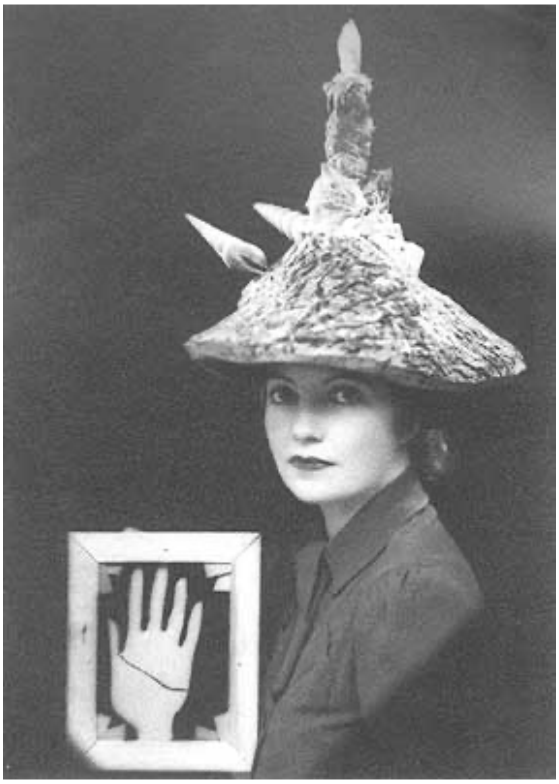


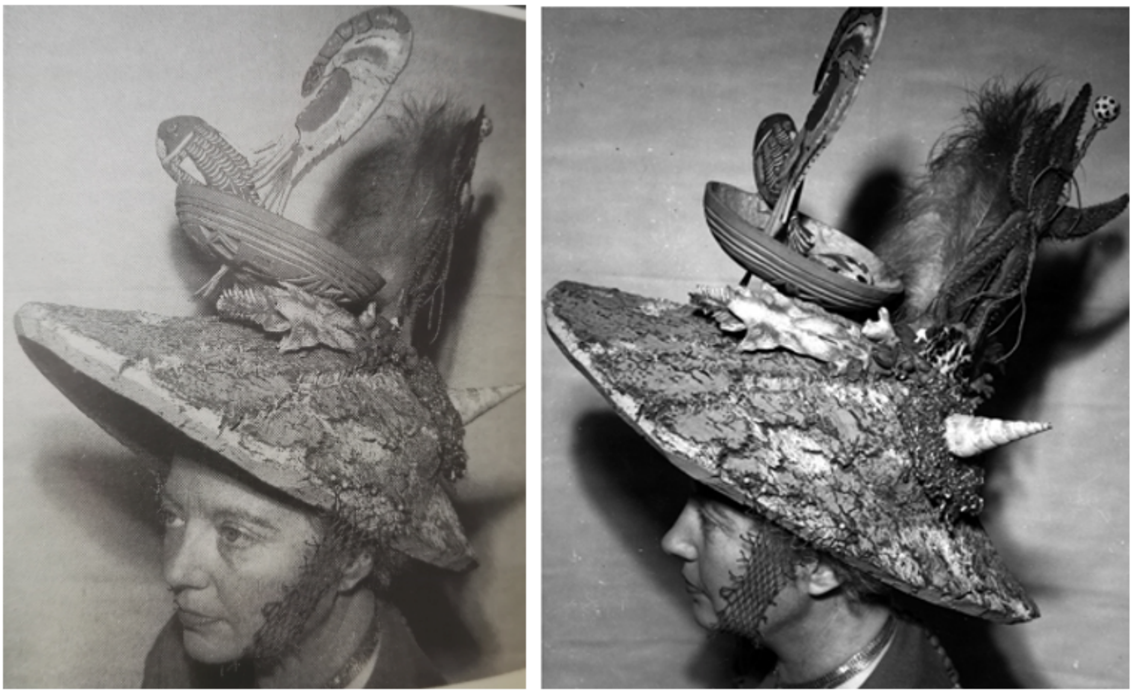
Fig. 3.6, Photograph of Eileen Agar wearing *The Ceremonial Hat for Eating Bouillabaisse*, c. 1936

In Figures 3.7 & 3.8, the images of the hat reveal more details. This twelve-year-old version sports a chin strap made of fishing net and features bird feathers, a starfish, seashells and a carved basket carrying a wooden fish and lobster. Agar was featured on-screen several times in 1948. She appeared on television on August 16 with fellow British Surrealist Ithell Colquhoun (1906-1988) and made an assemblage named *Phantom of the Sea* while discussing her work. At the end, the host compared her practice to that of a scientist.[808] She appeared in October on a program hosted by fashion historian and keeper at the V&A, James Laver, where she attempted to create a new hat live on air but ended up featuring *Ceremonial Hat* instead due to a lack of adequate materials.[809] Another instance was for a British Pathé news reel program, *New Pictorials* that aired on December 27 where Agar strutted down a high street in her hat, catching people's eyes and turning heads. The narrator describes it as "eighteen inches high and eighteen inches wide, with lobster, tiger fish, a prawn, seashells, marine flowers and a starfish."[810] It also has tall feathers, an egg, silk foliage and a dart inserted into the end of a seashell. The pictures from October show that same shell, with no dart, indicating it had been added between October and December 1948, narrowing the hat's evolution to a span of just a few weeks.

---

[807] Perhaps a dried sea sponge or other tubular-shaped sea creature capable of adding gravity-defying height.

[808] Agar, *A Look at My Life*, 168. The host was Halam Fordham, the producer was Anthony Pugh and it aired at 9:20. “PROGRAMME INDEX - RADIO TIMES ISSUE EXPLORER, Issue 1296, Television, 15th Aug 1948 - 21st Aug 1948” BBC, accessed 2 July 2021, https://genome.ch.bbc.co.uk/page/a0b3b86eee1c48a595d08a9b6f14a8b2?page=26; “Typescript for the Television Programme ‘Eye of the Artist’ titled ‘Fantastic Art’,” Tate Archives TGA 929/6/3/2.



Figs. 3.7 & 3.8, Photographs of Eileen Agar wearing *The Ceremonial Hat for Eating Bouillabaisse*, October 1948

The picture of *Ceremonial Hat*, seen for the first time in a 1991 colour photograph (Fig. 3.9), displays its technicolor details, though its plane having shifted from vertical to horizontal, which I see as a way of disengaging from Bataille's *bassesse*. This also suggests that Agar had become less daring with this version, and as she progressed in her career, felt less of a need to stand out.

---

[809] Agar, *A Look at My Life*, 168. The BBC's records indicate one television programme with James Laver occurred in October 1948, which was on the 8th of that month at 21:30 and titled "On Your Head," which was all about hats and the hat-themed programme is also related in Agar's memoir. However, there is no mention of Agar on BBC's record. "Broadcast - BBC Programme Index," (Laver Programme) BBC, accessed 2 July 2021, https://genome.ch.bbc.co.uk/895666e11b144ee9a077c1f9312bb564; Simpson, "Chronology," in *Eileen Agar 1899-1991*, 90. Also confirms the theme of the Laver programme on 'Hats.'

[810] "Ceremonial Hat – British Pathé," British Pathé, accessed June 2, 2018, http://www.britishpathe.com/video/ceremonial-hat/query/126304

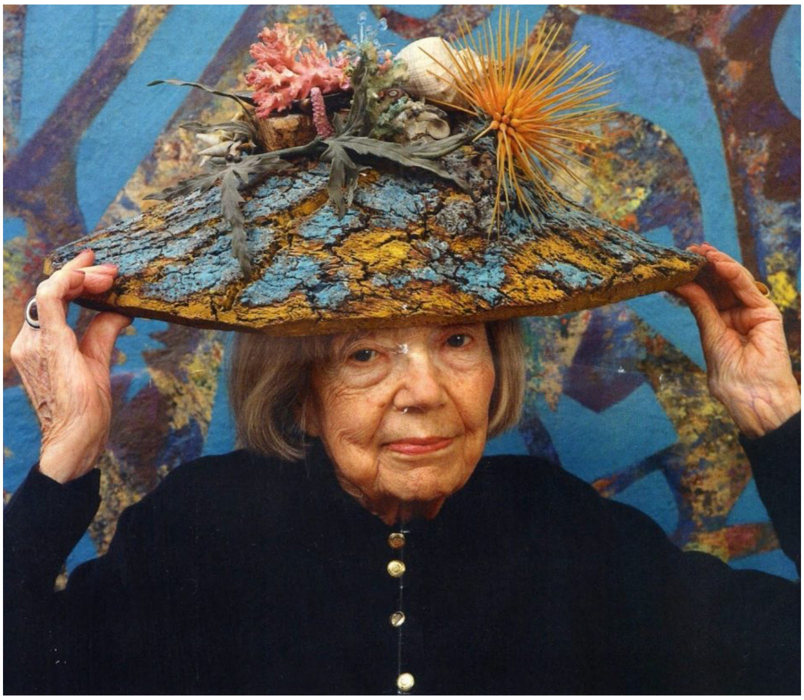


Fig. 3.9, Photograph by Richard Dudley-Smith of Eileen Agar wearing *The Ceremonial Hat for Eating Bouillabaisse*, for *World of Interiors*, September 1991

After forty-three years, the feathers, chin strap, lobster, fish, basket, egg and the shell-dart have since been removed. Agar had completely overhauled the hat. The ornamentation's arrangement on this version shows more control, with more purposeful grouping. She did not add and replace piecemeal, but rather did everything at once. Figure 3.10 shows the V&A's catalogue image. This final version looks similar to the previous image, with slight changes such as the addition of plane tree bark and fishbone as vertical elements.

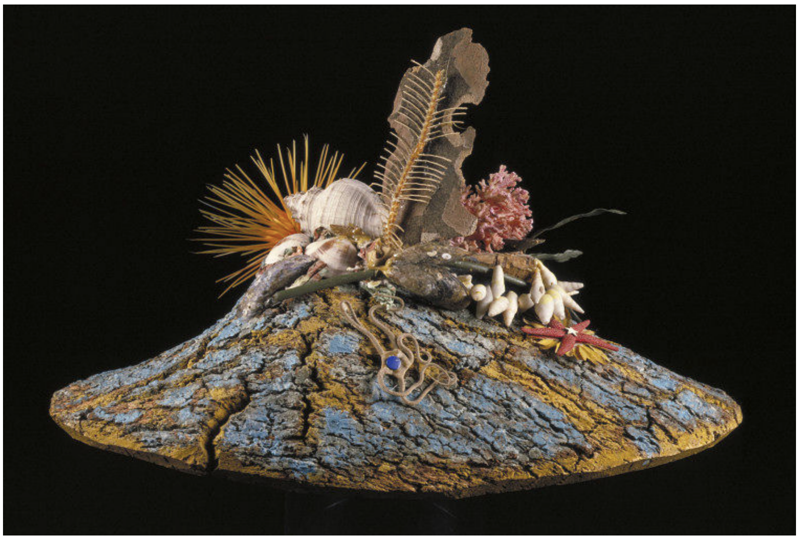


Fig. 3.10, Eileen Agar, *The Ceremonial Hat for Eating Bouillabaisse*, 1993, mixed media, 33 x 49 x 23 cm, Victoria and Albert Museum, London

It is now evident that there was no series of hats, but rather one which evolved over time with Agar's Darwinian hand passing over it as she saw fit. Additionally, the hat's provenance traces directly from the artist to her niece after Agar's death in late 1991.[811] The museum received the work in 1993, which occurred soon after Agar's passing, leaving minimal time between the artist's studio and the V&A's reserves. Interestingly, there is "evidence of adhesive deposits at several places on the hat suggesting that other elements may have been present at some time and that possibly alterations had been made to the original configuration of the decorative elements."[812] This indicates that objects were either removed or lost, explaining the changes in appearance of the sculptural hat dedicated to a French seafood soup.

Agar's *Ceremonial Hat* was also a sartorial statement, a gentle parody of high-society women's fashion with Surrealist flare. This connection to couture connects to her mother, and as Agar fondly recalls, "her hats were myriad. In fact, she would not dream of going to stay at the seaside without some forty hats. And what hats! Enormous constructions of straw, velvet or fur like frigates under sail or birds on the wing, embellished with vast bows, ribbons or ostrich feathers."[813] Agar took inspiration from her stylish mother's hats and added her own Surreal twist to them. As Stent confirms, "The materiality of clothing, serving as an adornment of the body, made Surrealist art into physical, visual fashion, and fashion allowed for the creation of functional pieces out of unusual or ordinarily irrelevant objects."[814] Disassembled, the hat would be nothing more than a pile of debris. It is Agar's touch which created and recreated this work each time it evolved.

---

[811] Kite, "Ceremonial hat for eating Bouillabaisse."
[812] Kite.
[813] Agar, *A Look at My Life*, 19.

The hat's evolution, from its conception in the mid 1930s until the early 1990s, is a fascinating example of Agar's artistic process. Though transformed and modified through the years, taking on at least five different permutations, it was unchangingly the one and only *Ceremonial Hat*. The yellow and blue base remained the same, but what was atop changed dramatically over the years, with different marine fauna making appearances and rotating out like waves bringing in new creatures with the tide and taking the old ones back into the surf. Oftentimes the hat had great height, giving the hat the appearance of a periscope. The lofty quality of the hat is significant. Not only because hats are inherently elevated, atop the head, but also because the added verticality allowed for the creatures to access a vantage point above the wearer. Each adorning creature was given this opportunity in waves over the span of over a half century, this exclusive vision unavailable to their undersea-dwelling brethren. What did they observe and how could their aerial perspective help humans go beyond the naturally accorded sensorial capacities to expand into unknown realms? How could this have been transferred to the wearer and been of use? This adaptation provided augmented sensorial capacities to the creatures who then could transfer this perception to the wearer, as if a periscope to see over the top of a deep ocean trench. I argue that the united sensory capacities of these animals adorning Agar's hat-sculpture embody a sort of group of soldiers stationed at an information centre, allowing the wearer to have even more means to capture and feel their surroundings.[815]

Metaphorically, Agar took a bowl of peasant seafood stew and turned it over to wear on her head, challenging imposed domestic roles. The news reel in which she paraded down the high street with a soup bowl on her head announces the rebellion, as she removed herself from private domestic space and inserted herself into the public sphere. Agar's independence and background gave her the confidence to avail herself of polite society's opinion, and she was often amused by shocked reactions to her work. Instead, she made a statement by flipping this hat adorned with the makings of a fish soup atop her head, using humour to subvert domesticity while also commenting on class. This frugal, recipe-less soup originating from the wives of *marseillais* fishermen was intended to avoid wasting unsold fish and shellfish from the day's catch, "thus wearing what one eats, and eating what one wears."[816] The inversion of its serving bowl shows the blithely defiant side of Agar that shines through her work. She inverted soup bowls while inverting traditional female roles.

---

[814] Sabina Stent, "Women Surrealists: Sexuality, Fetish, Femininity and Female Surrealism" (PhD diss., University of Birmingham, 2011), 104.

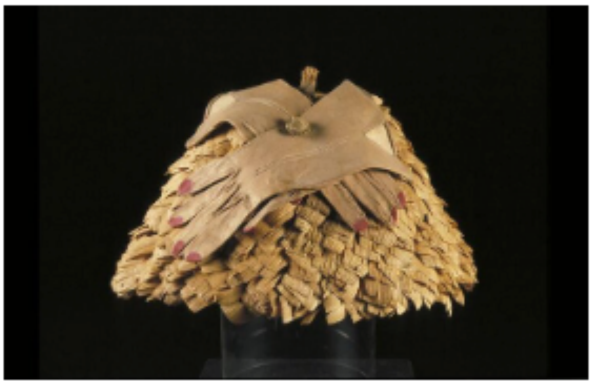
[815] Christina Heflin, "*The Ceremonial Hat for Eating Bouillabaisse* d'Eileen Agar et les modes sensoriels," *Horsd'œuvre* nº 48: Ressentir les mondes (Winter 2021-2022).

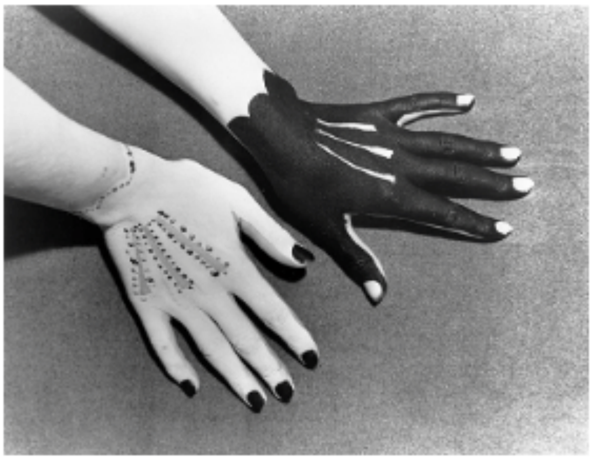
Agar described it as "a sort of Arcimboldo headgear for the fashion conscious," and how it "received a lot of rather startled publicity."[817] This reference to the sixteenth-century painter connects to what Jay implies on narrativization within art in that century and its predecessor in that the overloading of signs in an artwork creates an entire referential network of allusions and symbolic meanings.[818] In the case of the hat, this points to the challenging of female domesticity, defiance of traditional women's fashion and deanthropocentrism. *Ceremonial Hat* always consisted of an inverted vessel decorated with natural and artificial flotsam and jetsam; it is meant to be worn on the head. Agar took it – with elements found on hats worn by women like her own mother – and continued to add on until the point of absurdity.

Agar's affinity for fashionable headgear is not limited to *Ceremonial Hat*. She sported a Schiaparelli hat for the opening of the International Surrealist Exhibition in 1936. The *Mad Cap* hat was a snug, pointed black cap that could be styled in many ways, allowing the hat to metamorphize, or evolve, as the wearer saw fit.[819] The Agar-Schiaparelli connection continued beyond this and was exemplified in *Glove Hat*, consisting of Schiaparelli gloves affixed to a conical straw hat.[820] (Fig. 3.11) Inherently Surrealist in nature, they are tancoloured – resembling white skin – with the tips painted red, as if the gloves' fingernails were lacquered, allowing wearers to "put on a pair of readymade hands." Agar wore the hat to the opening of her exhibition at the London Gallery in November 1937, "Surrealist Objects and Poems."[821]

---

[816] Michel Remy, *Surrealism in Britain* (Aldershot: Ashgate, 1999), 355n25.
[817] Agar, *A Look at My Life,* 168. Arcimboldo had been exhibited with Agar at "Fantastic Art, Dada, Surrealism" in 1936 at the Museum of Modern Art in New York. "Fantastic Art, Dada, Surrealism," Exhibition catalogue.
[818] Jay, *Downcast Eyes*, 51.
[819] Campbell, "Eileen Agar at Home," 239. The Mad Cap hat was featured in a 1933 Man Ray photograph accompanying Tzara's essay "Un Certain autotisme du goût" published in *Minotaure* nos. 3-4 in 1933, 83. The model bears a striking resemblance to Agar.
[820] Agar, *A Look at My Life*, 178. The catalogue entry for this simple two-part, three-dimensional collaborative assemblage mentions that the gloves were part of Schiaparelli's 1936 collection and that the hat's "Reason for Production" was "Exhibition." I have doubts about this categorisation, given its presence on her head in a photograph and mention of it doubling as a lamp shade in a September 1991 article. However, this article also states that the hat base is from Tenerife, a location she does not claim to have visited in her autobiography until winter





(Left) Fig. 3.11, Eileen Agar (and Elsa Schiaparelli) *Glove Hat*, 1936, straw and leather, 25.5 x 33 x 33.5 cm, Victoria and Albert Museum, London
(Right) Fig. 3.12, Man Ray, *Untitled*, c. 1935, Private collection, Paris

According to Maison Schiaparelli, these gloves as well as another pair in black, were inspired by a photograph taken by Man Ray of painted hands made to look like gloves, executed by Picasso, recalling earlier discussions of prosthetics, severed hands from *Un Chien andalou* as well as the starfish. "[Schiaparelli] created these famous black gloves with nails in red python. She then expanded this idea with gloves with golden claws, rings on the fingers, or with gathers forming trompe-l'oeil scars."[822] (Fig. 3.12) Though the connection with Dalí is missing here, they mention that they were made for the same collection as the *Bureau-Drawer Suit*, which was part of a collaboration with Dalí in 1936 (Fig. 3.13).[823]

1952-1953, casting doubts about accuracy here as well since it had been worn in 1937. Howell, "A-Head of Her Time," *World of Interiors* (September 1991): 87. "Glove Hat | Agar, Eileen Forrester." accessed 25 November 2020. http://collections.vam.ac.uk/item/O133580/glove-hat-hat-with-gloves-agar-eileen-forrester/.

[821] Ann Simpson, "Eileen Agar: The Spirit of Play," in *Eileen Agar, 1899-1991*, ed. Ann Simpson (Edinburgh: National Galleries of Scotland, 1999), Scottish National Gallery of Modern Art, Exhibition catalogue, 24.

[822] "Maison Schiaparelli – Schiaparelli & the artists – Pablo Picasso - Hands painted in trompe-l'œil imitating gloves," Maison Schiaparelli, accessed November 26, 2020, https://www.schiaparelli.com/en/21-place-vendome/schiaparelli-and-the-artists/pablo-picasso/hands-painted-in-trompe-l-oeil-imitating-gloves/.

[823] "Maison Schiaparelli – Schiaparelli & the artists – Salvador Dalí – Schiaparelli Bureau-Drawer Suit," Maison Schiaparelli, accessed June 29, 2021, https://www.schiaparelli.com/en/21-place-vendome/schiaparelli-and-the-artists/gallery/80.

Agar, the Surrealist, essentially took a Surrealist-inspired high fashion accessory, paired it with a peasant's straw hat and metamorphosed it into a meta-Surrealist object rich with meaning. Here Agar elevated the sense of touch. By taking a pair of gloves which closely resembled hands, with *trompe l'œil* nails – deceiving the eye and evoking the danger of the fingernails' ability to blind or scratch the cornea – and putting them atop a hat, Agar elevated tactility above vision, spatially and hierarchically. This juxtaposed union of two unrelated objects is indicative of the Surreal nature of Agar's work; this time, it carries an additional meaning due to the opulent nature of the gloves from a major fashion house. Agar is again mocking high society, this time by wearing fancy gloves on her head while tipping her straw hat to Surrealism.

(Left) Fig. 3.13, Elsa Schiaparelli and Salvador Dali, Schiaparelli bureau-drawer suit, photograph by Cecil Beaton, for *Vogue*, September 1936
(Right) Fig. 3.14, Lord Snowdon, *Eileen Agar Modelling Clothes by Issey Miyake*, 1986

Haute couture was a way for Agar to distinguish herself and other women Surrealists from other female artists. Agar was purposeful in her sartorial choices and did not want to be dismissed as a messy painteress, nor did she want to be a mannequin. "The juxtaposition by us of a Schiaparelli dress with outrageous behaviour or conversation was simply carrying the beliefs of Surrealism into public existence."[824] This conscious contradiction of what was seen and what was heard was a way of confidently asserting her Surrealist standing by behaving outside of the parameters of the upper class. She continued with her affinity for couture throughout her life, and was photographed by Lord Snowdon for Issey Miyake fifty years later. (Fig. 3.14) Her clothing and hats were an important component of her artistic expression alongside the collages, paintings, photographs and sculptures she created which almost all served to subvert hierarchies. When wearing her works like *Ceremonial Hat*, she became empowered by the capacities of that which adorned her head. It was the conduit through which the human-animal boundary was able to be breached each time she wore it.

Ceremonial Hat was an evanescent yet permanent object. Agar admitted that some of her works were not meant for posterity, "the Surrealists made objects out of whatever turned up, believing that they came at the behest of chance and went that way also. Objects were ephemeral, sometimes even made to be destroyed. A lot of objects I have made in the course of my life have disappeared like that."[825] This links to the concepts of objects in a series and iterative creativity mentioned above. There is an element of organic/natural growth to be found in the iterative nature of creativity. It is evolution. Each generation is slightly changed, improved. A risk can be taken as the previous version fades away. Agar's ability to truly let nature take its course shows a remarkable detachment; this trust in the process allowed her to fully focus on creating, letting nature use her as a medium.

The creation and the subsequent versions of *Ceremonial Hat* demonstrate Agar's engagement the marine. This work was the product of myriad beachcombing expeditions along the coasts of the Mediterranean, the Atlantic Ocean, the North Sea and other places she frequented with friends and loved ones throughout her life. *Ceremonial Hat* underwent restoration treatment in 1994 at the V&A, shortly after its accession.[826] The inherently technical quality of conservation work is an apt discussion point for considering the meeting of art and science in Agar's artwork. This next section highlights the hat's inherently scientific nature, from its restoration and identification of the species adorning the final version to my own in-person assessment. These elements form a few additional conclusions about the work.

---

[824] Agar, *A Look at My Life*, 120.
[825] Agar, 141.
[826] Kite, "Ceremonial hat for eating Bouillabaisse."

The conservator studied the materials and accounted for its composite parts, noting the hat's condition and underlining fragilities. Small amounts of yellow and blue paint from the base were taken for microscopic and energy dispersive x-ray fluorescence spectroscopic analysis for pigment analysis; chrome yellow was identified, but the blue could not be confirmed. Kite speculated that the high levels of chlorine found in both pigments point to the cork base having been in the sea and saturated with sea salt as a reason. I argue that if the basket was sold at a seaside stand, an accumulation of evaporated sea spray is an equally plausible explanation for the hat's high concentrations of chlorine. The synthetic materials were analysed using Fourier transform infra-red spectroscopy, which identified the orange flower to be made of PVC and the blue star to be made of a polymer that was not commercially available until the 1950s, confirming that it was a later, post-war addition.[827]

The report lists the different species of marine animals found on Agar's hat. Liaising with the department of invertebrates at the Natural History Museum, Kite was able to identify most of the creatures. The report included their scientific names as well as their common names, specifying native habitat, which indicates Agar's movements and how the hat was constructed. They include *Mytilus edulis* (edible mussel), *Neptunea despecta* (Neptune's whelk), *Callista cf chione* (smooth callista), *Cerithium vulgatum* (common cerith), *Solea solea* (Dover sole), *Venerupis pullastra* (carpet shell), *Asterias sp.* (red starfish), and *Ophioderma sp.* (brittle star).[828]

The curatorial team at the V&A's Clothworkers' Centre kindly granted me an in-person viewing of the hat. (Fig. 3.15) The hat was precisely as described by Kite, but a first-person observation provided me incomparable depth of understanding of the sculpture and its biome. It allowed for observation of aspects imperceptible in the photographs, including its configuration and a tentacle-shaped piece of coral like an octopus reaching over a mussel shell. As Endt states, some members of the Surrealist group were drawn to coral "because of its boundary-transgressing qualities on the one hand and its associations with metamorphosis and creativity on the other."[829] This aligns well with Agar's work both here and as seen elsewhere in this chapter. Furthermore, upon seeing the orange flower in person its likeness to a sea urchin was strengthened, and other important details revealed themselves such as a piece of cork supporting the pink coral like a pontoon, a smaller whelk with barnacle-like shell fragments affixed to it and a walnut-sized bead hiding behind the coral, with its white oculus like a cycloptic creature peeking from a reef ecosystem.

---

[827] According to Kite, PVC was produced as early as 1927. Kite, "Ceremonial hat for eating Bouillabaisse."

[828] Both the cork and the bark were identified as well, with the bark being from a species of plane tree which tolerates neither hot nor cold temperatures, so it is likely not to have come from the Mediterranean region. Kite, "Ceremonial hat for eating Bouillabaisse."

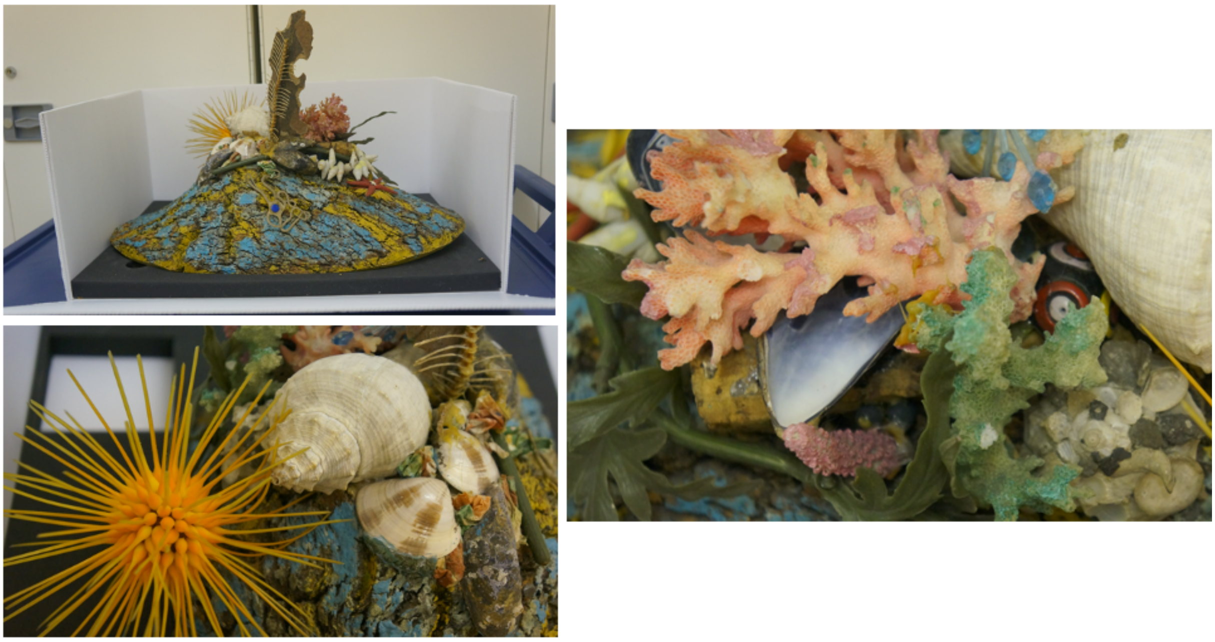


Fig. 3.15, Pictures from in-person viewing of Eileen Agar's *Ceremonial Hat for Eating Bouillabaisse*, Victoria and Albert Museum, Clothworkers' Centre, July 5, 2018

Elements and details were revealed, allowing for the understanding of Agar's technique and process in this final design. I observed the paint layers as they had been applied and retouched. Agar did not mention the addition of yellow, but the yellow and blue base is visible once the hat begins appearing in colour photographs. Nevertheless, the blue paint on this version was visibly above the yellow paint, stretching in some areas to above the glue lines and there is paint on some of the shells.

---

[829] Marion Endt, "Introductory Essay," *Coral Something Rich and Strange* (Liverpool: Liverpool University Press, 2013), 17.

Seeing the actual shape of the hat, which appeared as circular in some photographs, and in others narrow and oblong was immensely helpful. The hat is oval-shaped – much like a limpet – and was photographed from different angles, explaining the inconsistent appearance. The in-person observation was the last research element necessary to remove any lingering doubt regarding the possibility of a hat series.

In addition to the metaphoric vision accorded to these elevated sea creatures, it is important to highlight the marine biology inherent to the work and some of these creatures' own capacities of perception to understand how Agar and her *Ceremonial Hat* expanded vision and accorded these animals' means of perception to humans. Comprehension of their sensory modes allows for them to be extended back to the wearer. Considering their abilities individually and collectively demonstrates new ways in blurring the human-animal boundary and gives more insight into their non-cephalic retinality. This next section will examine these physiological and marine biological aspects to explore the ways in which humans can expand perception via these animals' capacities.

Though it is unclear when the hat started to feature starfish, with the only interwar photo lacking detail, the final version at the V&A features a brittle star. Belonging to the phylum Echinodermata, and also known as an ophiuroid, it has flexible arms used for locomotion and is closely related to the starfish. Its sensorial capacities are discussed here below:

> In light-sensitive ophiuroids, presumed photoreceptors are buried in the dermis at the aboral surface of the body and are positioned at the focal points of calcitic mounds that have been called "microlenses," which form the outer surface of the plates of the dorsal arm endoskeleton. The ability of these calcareous ossicles to polarize and focus light has been proposed experimentally, it having been suggested that the entire light-sensitive surface of the body functions as a compound eye (Hendler and Byrne, 1987; Byrne, 1994; Aizenberg et al., 2001). [830]

This echinoid – whose entire body functions retinally – serves as a sentinel atop the hat, allowing for its own non-cephalic ocularity to be employed by the wearer. Given this research on ophiuroids had been partially carried out around the time of Agar's last modification of the, plus her interest in popular science, she may have known of the photoreceptors' function in the brittle star.

---

[830] Giribet, *Invertebrate Tree of Life*, 127.

Agar's *Ceremonial Hat* has featured many species belonging to the phylum Mollusca, defined as "usually wholly or partly enclosed in a calcium carbonate shell secreted by a soft mantle covering the body;" they include limpets, snails, clams, mussels, scallops, cockles as well as nautiluses, squids and octopuses.[831] Their modes of sensing are accorded to the wearer of the hat, who – by elevating the creatures to a higher vantage point – create a fusion of capacities in a symbolically *symbiotically* beneficial relationship.[832] The evolutionary path of these creatures recalls the hat's own evolution; when considering the animals atop them there are similarities that can be drawn between the marine fauna used by Agar and their sensorial abilities.

> Bivalves have a diversity of sensory organs … including tentacles and eyespots. Photoreceptors and eyes of different types have evolved multiple times in the headless bivalve, including compound eyes in ark clams and mirror optics in the many eyes along the mantle edge in scallops. Several other epidermal structures and receptor types are present in molluscs, including, for example, the adoral sense organs of protobranch bivalves.[833]

Moreover, the presence of different species on the hat, with both cephalic and non-cephalic eyes, connects humans to additional modes of perception, reinforcing the brittle star's position as sentry. Note that the headless bivalve, also known as the *acéphale*, has compound eyes.

> Mollusc sense organs are numerous and include a diversity of sensory tentacles, statocysts, photoreceptors (including complex eyes), and unique organs called "osphradia." Many gastropods have cephalic tentacles that may bear eyes, but many other types of cephalic, epipodial, and mantle tentacles can be found within Gastropoda. Gastropod eyes range from pigment pits (as in limpets) to pinhole eyes (as in abalone) or, in many lineages (e.g., periwinkles), image-forming lensed eyes. | Osphradia are patches of sensory epithelium, a chemosensory organ located on or near the gills or on the mantle wall.[834]

Ceremonial Hat features many of these creatures, and over the years they have been accorded an elevated position by the hat while bestowing their diverse abilities upon its wearer in return, with sensory tentacles, photoreceptors as well as both simple and complex eyes, functionally transforming the millinerial sculpture into a synaesthetic periscope.

---

[831] Salvini-Plawen, L. "Mollusk." *Encyclopaedia Britannica*, accessed March 16, 2021. https://www.britannica.com/animal/mollusk.

[832] A discussion of cultures which use their own ritualistic objects, clothing and accessories to embody the powers of animals would be an interesting addition to the discussion, but this anthropological aspect will have to be covered later.

[833] Giribet, *Invertebrate Tree of Life,* 378.

[834] Giribet, 377.

Another phylum present is Cnidaria, comprised of corals, jellyfish, Portuguese men-of-war and sea anemones. Given "only cnidarians manufacture microscopic intracellular stinging capsules, known as nematocysts or cnidae," and accounting for the version with the chin strap, the hat metamorphizes into a protective helmet.[835] Though current research indicates that there is still much unknown about many members of this phylum, the abilities of these creatures to protect as well as deliver painful barbs recalls the barbed wire from the battlefield.

> Cnidarians are predators […], being able to paralyze their prey with an arsenal of neurotoxins delivered via a unique type of stinging cells called "cnidocytes" … The discharge mechanism of cnidocytes has remained a mystery for centuries, but recent research has shown that light may trigger the discharge, thus proposing a nonvisual function for opsinmediated phototransduction.[836]

To understand the relevance of "opsinmediated phototransduction," looking at the terms individually aids in grasping the relevant aspects in this recent discovery. "Opsins are the universal photoreceptor molecules of all visual systems in the animal kingdom."[837] Phototransduction is "the conversion of a light signal received by a nervous receptor to an electrical signal transmitted to the brain."[838] Though impossible that Agar could have been aware of this, it demonstrates the coral's non-retinal sensory mode that allows for its own form of vision. Its privileged position atop the hat gives these photoreceptors a much better vantage point, increasing its protective capacities to better employ its cnidocytes.

The symbolic meaning of Agar's protective headgear with its own defence mechanism brings women to the frontlines. This equipment accorded her extra-sensorial abilities, not unlike the technologies developed and refined during World War I. Given Agar's affinity for the marine as well as the biological sciences, she knew of the overall perceptive capacities differing from those belonging to humans, which points to the artist successfully challenging ocularcentrism as well as anthropocentrism. The sensorial abilities of the marine animals adorning the hat are embodied by its wearer. As Agar confirms her affinity for the continuously evolving, "no shape can be regarded as final."[839] By employing these creatures and giving them an elevated perspective to blur the human-animal boundary, *Ceremonial Hat* forges its own evolutionary path to demonstrate a human-marine fusion.

---

[835] "Cnidarian," *Britannica Academic*, accessed June 22, 2021, https://academic-eb-com.ezproxy01.rhul.ac.uk/levels/collegiate/article/cnidarian/110240.
[836] Giribet, *Invertebrate Tree of Life,* 55.
[837] Shichida Yoshinori and Matsuyama Take, "Evolution of opsins and phototransduction," *Philosophical Transactions of the Royal Society B* 364, Issue 1531 (October 12, 2009): 2881.
[838] "phototransduction," *Merriam-Webster.com Medical Dictionary*, accessed January 13, 2021, https://www.merriam-webster.com/medical/phototransduction.
[839] Whitworth, "The Angel of Anarchy*,*" 40.

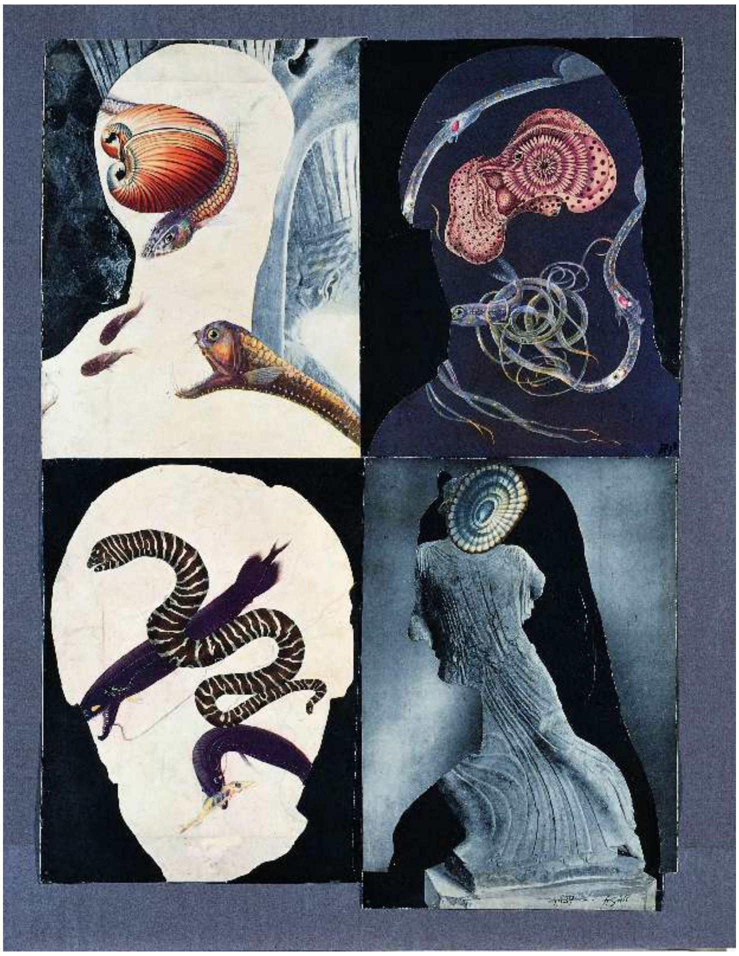
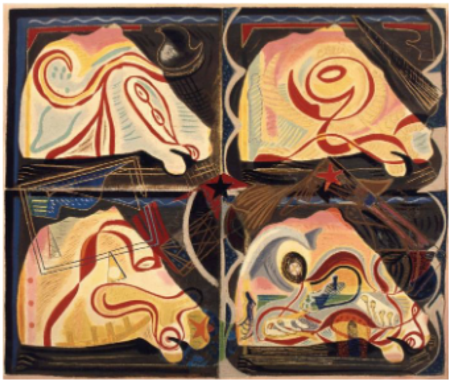
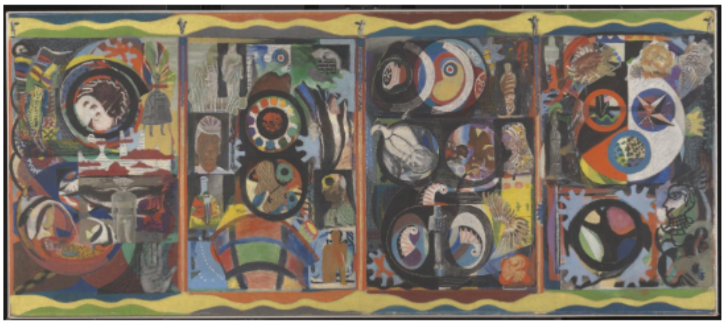


Fig. 3.16, Eileen Agar, *Marine Collage*, 1939, collage on paper, 58 x 41 cm, The Vera and Arturo Schwarz Collection of Dada and Surrealist Art, Israel Museum, Jerusalem

[Marine Collage]

The next work within this study of Agar is *Marine Collage* (Fig. 3.16), a two-dimensional work comprised of four sections of differently positioned female silhouettes. The strata of collaged layers, for each quadrant, have a ground piece that serves as the background, a layer atop that that serves as the silhouetted image, and then there are elements added atop that layer. What unites them is the negative space's contents in the silhouettes: images of sea creatures from the most profound depths of the sea. "*Marine Collage* is based on the same principle as *Quadriga* and *The Autobiography of an Embryo*; that is, the deconstruction of the eye by making its visual process plural, multilayered and impossible to arrest."[840] (Figs. 3.17 & 3.18) Remy underlines the eye's constant motion when viewing, bouncing from one detail to another, ricocheting and crisscrossing restlessly across the quadrants. Here, *Marine Collage* will be methodically dissected to decipher the layers of meaning imbued by Agar. From the top left corner moving clockwise, there will be an exploration of the origin of the elements used to create this rich, complex work as a basis for an examination of the dialogue between the quadrants. This will account for the whole collage and its relation to this thesis' four pillars of inquiry.





(Left) Fig. 3.17, Eileen Agar, *Quadriga,* 1935, oil on canvas, 51 x 61 cm, Penrose Collection, Farleys House & Gallery, East Sussex
(Right) Fig. 3.18, Eileen Agar, *The Autobiography of an Embryo*, 1933-34, oil paint on board, 91.4 x 213 cm, Tate, London

In the top left section, there is a layer with a drawing cut into the shape of a silhouette of a bust facing away at an angle. Inside is a painting of two specimens of Dragonfish. They were made during the Bermuda expedition by the Department of Tropical Research of the New York Zoological Society (now the Wildlife Conservation Society, henceforth WCS).[841] (Fig. 3.19) This painting, as well as others used in this collage, appeared as part of a supplement accompanying the article "The Depths of the Sea: Strange Life Forms a Mile Below the Surface," by underwater explorer and head of expedition, William Beebe, discussed in the previous chapter. The plate series, titled "Fantastic Sea Life from Abyssal Depths," consisted of eight images of marine fauna painted by the artist Else Bostelmann, who worked with Beebe in Bermuda. The oceanographer, who compared the ocean's abyss to a "no-man's-place," used a bathysphere – the first ever – to plunge to the bottom of the Atlantic and then report back with quick sketches and written descriptions, similar to Ransonnet-Villez's methodology, but at greater depths.[842] Beebe vividly described the sensorial effects of being a mile under the ocean's surface: the silence was profound, the darkness was like nothing he had ever seen on land and the extreme cold and pressure were "all-encompassing."[843] He divided the deep-sea fish, shrimp and squid he observed into a dichotomy of dominant modes of perception. On one side there are the "*Feelers*" which rely on tactility and where "the eyes become reduced and dimmed, the optic nerve shrivels, and finally the entire eye may be absorbed or sunk quite beneath the surface."[844] On the other side, there are the "*Peerers*" or "*Lantern Bearers*," which use sight and "illumination from their own bodies" for both feeding and mating.[845] This underlines a dichotomy of the hierarchical sensory structures at these depths – tactility versus vision – while also making them equal.

---

[840] Remy, *Dreaming Oneself Awake,* 121.

[841] The WCS's archival entry gives the dates c. 1929-1937, but the publication of these paintings as plates in the January 1932 issue of *National Geographic* to be narrowed this date window down considerably. Given the advanced planning inherent to publications, I establish this painting to be from sometime between 1929 and 1931. Also, the WCS cites the artist as Unknown, but the *National Geographic* feature attributes the work to Bostelmann. Lastly *National Geographic* calls the fish "Sabre-Toothed Dragonfish" and not the WCS's name, "Sloane's Viperfish." The taxonomic name used by both, however, is the same. "WCS-1039-01-05-U051-R | WCS Digital Archives | Wildlife Conservation Society," Wildlife Conservation Society, accessed June 15, 2021, https://wcs.access.preservica.com/uncategorized/IO_104f1f17-940b-4acd-a63c-103344429493/; Bermuda unnumbered illustrations I, between 1929 and 1937, bulk: 1929 - 1937, Flat-Box: 16, Folder: 1. Wildlife Conservation Society Archives, accessed June 15, 2021, https://wcsarchives.libraryhost.com/repositories/2/archival_objects/1403; Else Bostelmann, "Fantastic Sea Life from Abyssal Depths," *National Geographic* LXI, no. 1 (January 1932): Plate VIII.

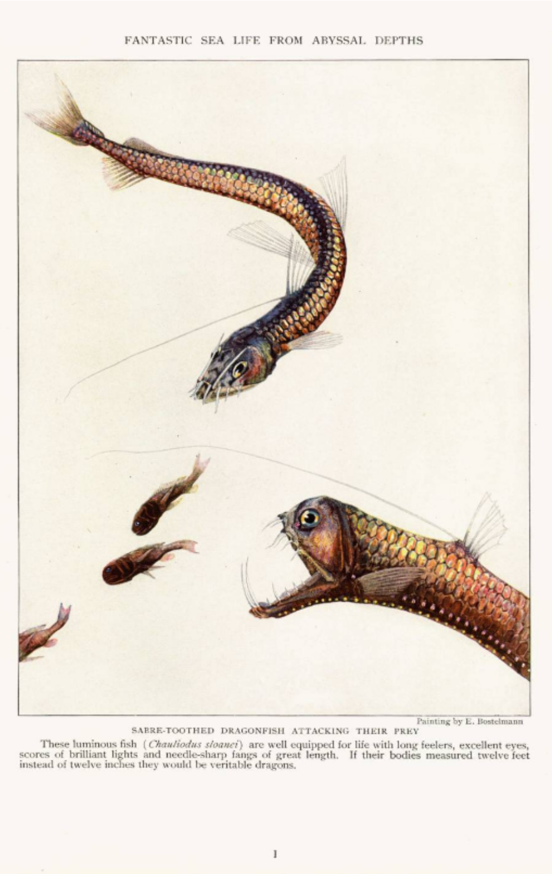
---

[842] William Beebe, "The Depths of the Sea: Strange Life Forms a Mile Below the Surface." *National Geographic* LXI, no. 1 (January 1932): 65. "These women unlocked the mysteries of the deep sea," National Geographic, accessed June 19, 2021. https://www.nationalgeographic.com/history/article/these-women-unlocked-the-mysteries-of-the-deep-sea. He also had a chapter in *Beneath Tropic Seas* called "No-Man's-Land Five Fathoms Down."

[843] Beebe, "The Depths of the Sea," 67.

[844] Beebe, 67-68.

[845] Beebe, 67-68.



FANTASTIC SEA LIFE FROM ABYSSAL DEPTHS

Painting by E. Bostelmann

SABRE-TOOTHED DRAGONFISH ATTACKING THEIR PREY

These luminous fish (*Chauliodus sloanei*) are well equipped for life with long feelers, excellent eyes, scores of brilliant lights and needle-sharp fangs of great length. If their bodies measured twelve feet instead of twelve inches they would be veritable dragons.

I

Fig. 3.19, Else Bostelmann, *Chauliodus sloani* (Sloane's Viperfish or Sabre-Toothed Dragonfish), c. 1929-31, *National Geographic*, January 1932, Plate I. Caption: "Sabre-Toothed Dragonfish Attacking Their Prey | These luminous fish (*Chauliodus sloanei*) are well equipped for life with log feelers, excellent eyes, scores of brilliant lights and needle-sharp fangs of great length. If their bodies measured twelve feet instead of twelve inches they would be veritable dragons."[846]

Women were an important part of Beebe's expeditions in the 1920s and 1930s. They took on active roles as researchers, including identifying animals brought back to the laboratory, maintaining active lines of communication while Beebe was in the bathysphere and documenting, which was Bostelmann's role as an artist.[847] Despite not working in the bathysphere herself, Bostelmann "often would put on a diving helmet, tie her brushes to a palette of oil paints, and drag her canvas underwater to paint and find inspiration," echoing Pritchard's work.[848] Beebe's project was ground-breaking for his largely female team, and despite criticism for the "de-professionalization of the field" by this inclusion, he challenged traditional gender roles and claimed "he'd hired his team for their 'sound ideas and scientific research.'"[849] Agar likely read that women – including a female artist – were working on this oceanographic expedition and felt an affinity for this defiance of gender roles.

---

[846] Bostelmann, "Fantastic Sea Life," Plate I.

[847] "These women unlocked the mysteries of the deep sea," National Geographic.

[848] "These women unlocked the mysteries of the deep sea," National Geographic. [Quoted from the exhibition catalogue *Exploratory Works: Drawings from the Department of Tropical Research Field Expeditions*, The Drawing Center, April 14–July 16, 2017, 129-130.]

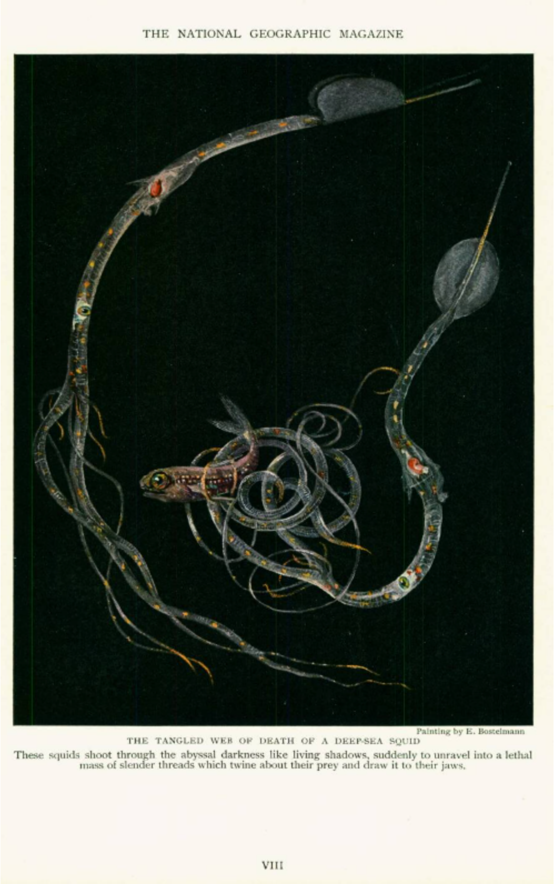
Another element in the top left section of the collage is a round object nestled into the crook of the swerving dragonfish. It is a shell, commonly known as an oxheart clam, or *Glossus humanus*. The image source notes its name as Heart Chama and is found in volume fifteen of a twenty-four-volume series of natural history drawings by naturalist and British Museum keeper, George Shaw (1751-1813).[850] The shell-fish configuration is all atop a darker grey-black background with classical architectural features with fluted capitals as well as a vaulted arch above and to the right of the centred silhouette. To its left is a vertical element that looks like igneous rock and there are holes positioned that make it look like a spectral horse skull with wide, gaping eyes and nostrils.

Next, in the top right quadrant, there is a flat black background with a dark silhouette of a bust atop. Inside there are creatures that appear completely otherworldly. At the centre there is a pink amoeba-shaped blob-sac with a flower with radial petals and polka-dots. It looks like a mysterious organ and has a few oculi as well as a valve like that of the octopus, as seen in the Painlevé film. The *informe* mass is surrounded by translucent tentacles branching off with eyes dotted along the wispy arms, giving it extra-sensorial capacities in the areas typically used for tactile sensation. Swimming through a mass of tentacles just below the organ-sac a fish looks directly at the viewer. Like the previous segment, this section features elements from both publications. There was a slight suspicion that Agar had added the eyes to the tentacles in the collage, but they appear in the original image (Fig. 3.20). These may be retinal eyes or an eyespot, commonly found on animals both on land and sea to deceive potential predators and prey. However, given the depth of their habitat, where vision is limited, these eyespots less useful than they would be to a butterfly, where the *trompe l'œil* eye would be seen. The eyes found in the centre of stalk of these squids' bodies are likely retinal. This depiction indicates a shift from cephalic retinality, where the eye is found at the top of the body, now moved to its base, shortly before the leg-like tentacles at the bottom begin. This echoes the scene in *Story of the Eye* where Simone takes the eye and lowers it vertically into the base of her own body.

---

[849] "These women unlocked the mysteries of the deep sea," National Geographic. [Quoted from "The Hollow Steel Ball That Changed Ocean Exploration Forever," Atlas Obscura, accessed June 19, 2021, https://www.atlasobscura.com/articles/bathysphere.]

[850] B. B. Woodward and Jacob W. Gruber. "Shaw, George (1751-1813), natural historian." *Oxford Dictionary of National Biography*, accessed June 20, 2021. https://www-oxforddnb-com.ezproxy01.rhul.ac.uk/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-25250. *The naturalists' miscellany, or, Coloured figures of natural objects; drawn and described immediately from nature* The series was published between 1789 and 1813, with the fifteenth appearing in 1803-1804. "Details - The Naturalist's Miscellany - Biodiversity Heritage Library," Biodiversity Heritage Library, https://www.biodiversitylibrary.org/bibliography/79941; George Shaw, "The naturalists' miscellany," Wellcome Collection, [Heart Chama, Vol. 15, 268].



THE NATIONAL GEOGRAPHIC MAGAZINE

Painting by E. Bostelmann

THE TANGLED WEB OF DEATH OF A DEEP-SEA SQUID

These squids shoot through the abyssal darkness like living shadows, suddenly to unravel into a lethal mass of slender threads which twine about their prey and draw it to their jaws.

VIII

Fig. 3.20, Else Bostelmann, [Unspecified Species of Squid and Fish], c. 1929-31, *National Geographic*, January 1932, Plate VIII. Caption: "The Tangled Web of Death of a Deep-Sea Squid | These squids shoot through the abyssal darkness like living shadows, suddenly to unravel into a lethal mass of slender threads which twine about their prey and draw it to their jaws."[851]

Beebe's writing on deep-sea squid eyes underlines their "amazing" and "astonishing" ocular capacities.[852] This confirms an awareness of the sensorial capacities of many undersea creatures as well as its presence in popular science periodicals. He references Bostelmann's Plate VIII, the base of the upper right quadrant, and describes the squid's eyes as "the center of development, the amazing focus of the squid's being."[853] Crustacean eyes are subsequently addressed, but not as enthusiastically as those of the squid, and while he notes the astonishing evolutionary feats achieved by many of these animals, he also highlights his own wonder at their sensory organs. Agar likely read the article filled with Beebe's discussion of all the sensorial abilities of these creatures which may have drawn her to these images.

---

[851] Bostelmann, "Fantastic Sea Life," Plate VIII.
[852] Beebe, "The Depths of the Sea," 70.

This quadrant's second element, the pink, membranous object, resembles a human vulva, tying in with Bataille's character Simone and ocular defilement. The creature's folds, colour as well as floral aspects all suggest genitalia, – or a *vagina dentata* – with an oculus at the centre and surrounded by the retinal tentacles vying to insert more eyes. However, it is the "Animal of the Nautilus Pompilius."[854] The provenance of the drawing is the same as that of the oxheart clam. The accompanying text in Shaw's volume explains that the radial elements are tentacles which surround its mouth and beak.[855] Despite the ocular resemblance, it is for feeding (taste) and tactility. The similarity of the valve seen in the octopus and the nautilus body is due to their close relation; despite being shell-bound, nautiluses are not gastropods. Like octopuses, they are found in the class Cephalopoda. Moreover, this close relation allows for those who already know Painlevé's films on the octopus to make the leap of faith facilitated by the filmmaker's anthropomorphization to connect sensorially with the nautilus.

In the bottom right quadrant, there is a black bust atop a dark grey mottled background resembling a cloudy night sky. Within this silhouette of the bust in profile – a classic position– is a picture of a Tanagra or Athena/Minerva statue, at a peculiar reclining angle. Its plinth features "AGAR" and 1939. In place of the statue's head, there is a limpet. The source of the statue is unknown, but the limpet is from Shaw's natural study.[856] Titled "The Brown Patella," little information is included about the creature, save its habitat and its other name, the brown Indian Limpet.[857] This ensemble recalls Breton's desire to go back to a "primitive state" of vision, with the evolutionarily less-advanced creature taking the place of the human head, here symbolised by the goddess of wisdom and the arts. Agar is blurring the human-animal boundary, allowing for the limpet to take control of the human command centre. She is also uniting art and science in the mind, which is echoed in her archived writings and discussed in a later section. This occupies the inside of the silhouette's head, adding an extra cerebral element.

---

[853] Beebe, 70.

[854] Shaw, "The naturalists' miscellany," Wellcome Collection, [Animal of the Nautilus Pompilius, Vol. 14, 229.]

[855] Shaw, "The naturalists' miscellany," [Animal of the Nautilus Pompilius, Vol. 14, 229.]

[856] Shaw, "The naturalists' miscellany," [The Brown Patella, Vol. 15, 102.]

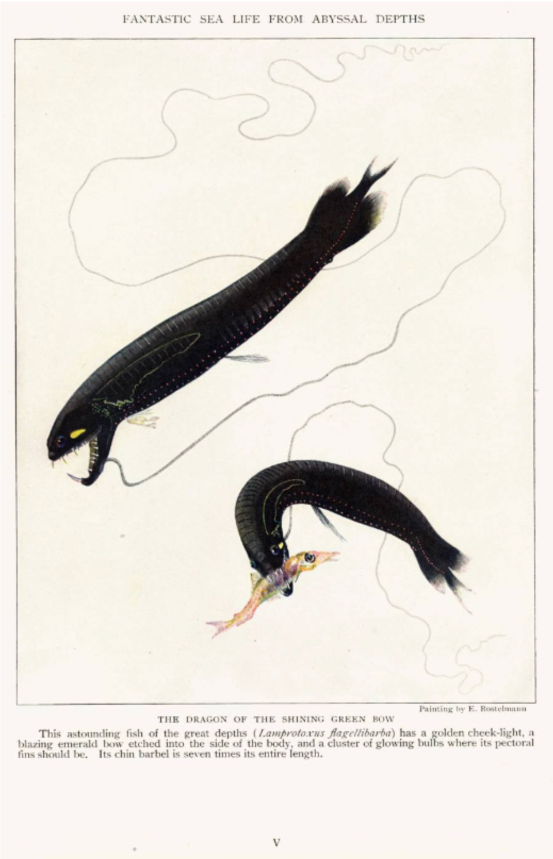
[857] Shaw, "The naturalists' miscellany," [The Brown Patella, 103.]

Lastly, in the bottom left section, there are two black dragonfish on an off-white background cut into a silhouette of a forward-looking head – as opposed to a bust. This is placed atop a flat black background. The fish's gnashing teeth are visible while feeding. Like quadrants one and two, this section is a composite of both scientific publications. The base of the silhouette is from the same *National Geographic* supplement (Fig. 3.21). Beebe addressed these fish in his essay, stating that the chin barb is for tactility and light which he observed briefly from the deep sea but did not survive long out of the depth, a problem also experienced by Painlevé. He described its cheek light mechanism as meta-ocular. "The cheek light actually glows continually, but in the dark its interrupted flashing was due to the revolving of the entire organ into a socket of jet-black skin. It was as if the entire fish was an eyelid…"[858] Precision was essential for his descriptions, as Bostelmann used them to blindly render the drawings based on his underwater observation, which he relayed to chief technical associate Gloria Hollister Anable via telephone who immediately transcribed.[859] Bostelmann's drawings were based on a game of telephone; she produced images based on Beebe's accounts a mile below.

---

[858] Beebe, "The Depths of the Sea," 70.

[859] "These women unlocked the mysteries of the deep sea," National Geographic.



FANTASTIC SEA LIFE FROM ABYSSAL DEPTHS

Painting by E. Bostelmann

THE DRAGON OF THE SHINING GREEN BOW

This astounding fish of the great depths (*Lamprotoxus flagellibarba*) has a golden cheek-light, a blazing emerald bow etched into the side of the body, and a cluster of glowing bulbs where its pectoral fins should be. Its chin barbel is seven times its entire length.

V

Fig. 3.21, Else Bostelmann, *Lamprotoxus flagellibarba* [Dragonfish], *National Geographic*, January 1932, Plate V. Caption: "The Dragon of the Shining Green Bow | This astounding fish of the great depths (*Lamprotoxus flagellibarba*) has a golden cheek-light, a blazing emerald bow etched into the side of its body, and a cluster of glowing bulbs where its pectoral fins should be. Its chin barbel is seven times its entire length."[860]

The final element to discuss from this collage is the zebra moray that Agar placed atop the dragonfish, occupying more than two-thirds of the head looking on menacingly, ready to strike. The plate is "Zebra Gymnothorax" from Shaw's studies of nature; its teeth are described as numerous and sharp, and its nostrils are tubular, highlighting its feeding and sensorial capacities.[861]

Beebe's scientific expedition team in Bermuda challenged gender norms making Agar's use of this magazine symbolic; these women contributed to scientific research.[862] Furthermore, the use of these resources speaks to Agar's interest in pioneering new worlds. *The Naturalists' Miscellany* included newly discovered species and were some of the first instances of documentation of flora and fauna from Oceania for the western world during maritime exploration.[863] Agar employed specific creatures from these volumes, despite having many different images to choose from in this multi-volume collection of natural history.[864] Beebe's own expeditions were ground-breaking in its introduction of certain fauna from his explorations. Being one of the first to plunge to these depths, he bridged the human and the marine.

---

[860] Bostelmann, "Fantastic Sea Life," Plate V.

[861] Shaw, "The naturalists' miscellany," [The Zebra Gymnothorax, Vol. 9, 144-145]. The drawing is noted as being based on a specimen from the collection of Mr. John Hunter. It is likely that the John Hunter in question is the pioneering surgeon, and avid animal collector, whose collection would go to on be the basis of the Hunterian Museum of the Royal College of Surgeons. Stanislav Strekopytov, "John Hunter's Directions for preserving animals." *Archives of Natural History* 45 (2018): 335-349; Wendy Moore, "John Hunter and the Origin of Species," *The Linnean* 22, no. 4 (October 2006): 13-20.

[862] Oceanographer Sylvia Earle credits this work with her own inspiration to join the field of marine biology. "These women unlocked the mysteries of the deep sea," National Geographic,

Observing where the collage's quadrants meet, the order of arrangement is visible and there are pinholes in the corners of several of the quadrants, indicating previous use in other displays. The work's name highlights the focus that the viewer should give to the collage: the marine. Each section features different species of sea creatures in a human silhouette, and in two instances they are paired with classical motifs. There are depictions of ferocious marine fauna within the Victorian-style cut-outs coupled with the classical imagery; the viewer is accorded X-ray vision into these heads. Moreover, instead of blank space within the silhouettes – which are eyeless human heads – these animals are placed inside the crania and given free reign. This implants their capacities. Coming from the ocean, they do not rely on retinal ocularity as their primary source of perception, lending their abilities to their hosts. Some also impart their bioluminescent technology, further expanding human perceptive capacities.[865]

Agar's use of classical imagery challenged the "hegemonic position of Greek antiquity in the context of European culture," while also employing a "complex process of appropriation of paradigmatic ancient Greek myths followed by their re-contextualization and reinterpretation from a modern vantage point."[866] The classical elements lend symbolic wisdom; the limpet-headed goddess statue in the lower right quadrant provides an accelerated evolutionary aspect depicting a benthic-classical union. This points to a re-recontextualization within the new post-World War I world in which abyssal creatures are entrusted to guide humans via new modes of sensing. Conversely, the classical element in the diagonally opposite quadrant remains in the background indicating separation. Three of the quadrants are dynamic, with the creatures swimming in their enclosure. However, the fourth, with its sessile limpet sitting atop the equally fixed statue, displays immobility. It is the only section that is eyeless, with the limpet's centre serving as the sole oculus. The creatures' capacities are paired with human abilities to expand perception. The silhouettes serve as a vehicle for the underwater world on display; facing in different directions enables heightened awareness of their environment.

---

[863] Edward Dickinson, Murray Bruce, and Robert Dowsett, "The Naturalist's Miscellany by George Shaw," (1789-1813): an assessment of the dating of the parts and volumes." *Archives of Natural History* 33 (2006): *passim.*

[864] According to a Christie's sale catalogue, it was rare for all twenty-four volumes of *The Naturalists' Miscellany* to be found together. This means that either Agar had at least the ninth, fourteenth and fifteenth volumes, or they had been reproduced in another publication together. "SHAW, George (1751-1813) and Frederick Polydore NODDER (fl. 1773-c.1801). The Naturalist's Miscellany: or, coloured figures of natural objects; drawn and described immediately from nature. London: Nodder and Co., [1789]-1790-1813," Christie's, accessed June 20, 2021, https://www.christies.com/en/lot/lot-5210181.

[865] For a historical contextualisation, its relation to Surrealism as well as references to sources for more information on bioluminescence, see Endt, "Reopening the Cabinet of Curiosities," 87-91.

[866] Nektaria Klapaki, "Greece," in *The International Encyclopedia of Surrealism*, vol. 1, ed. Michael Richardson (London: Bloomsbury, 2019), 77.

With its origins based in Cubism, continuing through Dada and into Surrealism, collage relates to the fragmenting of figures and objects.[867] Surrealists "favored modes of experience and creation that stage the clash of disparate elements to produce the spark, the moment of revelation, the marvelous…it is the means par excellence of subversion of rationalism or the doxa, thanks to processes of *détournement* of words or images and the imaginative re-configuration of signs."[868] Within the movement, collage took many forms, ranging from the exquisite corpse to the different cut-out forms by Arp, Miró, Ernst or Hugnet.[869] Krauss describes collage as language, "creating meaning through the syntactical condition of spacing."[870] Agar's own description of the process as being "a form of inspired correction, a displacement of the banal by the fertile intervention of chance or coincidence" reinforces the idea of recontextualization and reconfiguration.[871] *Marine Collage* is an inherently Surrealist object.

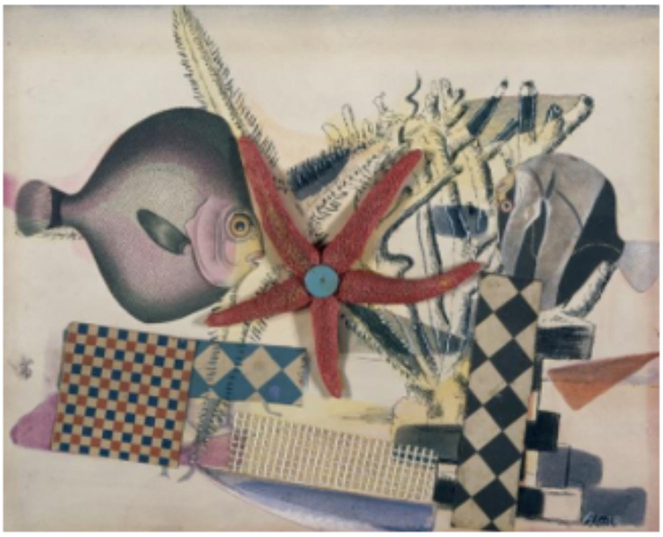
Agar's œuvre includes many collages, which can be expanded beyond the two-dimensional like *Fish Circus* (Fig. 3.22) into three dimensions.[872] This includes sculptural works such as *Ceremonial Hat* as well as *Marine Object* (Fig. 3.23), which are comprised of disparate elements brought together to create a wholly new object by "provoking new visibilities and creating the Surreal."[873] Agar discussed her own thoughts of the process, which she had been doing since childhood when she was sticking tram tickets together as a way of transformation, inserting "spontaneous juxtaposition" into her assemblages.[874] As Whitworth describes while quoting Agar, she was,

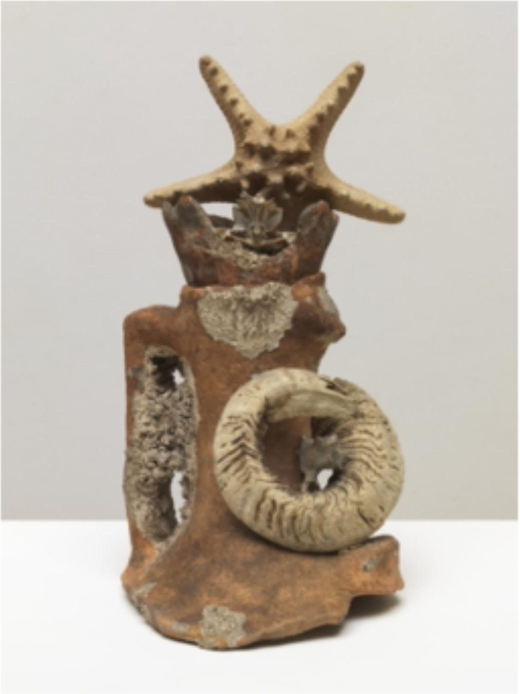
---

[867] Elsa Adamowicz, "Collage," in *The International Encyclopedia of Surrealism*, vol. 1, ed. Michael Richardson (London: Bloomsbury, 2019), 187.
[868] Adamowicz, 187.
[869] Adamowicz, 186-7.
[870] Krauss, "Photography in the Service of Surrealism," 25-28.
[871] Agar, *A Look at My Life*, 147.
[872] *Fish Circus* is more akin to being two-and-a-half dimensional due to the real starfish specimen among the paper collage elements.

> freed from preoccupation, with the surface of a canvas her imagination, sometimes in a spirit of frivolity and sometimes with deliberation, now combined elements with their own separate meanings and resonances. She wrote in her notebook, 'Juxtaposition is one of the secrets of modern art, not transition as it used to be, and for that collage is responsible, collage, the mother of mobility.'[875]

Agar found liberty within the structural confines of the many found objects and images she used in her assembled works – be it sculpture or collage or something between the two. She then created new meanings within their unions.





(Left) Fig. 3.22, Eileen Agar, *Fish Circus*, 1939, mixed media collage, 25.5 x 30.5 cm, National Galleries Scotland, Edinburgh
(Right) Fig. 3.23, Eileen Agar, *Marine Object*, 1939, mixed media, 42 x 34 x 23 cm, Tate, London

In addition to widespread themes of nature, silhouettes have been a mainstay within Agar's collages. *Marine Collage* as well as her other "filled" spaces echo the animated silhouette films by Lotte Reiniger, a contemporary of Agar, with each head in the collage featuring its own vignette or scene. By 1939 Agar had already employed the silhouette-bust motif many times, often containing flora and fauna, as seen in her 1938 work *Butterfly Bride* and *Woman Reading* (Fig. 3.24). Both collages have excerpts from a book that related "the history and dates of wars through the ages."[876] Moreover, the stencil used for these two works is identical to that of *Marine Collage*'s lower right quadrant, linking these three works. *Woman Reading*, like her other silhouetted collages, features layers of symbolism and physical elements that coalesced, forming a composition of Agar's archetypal themes: biological specimens, interior reality and the wisdom that comes from the natural world. This is exemplified in the nettle in the collage which, forming a brainstem leading to the head, provides protection with its ability to sting, like coral nematocysts.

---

[873] Adamowicz, "Collage," 189.
[874] Agar, *A Look at My Life*, 233-234.
[875] Whitworth, "The Angel of Anarchy," 32.

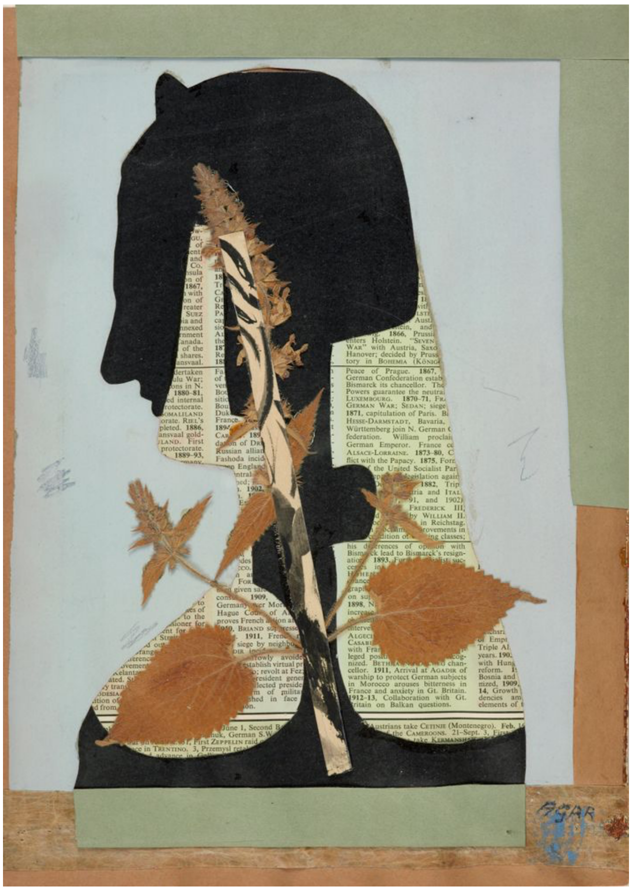


Fig. 3.24, Eileen Agar, *Woman Reading*, 1936, mixed media collage, 31.8 x 22.7 cm, Museum of New Zealand, Wellington

---

[876] The book was titled *The March of Time*. "Woman reading | Collections Online – Museum of New Zealand," accessed June 16, 2021, https://collections.tepapa.govt.nz/object/40619.

Agar's collages on paper, like much of her composite work, are visually and symbolically rich. These assemblages demonstrate her ability to create wholly new works of art from found, unrelated natural materials and objects and weave together a complex narrative filled with layers of meaning. This recalls Ernst's *Hundred Headless Woman*, which Desnos described as a "diary of an exploration."[877] Agar's work continues in this legacy, building on this technique in her own single-image scenes which combine both paper and real natural elements to construct a narrative that plombs the depths of vision as well as the sea.

[Materials at Tate Archives]

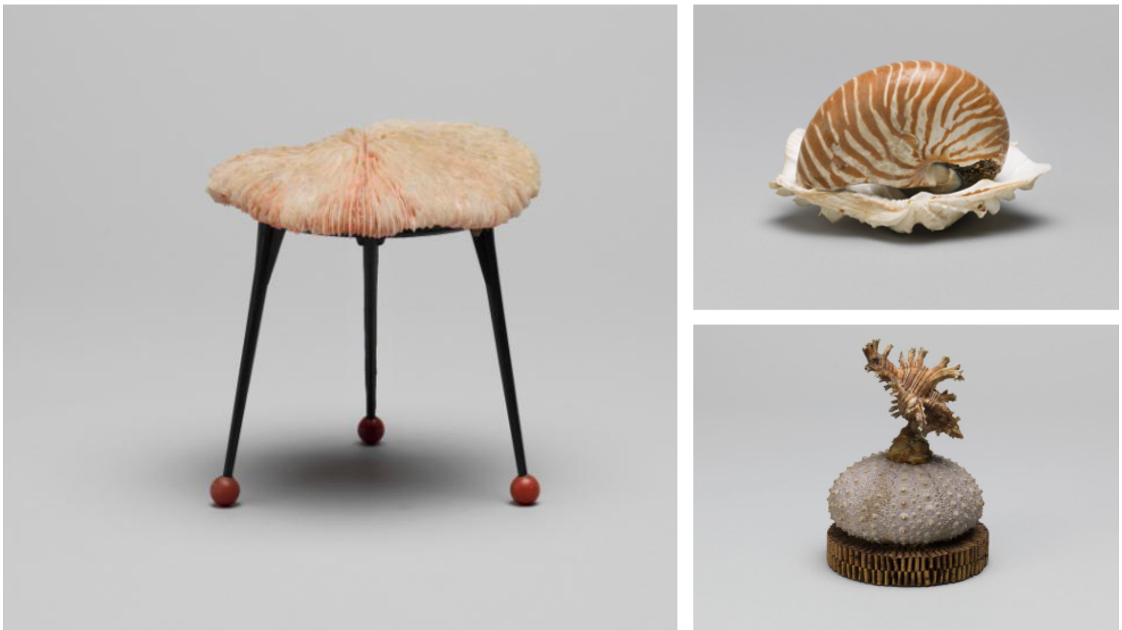
Agar's relationship with materialist science is less straightforward than that of Painlevé, making critical analysis of her artworks and archives essential when examining her from this angle. The biological elements, as they relate to being the study of life, fit in perfectly with the constructed narrative that Agar left behind, which include myriad instances of both specimens and representations of biology. The following section is devoted to Agar's archival materials, essential for understanding her life and her work. Its contents span her adult life, from 1917 until 1992.[878] They form the essence of her inner workings and demonstrate a legacy that, while curated by her and Tate Gallery, is emblematic of an artist wholly preoccupied with the natural world, especially the biological and the marine. Without an explanation regarding their origins, there are small composite sculptures found in her archives. This includes the objects in Figure 3.25 which had been in her home before the bequest and are indicative of the extent to which the marine permeated her surroundings.[879]

---

[877] Robert Desnos, "Max Ernst's Hundred-Headless Woman," *Documents* 4, 1930 translated by Krzysztof Fijalkowski and Michael Richardson for *Undercover Surrealism*, 205-206.

[878] "'Personal papers of and artworks by Eileen Agar,' collection owner: Eileen Agar, 1917-92 – Tate Archive;" Tate Archive, accessed May 30, 2021, https://www.tate.org.uk/art/archive/tga-9222/personal-papers-of-and-artworks-by-eileen-agar.

[879] "Hidden Treasures – Tate, Etc. | Tate," accessed June 16, 2021, https://www.tate.org.uk/tate-etc/issue-51-spring-2021/eileen-agar-olivia-fraser-hidden-treasures



(Fig. 3.25), Eileen Agar, (Left) *Sculpture consisting of a piece of coral glued to a plastic tripod*, TGA 9222-3-2-10; (Top Right) *Sculpture consisting of a nautilus shell glued to a clam shell*, TGA 9222-3-2-9; (Bottom Right) *Sculpture consisting of a shell stuck on top of sea urchin mounted on a base made out of woven bark*, TGA 92223-2-12; Tate Archives, London

In addition to these assembled creations, Agar occasionally wrote as a means of creative expression. The notebooks and essays found within her archives feature two playscripts as well as odd scraps of paper upon which she jotted thoughts regarding Lewis Carrol, memories of holidays, theories on painting and descriptions of the creation of some of her pieces. Amid these, various items emerge which indicate her ability to intertwine art and science, especially where she uses jargon in her creative writing. Writing in one notebook, she stated "the painter can accomplish his task only by giving tactile values to retinal impressions."[880] This indicates her engagement with both sensoria and science, revealing her acute awareness of the interactions between "the two cultures." Another notebook from 1927 "A Painter's Journal," describes "the painter as a philosopher of the eye."[881] Whitworth indicated that in 1929 Bard noted questions Agar had about the role of materialism, vision and art, including "'Should images go beyond the visible, and function as an idea made tangible. . .?'"[882] As this chapter seeks to explore, this was but one of many instances in which she engaged with ocularity in addition to the marine.

---

[880] Tate Archives TGA 9222/2/1/8.

[881] Whitworth, "The Angel of Anarchy," 12.

[882] Whitworth, 13.

Another instance pointing to not only an aesthetic affinity, but an actual, functional understanding of ocular processes comes from an undated, unpublished essay she wrote titled *A Journey Through the Eye*.[883] The essay references myriad scientific concepts, using terminology pointing to her active interest in the hard sciences. Terms such as "replicator modules as forbearers," "mitochondrion as a mother," having "a face like a jellyfish," needing "good eukaryotic cells instead of bad neurotic ones," the claim "we are nothing more than the result of a worm's mistaken mutation" as well as references to black holes, matter, entropy and human brain development, most notably being the sexual dimorphism in the corpus callosum, the bundle of nerve fibres in the human brain which facilitates communication between the left brain and the right brain, echo Maeterlinck and his reference to the two lobes.[884] Here, Agar points to the anatomical body which unites the creative right brain with the logical left brain, bridging art and science together in the mind once again.

A major figure during her interwar life, Nash was a figure closely associated with Agar's use of the marine. Their pelagic affair began immediately upon meeting in the summer of 1935 while she was holidaying in Swanage; from this time onward, Agar's influence is seen in Nash's artworks and vice-versa.[885] They would secretly meet in places such as zoos, aquariums and natural history museums. In addition to the sentimental exchanges in Nash's and Agar's correspondence, it was rife with talk about their work, sending each other drawings and other small artworks filled with aquatic imagery and affectionate messages.[886] Additionally, Agar recalled how Nash would bring her gifts and items found while beachcombing, "and as he said, he felt rather like a penguin, laying them metaphorically at my feet."[887] Agar included her letters from Nash when she bequeathed her effects to Tate, they were a testament to their connection to the marine both in their personal and professional lives.

---

[883] Tate Archives TGA 9222/2/2/3/2.

[884] "Corpus callosum." *Britannica Academic*, Encyclopædia Britannica, accessed June 30, 2018. academic.eb.com/levels/collegiate/article/corpus-callosum/474398..

[885] Agar, *A Look at My Life*, 108.

[886] Nash to Agar in an undated letter: "You are my cup of tea that never gets cold." Tate Archives TGA 9222/2/1/7. See also "Correspondence and small art works from Paul Nash and general correspondence to Eileen Agar," Tate Archives, TGA 8712/1.

[887] Agar, *A Look at My Life*, 110.

Agar wrote a piece titled "Notes for a Memoir of Paul Nash," where she recalls, "I was delighted when I found a very splendid specimen of a crucifix fish while beachcombing one day at Swanage in 1935, only to discover that Paul also possessed one. This struck a chord in him for he recognised a similar mentality which responded eagerly to the drama of the found object. My crucifix fish is now in a photo-montage he made of found objects."[888] Nash used the photograph of it for *Swanage*. (Fig. 3.26) Their synchronisation is displayed here, featuring also the "seaside monster," a composite object that Agar found on a beach in Swanage resembling,

> a long snakey monster with a bird's beak. It was clothed in stones, shells and all sorts of other marine accretions which gave it body and turned it into a remarkable object. It was an old anchor chain, metamorphosed by the sea into a new creation, a bird snake, or as Paul Nash called it, "a seashore monster." The sea and the land sometimes play together like man and wife, and achieve astonishing results. I did a watercolour of the monster, and Paul took photographs of it, later using it in a photo-collage entitled 'Swanage.' Alas, after I'd brought it back to London, the seashore monster did not survive the Blitz.[889]

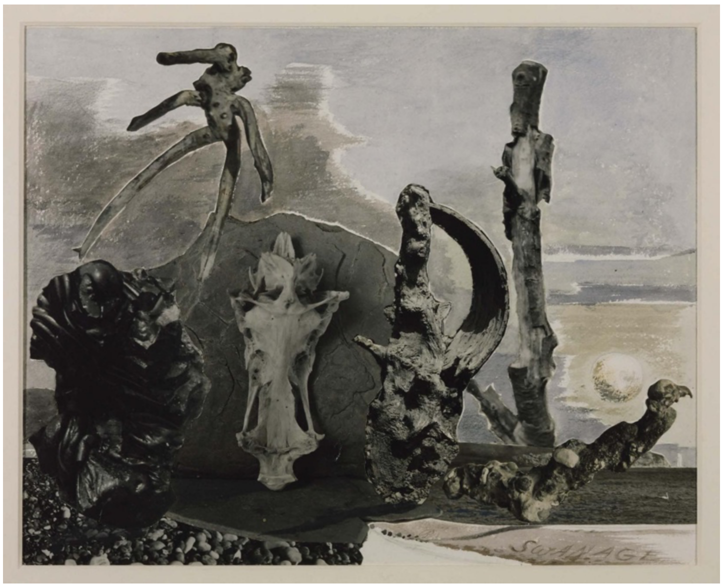


Fig. 3.26, Paul Nash, *Swanage*, c. 1936, graphite, watercolour and black and white photographs on paper, 40 x 58.1 cm, Tate, London

Their collaborations would prove to be mutually beneficial for their output, though Nash enjoyed more renown than Agar. It nevertheless explains her inclusion in the recent Nash retrospective at Tate Britain.

---

[888] Tate Archives TGA 9222/2/2/7. Agar donated her crucifix fish skeleton to Tate Archives, where it remains as TGA 9222/3/2/16. It is mislabelled as "Partial skull of an unidentified animal," with no mention of its relation to her work with Nash. TGA 9222/3/2/16.

[889] Agar, *A Look at My Life*, 112.

There, several of her interwar works were displayed, including *Marine Object* (1939) and *Untitled* (also known as *Coral, Seahorse)* (1935) (Fig. 3.27), a diorama-like sculpture in a box with coral, a plastic replica of the Eye of Horus, a reclining seahorse and netting. Allmer describes the work and the fact that the species of coral could never coexist with the seahorse due to differing depths and geographical habitats by quoting Ernst, who described this Surrealist notion "as 'fortuitous encounter upon a non-suitable plane of two mutually distant realities.'"[890] Additionally, there were some photographs and collages on exhibition which had been produced during their involvement.

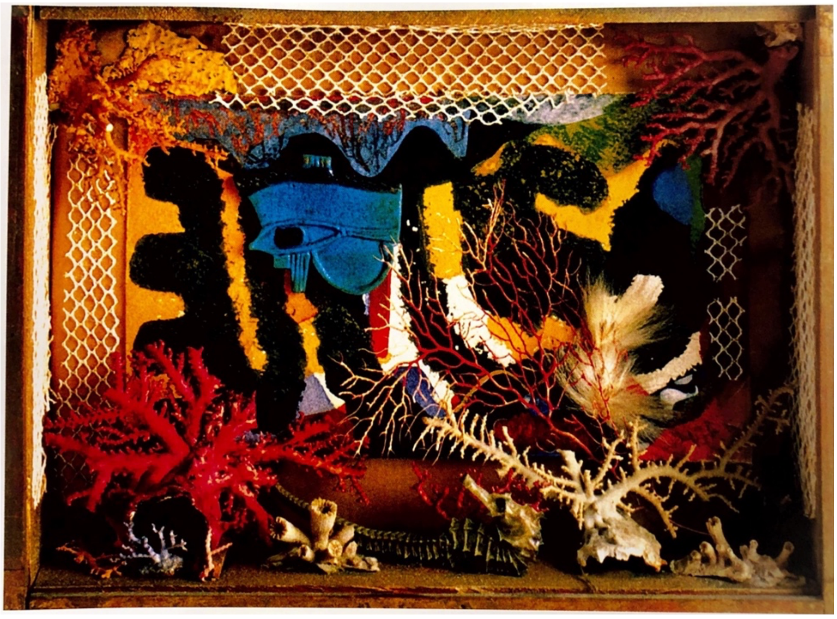


Fig. 3.27, Eileen Agar, *Untitled (Box)*, 1935, mixed media, 16.4 x 22.4 x 5.5 cm, Murray Family Collection

Diving deeper into Agar's bequest there is a treasure trove of glass plate lantern slides of various subjects. Acting as readymades, in that they figure in amongst her artworks with no distinction of being anything otherwise, they present a Surrealist point of entry for the collection of Agar's material posterity, with some having been altered by Agar where others were left untouched. Of the 124 glass lantern slides present, fourteen will be investigated in this study. Confirming Agar's active engagement in the biological sciences, they were used for teaching human anatomy to general audiences. Typically available for purchase from the local optician or photography shop, they were produced by York & Son, London at the end of the nineteenth century and are from a set of fifty-two slides, titled *Human physiology, popularly explained, or the house we live in*.[891] Illustrated by the English naturalist, author and teacher William S. Furneaux, they show details of the different systems and are divided into subsets: Skeleton, Muscles, Digestive Organs, Circulatory Organs, Respiratory Organs, Nervous System and Senses.[892]

---

[890] Patricia Allmer, "Eileen Agar, *Coral, Seahorse* (1935)," *Coral Something Rich and Strange*, ed. Marion Endt-Jones. (Liverpool: Liverpool University Press, 2013), 92. [Quoted from Max Ernst, "Inspiration to Order" (1937), *Beyond Painting* (New York: Wittenborn Schultz, Inc., 1948), 21.

Despite extensive research, much is still lacking to fully understand these slides' place and meaning as part of Agar's work. The artist, and the curatorial team charged with accepting her donated archives, specifically chose them to be part of her legacy. However, due to the incomplete nature of the documentation surrounding Agar's archives – plus the fact that there is either inadequate or incorrect information in relation to the slides – it is only possible to decipher their importance among what Agar left behind by means of historical and scientific contextualisation. The catalogue entries make no mention of what the slides are or how they came into Agar's hands; some of the titles are guesses as to what they could be. It could be theorised that her link to Professor Tonks and his background in medicine as well as his prior experience as an anatomy instructor at the London Hospital medical school relate to Agar's possession of these slides and their place within her archives. Fortunately, glass lantern slide scholars have shared their findings so that these items can be better understood in their original context. Resources like these served to enable this analysis of nearly each anatomical glass slide from Agar's archives, which will now be discussed.

Proceeding in numerical order by Tate Archives' reference numbering system, TGA 9222/4/8/46 (Fig. 3.28) is the first slide and is titled *Black and white glass lantern slide of cell structures*, dated circa 1930 in the catalogue. Unfortunately, this image does not correspond to the Lucerna database illustrations, meaning that it is one of the twenty-eight of fifty-two slides lacking an image in the database. Given the illustration's similarity with the confirmed images present in the database as well as the same style of numbers used on the diagrams, the slide is undoubtedly part of the series. Observing the structures depicted on the slide and compared with the titles for the slides lacking images in the database, this is number twenty, *Gastric Glands, Structure of Intestines*.[893]

---

[891] "Lucerna Magic Lantern Web Resource." accessed 12 June 2018, https://www.slides.uni-trier.de/set/index.php?id=3000592.
[892] "Guide to the York & Son human anatomy and physiology glass lantern slides, circa 1888-1900," Duke University Libraries, accessed 12 June 2018, https://library.duke.edu/rubenstein/findingaids/lizars-humananatomyslides; Lucerna Magic Lantern Web Resource.

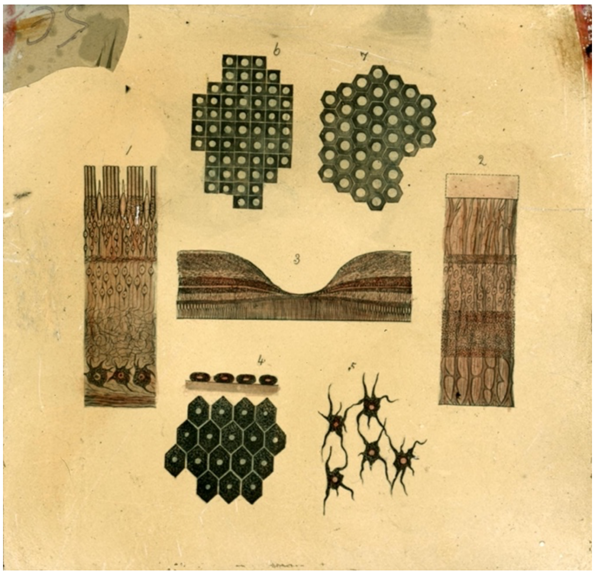


Fig. 3.28, TGA 9222/4/8/46, *Gastric Glands, Structure of Intestines*, c. 1888-1900, 8.3 x 8.3 cm, Tate Archives, London

For TGA 9222/4/8/55, the catalogue entry's title is accurate, *Ribs*, number seven in the series, though the slide in the digital catalogue appears to have been scanned upside-down.

Like the previous slide, TGA 9222/4/8/57 is accurate in its description, and is a *Human Skeleton*, number two in the series. However, for TGA 9222/4/8/60, Tate's catalogue only describes the slide as an "unidentified internal organ." The slide depicts the inner ear and is number forty-seven of the series.

TGA 9222/4/8/63 (Fig. 3.29) catalogued by Tate as *Colour glass lantern slide of a diagram of human teeth with a paper cut out of a plant enclosed between this slide and a blank one, presumably by Eileen Agar* is another example of Agar's meeting of art and science. The slide differs from the database image because Agar has intervened. It is slide number sixteen of the series, *Jaws*, and she has superimposed another glass plate slide featuring a leaf.

---

[893] Confirmed by Drs. Jolieke van Oosterwijk and John Brooke.

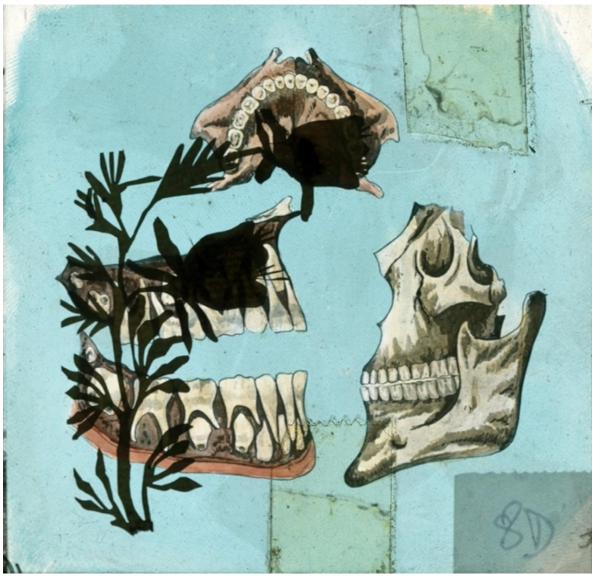


Fig. 3.29, TGA 9222/4/8/63, *Jaws Collage*, c. 1888-1900, Tate Archives, London

TGA 9222/4/8/65 is catalogued as a "diagram of nerves in the human body." It is the *Absorbent System*, a now-archaic term for the lymphatic system, number thirty in the series.

TGA 9222/4/8/69 is catalogued as "a diagram of cells." It is slide forty-five, *Minute Structures of Eye*.

Tate's name for TGA 9222/4/8/83 matches the Lucerna database, *Vertebral Column*, number five.

TGA 9222/4/8/84 is catalogued as "diagrams of different types of cells." This slide's style differs from the others and likely came from a different set. Additionally, the subject is difficult to determine, as they do not appear to be human cells.[894] Possibly a diagram of cells at different stages of development of a ray.[895] Consultation with a marine cytologist is needed to determine.

TGA 9222/4/8/85 is labelled as "unidentified biological diagrams." According to the York & Son series, it is *Minute Structure of Bone*, number forty-nine.

---

[894] Dr. Jolieke van Oosterwijk, confirmed this.
[895] Confirmed by Dr. John Brooke.

TGA 9222/4/8/86 (Fig. 3.30) is labelled as "a cross-section of an internal organ, possibly a kidney." This slide is *Transverse Section of Thorax*, number twenty-seven; the lungs, heart and spinal column are visible from an "overhead" position.

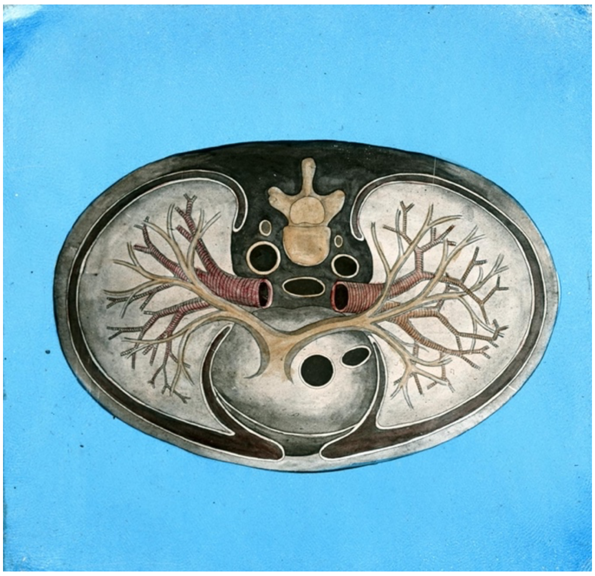


Fig. 3.30, TGA 9222/4/8/86, *Transverse Section of Thorax*, c. 1888-1900, Tate Archives, London

Tate titled TGA 9222/4/8/87 as "diagram of the skeleton and musculature of a human seen from the front." The online database for this series names the slide *Ligaments*, number ten.

For TGA 9222/4/8/88 titled "diagram of the musculature of a human seen from the back," the database has no image for this slide, but it is the *Spinal Cord*, number forty. The illustration resembles the network of nerves rather than the muscular system.

The final slide, TGA 9222/4/8/89, is catalogued as a "diagram showing the eyeball, brain and nerves of a human." In the lantern slide database, this slide is number thirty-three, *Section of Brain Showing Twelve Pairs of Nerves*, approximating Tate's classification.

Altogether, these slides bear witness to Agar's relationship with the study of life. They are also a direct challenge of prescribed gender roles. Despite having education terminating in French finishing school and part-time formal art education, she nevertheless acquired extensive knowledge of biological science – a domain not widely accessible to a woman then – demonstrated here by the slides relating to anatomy and physiology. Most of all, these slides represent a challenge to anthropocentrism. Considering the innumerable works with sea creatures, the inclusion of human subjects in her œuvre brings humans and marine fauna together on the same level of consideration.

Additionally, Agar's works featuring cut-out silhouettes feature elements which evoke lateral views of anatomical slides, thereby linking them to her works of art with views of the head such as the collages *Precious Stones* (1936), *Woman Reading* (1936), *Collage Head* (1937) (Fig. 3.31), *Butterfly Bride* (1938), *Marine Collage* (1939), *Head and Bird* (1939) and *Fisherman* (1950). Agar cuts away to reveal the inner workings of a specimen.

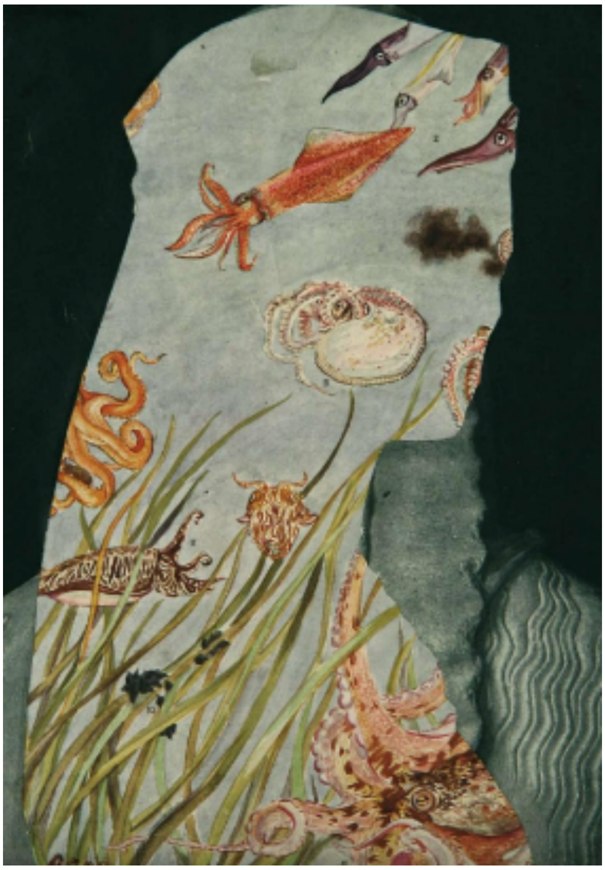


Fig. 3.31, Eileen Agar, *Collage Head*, 1937, collage on paper, 23.7 x 17.7 cm, Murray Family Collection

The consideration of these slides provides insight into their importance relative to Agar and Surrealism. Knowing what these slides were, why they were made and for what audience aids in better understanding Agar's engagement with materialist science. Museographically, no explanation is made for the presence of scientific educational tools in her archives nor her link to science. This can result in incorrect and possibly harmful conclusions about Agar's œuvre, leading some to mislabel her as having "a playful accent" instead of someone actively engaged in materialism.[896]

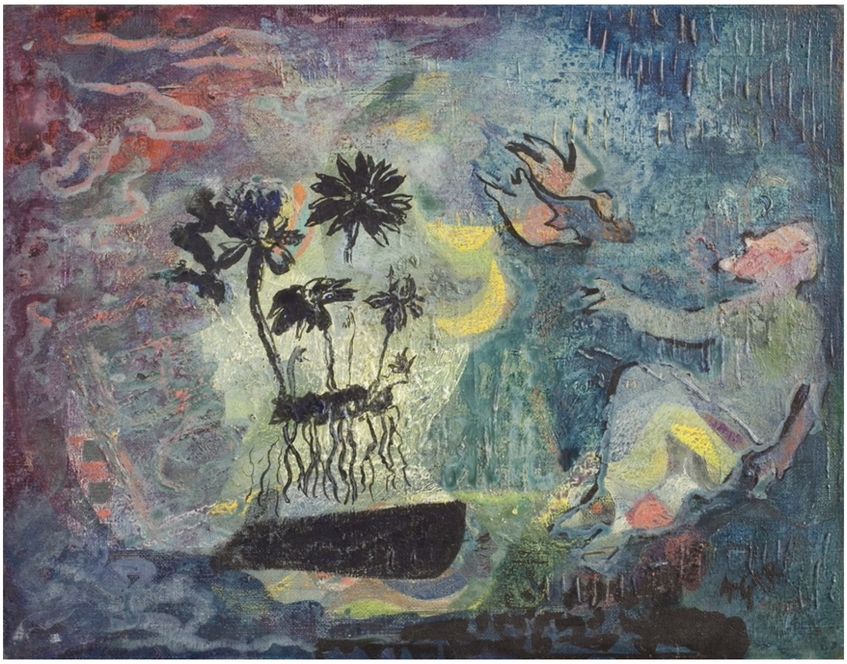


Fig. 3.32, Eileen Agar, *Bernard Shaw Feeding the Birds*, 1934, oil and wax on canvas, 35.7 x 45.5 cm, Private collection

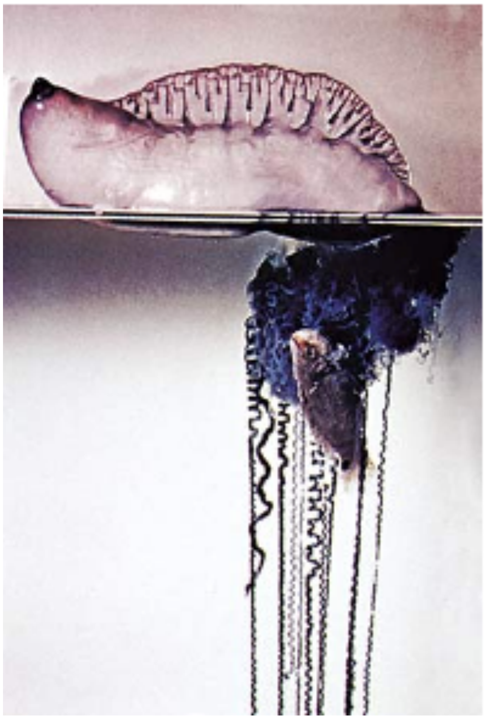
One work points to Agar's possession of scientific, anatomical and botanical slides originating as early as the 1930s, *Bernard Shaw Feeding the Birds* (Fig. 3.32). Though the title of the painting relates to the Irish playwright, the centre of the work features a large botanical mass resembling a floating island or a Portuguese man-of-war.[897] (Fig. 3.33) Compared to Shaw, who is off-centre and in silhouette, the plant is rendered in greater nuance. The tentacles – possessing cnidocytes, adding the element of defence recalling *Ceremonial Hat*'s coral –float in mid-air. Their ethereal quality fits in well with the watery nightscape. It is the brightest part of the painting, as if the siphonophore-like mass was bioluminescent. All these aspects –

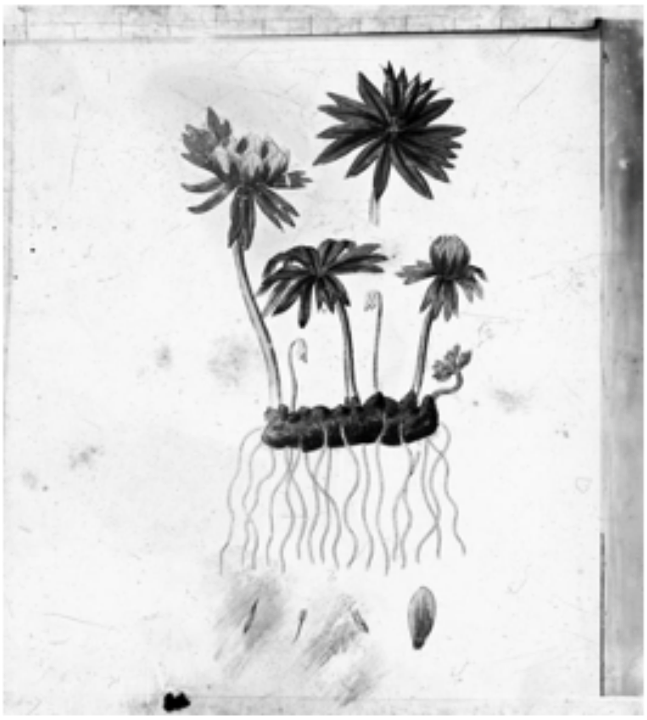
---

[896] A 1956 collage by Nigel Henderson titled *Collage for 'Patio and Pavilion' (the growth of plant forms)* displays a similar approach to using organisms from scientific sources in works of art. A more contemporary work is Remedios Varos' 1935 collage *La Leçon d'anatomie* which uses anatomical imagery of torsos, X-rays of ribcages and lungs.

[897] The parents of Painlevé's partner Geneviève Hamon were the official translators of Shaw, who provided them a large enough advance to purchase a home in Brittany. Painlevé would later use it as a studio for his films shot on the coast, and it was a summertime place of congregation for his and his friends including Boiffard, Prévert, Lotar as well as Alexander and Louisa Calder. Cahill, *Zoological Surrealism,* 9-10. The theme of the mandrake, the anthropomorphic botanical magic creature prominent in Surrealism, is also a point of exploration, but the work predates her affiliation with Surrealism – though not her knowledge of it.

centrality, light, scale, detail – point to this biological specimen as the true subject of the painting and underline Agar's engagement with nature.





(Left) Fig. 3.33, Portuguese man-of-war (*Physalia physalis*)
(Right) Fig. 3.34, TGA 9222/4/8/92, *Black and white glass lantern slide of a botanical drawing of various flowers (including snowdrops) showing roots and individual petals*, 8.2 x 8.2 cm, Tate Archives, London

The painting's jellyfish-like island is reproduced from a glass plate slide housed in the same archival boxes as the anatomical slides, TGA 9222/4/8/92. (Fig. 3.34) The provenance as well as information regarding Agar's relation to this slide, along with the dozens of other slides that are related to botany, are unknown. However, this serves as evidence of her use of scientific instruments, whether anatomical or botanical, that informed and influenced her work, as echoed in the painting and the other elements discussed in her archival holdings. Furthermore, this demonstrates that this engagement predates her affiliation with Surrealism, pointing to a unique contribution brought to the movement upon her arrival in 1936.

Other works by Agar feature strong links with the anatomical slides themselves, though no connection found thus far presents as prominently as *Bernard Shaw Feeding the Birds*, where the slide image is identical to the painting. *Erotic Landscape* (Fig. 3.35) features paper cut-outs of a clownfish, a brittle sea star, coral, an oversized arm bent at the elbow and a nude woman on top of a layered background. The cut-out of a round cluster of cells in a square frame is placed in the crook of the large elbow, close to the paper cut-out of the brittle sea star and overlapping the body of the nude woman with her arm over it. Remy describes the work as "imbued with the violence of desire."[898] Accounting for the work's title, *Erotic Landscape*, the biological imagery displayed with the nudity of the woman presenting a sensual yet cold view of nature, with the woman experiencing corporeal invasion from fish below and the starfish latching on to her arm and breast.

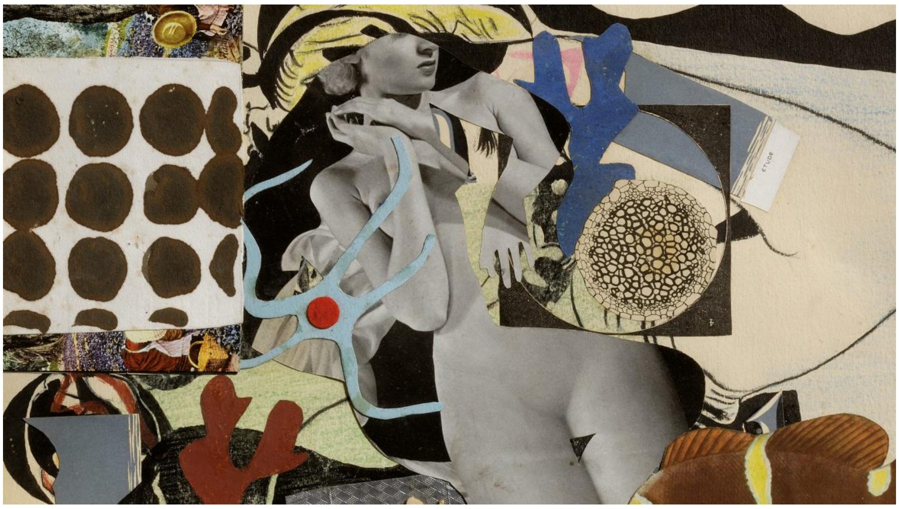


Fig. 3.35, Eileen Agar, *Erotic Landscape*, 1942, collage on paper, 25.5 x 30.5 cm, Private collection

Glass lantern slides were significant precursors to cinema, and in addition to recreation and entertainment, were used as instructional tools on an institutional level. Like Painlevé's scientific films they served as a means of mass dissemination and education of anatomical and physiological processes. Specifically, the York & Son slide set as well as Painlevé's films were intended for general audiences, acting as popular science films and glass lantern slides.

The inclusion of sea creatures in Agar's works confirms an engagement with the marine, but her interest extends well beyond marine biology to other areas of the study of life. This is not only indicated in the art that she created, but it is also strongly represented in the objects housed in her archives. Materialist science and the challenging of hierarchies are present throughout her work and especially in her pieces which represent the marine.

---

[898] Remy, *Dreaming Oneself Awake*, 141.

[The Artist and Her Contemporaries]

Networks of friendship were significant within Surrealism and demonstrate an interrelatedness inherent to the movement. They led to co-inspiration, collaborations as well as systems of support and camaraderie. Agar was an incredibly gregarious person, which came from growing up in a socially active family. Her adult convivial life went beyond London, a vast network of strong friendships reaching across Britain as well as the continent. Agar described all that she held dear, "beauty, colour, surprise, enjoyment, talk which mattered, not idle conversation which did not, warmth and real life-enhancing friendships – my ideals, my ambitions – besides good books and art which are beyond time, glimpses of eternity. This is what I wanted. This is what I needed."[899] As a supplement to the connections between Surrealists drawn throughout this thesis, this section discusses Agar's networks and serves to illustrate her strong links within myriad avant-garde circles.

One significant moment in Agar's early years as a Surrealist is a holiday she took with Bard, where they first went to the Cornish countryside in July 1937 with Paul and Nusch Éluard as well as Man Ray, Ady Fidelin, Lee Miller and Penrose. They then continued to the south of France where they reunited in Mougins with Picasso and Dora Maar at the Hôtel Vaste Horizon.[900] (Fig. 3.36) This trip was especially impactful for Agar and demonstrates her ongoing connection to the British and continental groups beyond the exhibition in London the previous summer. She admired Picasso greatly and fondly remembered the informal moments shared that summer.[901]

---

[899] Agar, *A Look at My Life*, 40.

[900] This same holiday is recounted from Lee Miller's side, including a collage she made with a postcard as well as photographs of Maar and of Agar and silhouettes symbolic of this sojourn in Allmer, *Lee Miller*, 92-118.

[901] Agar, 132-143.

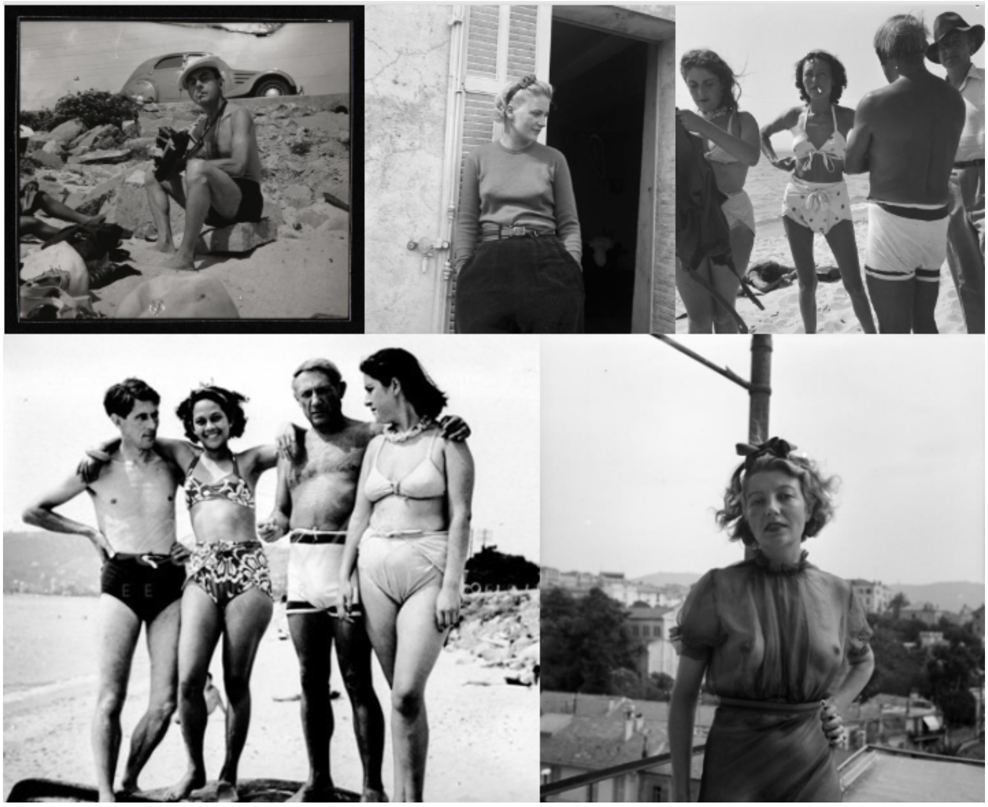


Fig. 3.36, Photographs from September 1937 holiday in Mougins, France.
(Top left) Eileen Agar; *Man Ray at the Beach in Juan-les-Pins, France*
(Top centre) Eileen Agar; *Lee Miller at Hôtel Vaste Horizon*
(Top right) Eileen Agar; *Dora Maar, Nusch Éluard, Pablo Picasso & Paul Éluard on the Beach*
(Bottom left) Lee Miller; *Roland Penrose, Ady Fidelin, Picasso and Dora Maar*
(Bottom right) Joseph Bard; *Eileen Agar on a Balcony in France*

Beyond the social aspect of the holiday, these artists found themselves in close quarters, assuring artistic osmosis, with Picasso painting, Man Ray photographing and Agar beachcombing for future assemblages. With the barrier of geographical distance stripped away, this group of artists was able to observe each other at work and to see their current projects created in tandem with their own. Agar mentioned needing to resist influence of other artists during this trip. Indeed, the most Agar confessed was a cork in one of her works, *The Object Lesson* (1940). Picasso premonitorily gave it to her to put between her teeth to stop them from chattering during the Blitz because he knew that the bombs were coming to London.[902] He had been affected by the Spanish civil war and foresaw the doom about to befall Europe before most others of their party could realise.

---

[902] Agar, 140. It was stolen and replaced with another cork.

Another important moment in Agar's life was in 1935 when she was invited by a friend to holiday in Swanage where she met Nash. Initially, Paul, his wife Margaret, Joseph and Eileen all got along very well. As mentioned, their artistic influence and collaboration was significant during this period. While not all of Nash's works were like those of Agar, his marine-themed pieces were certainly similar. Agar's war-themed pieces, such as *Fighter Pilot* (1940), were inspired by Nash's career as a war artist in both World Wars I and II. Agar acknowledges that she and Nash influenced each other's work, but she insists that she had more influence on him than the inverse.[903]

Describing her way of working, she compared it to that of Yves Tanguy, who would walk,

> along the beach noting the tiny marine forms, studying the seaweed and the rocks. Then he would go back to his studio and create a painting which made references to what he had seen, yet nature would only be the starting point for his imagination. I adopt a similar approach, though at the same time, abstraction would also be exerting its influence upon me, giving me the benefit of geometry and design to match and balance and strengthen the imaginative elements of a composition. Outer eye and inner eye, backward and forward, inside out and upside down, sideways, as […] [an] airplane might go, no longer classical or romantic, medieval or gothic, but Surreal, transcendent, a revelation of what is concealed in the hide-and-seek of life, a mixture of laughter, play and perseverance.[904]

Though I am unsure of her relationship with Tanguy outside of exhibiting together, they likely had some sort of connection. Tanguy's relationship to the natural world and the marine were ongoing themes in his own work, with otherworldly scenes and biomorphic figures suggesting extra-terrestrial beachscapes, reflected in works such as *Azure Day* (Fig. 3.37). The amoebas and beings arranged in the fore- and middle-ground on the sand have been filtered through Tanguy's imagination, resulting in a horizonless panorama of Surreal bio-activity that is as likely to have been on the shore as on the ocean floor. His familial connection to the region of Finistère, Brittany is visible in his work.[905] The area was known for its "prehistoric menhirs – tall upright standing stones such as the yellow form to the right of the painting – and dolmens – composite megalithic forms" and was also close to "the site of the legendary sunken city of Ys, a myth that almost certainly inspired some of Tanguy's more subaquatic landscapes," which provides context for his many works which feature otherworldly vistas.[906]

---

[903] Howell, "A-Head of Her Time," 88.

[904] Agar, *A Look at My Life*, 121.

[905] Ades, "Yves Tanguy," in *The International Encyclopedia of Surrealism*, vol. 3, ed. Michael Richardson (London: Bloomsbury, 2019), 305.

[906] "'Azure Day,' Yves Tanguy, 1937 | Tate," Tate, accessed July 5, 2021, https://www.tate.org.uk/art/artworks/tanguy-azure-day-t07080.

Though Agar remained within kingdom Animalia, there is a dialogue between her work and that of Tanguy, with the inner and outer eye working in tandem.[907] His biomorphic work situates itself between her marine fauna and the proclaimed other facet of her œuvre, abstraction. Agar's relation to nature was manifested in her paintings, collages, photos and sculptures, representing a kind of symbiosis. Whether she considered her creation to resonate with Tanguy's work or if his methodology simply inspired her, their use of the marine biological and biomorphic in their work is a striking parallel.

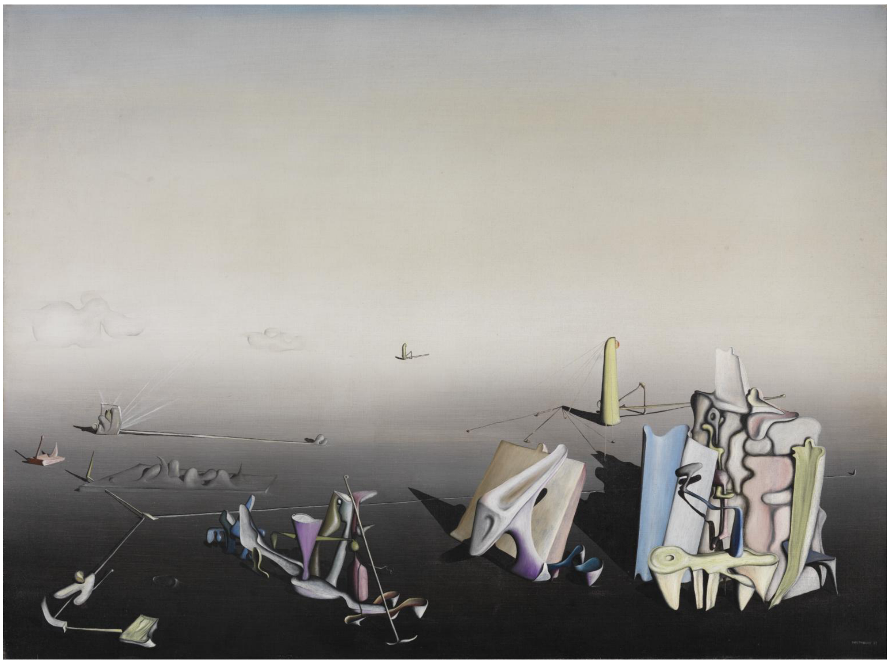


Fig. 3.37, Yves Tanguy, *Azure Day*, 1937, oil on canvas, 63 x 81.2 cm, Tate, London

Many elements found within Agar's sculptures, collages and other assemblages are comprised of found objects. Beachcombing was a favoured pastime during her countless trips to the seaside, collecting different items that had washed up on the shore, either natural or manmade. Her studio was filled with objects found while she was out in nature. "I'm very fond of putting different things together to make a totally new object. I used to have a big box full of things that I'd collected and one day I'd look for something and find it, you see, what I wanted."[908] They serve as visual accounts and physical manifestations of her life from a time and place. It was both source material for her artwork, and souvenirs commemorating memories she held dear. These works reflect moments of camaraderie.

---

[907] Endt notes that Breton described the idea of the animal, mineral and vegetable kingdoms as "'the height of absurdity,'" in a passage on Yves Tanguy. Endt, "Reopening the Cabinet of Curiosities," 114-5. [Quoted from Breton, *Surrealism and Painting*, 44.]

Agar's own network of avant-garde circles of friendships predates her meeting with Nash, whom Agar suspected sent Penrose and Read her way, leading her to encounter the others exhibiting at the New Burlington Galleries.[909] These date to her adolescence when her music teacher, Kesteven, introduced her to the world of art.[910] Later, at the age of twenty-one, he took her to the studio of Charles Sims who was also the keeper at the Royal Academy and trustee at Tate Gallery. Agar recalls the multisensorial experience of her first taste of an atelier, stating "the excitement of the occasion remains in my mind, for it was the first time I had been in a professional artist's studio. I ate it up with my eyes, my nostrils snuffed the heady odour of wet paint, my fingers itched to turn the canvasses lined up against the wall, and find out what surprises lurked there."[911] She remained friends with Kesteven after leaving Tudor Hall and later introduced his daughter Mary to Jacques Brunius, assistant director of *L'Âge d'or*, the 1930 Buñuel film which followed *Un Chien andalou*.[912] Outside of her scholastic artistic connections, she also counted Alec and Evelyn Waugh as well as Cecil Beaton as long-time friends.[913] (Fig. 3.38 & 3.39)

---

[908] *Eileen Agar Interviewed by Cathy Courtney. NLSC: Artists' Lives.* Rec 01/06/1990.
[909] Agar, *A Look at My Life*, 115.
[910] Agar, 28.
[911] Agar, 36.
[912] Agar, 159
[913] Agar, 91.

(Left) Fig. 3.38, Joan Waugh; *Evelyn Waugh, Joseph Bard, Eddie Sackville-West, Eileen Agar & Alec Waugh at Oswalds, Bishopsbourne, Kent*; 1933
(Right) Fig. 3.39, Cecil Beaton, *Portrait of Eileen Agar*, 1927

Another aspect of her artistic social network is linked to her time as a pupil at Leon Underwood's studio in Brook Green. It was here that she met Rodney Thomas, Blair Hughes-Stanton and Warren Vinton. Though before that she met her future husband Robin Bartlett, who was a fellow Slade student. The union did not last long, however; Vinton introduced Agar to Bard, a Hungarian writer who would go on to be influential, introducing her to the classics and literature. In addition to small touches of antiquity intermittently found in her work, Agar pays homage to him in other ways, like in *Precious Stones* (Fig. 3.40) featuring a silhouette filled with neatly arranged pebbles, cameos and jewels, a nod to Bard's own extensive collection of precious stones.

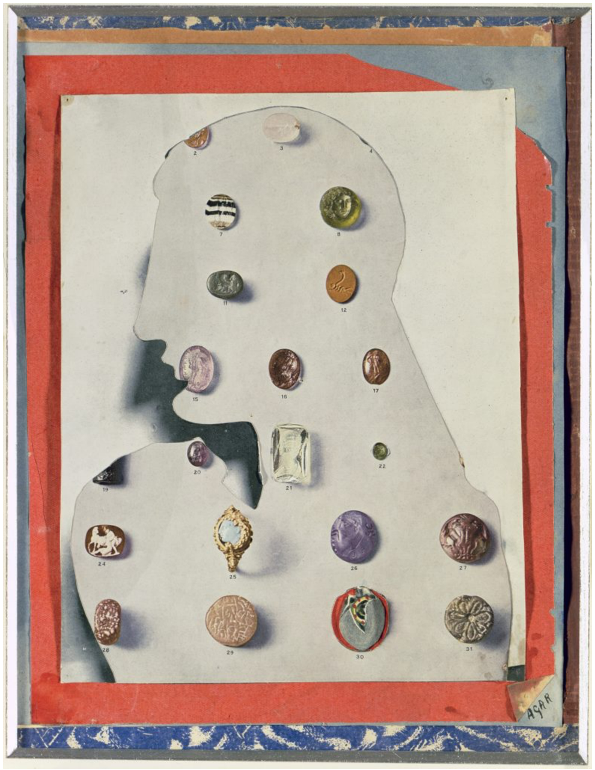


Fig. 3.40, Eileen Agar, *Precious Stones*, 1936, collage on paper, 26 x 21 cm, Leeds Museums and Galleries

Amongst her works, it is *Ceremonial Hat* and all its iterations that best embodies the friendships forged and memories made during her life. Agar was known to collect things as she went and to keep them until she found their use. The hat serves as a collage of time and memory. Though the provenance of each item from each version may be unknown, the objects are known to have come from beachcombing and purchases while traveling, as recounted in her memoir of when she displayed her *trouvailles* to Picasso in Mougins.[914] Each addition to an assemblage acts as a witness to new places visited and new acquaintances made, expanding her network of relations in the art world, and using marine life and objects to tell this story.

Her work and archives serve as a memento of space and culture. This section will explore these themes and their impact on Agar's work, how they functioned as a guide through the artist's life, with shortcuts from one moment to another. *Ceremonial Hat* served as an evolving, symbolic memory palace whereby each part's presence or absence acted as a recollection point. Its initial configuration consisted of shells, found objects and marine life from vacations past. As those memory pieces left the hat, more from her experiences were added on. Her collages and her sculptures are small parts of her life arranged together; sometimes telling only one story, other times telling many stories at once. *Ceremonial Hat* was assembled using items from not just one holiday at the sea, but rather created and evolved over time, symbolizing her deep connections with nature, and more specifically the marine.

---

[914] Agar, *A Look at My Life*, 137.

Another instance of an incarnation of a memory is *Marine Object.* This sculpture made of terracotta, horn, shells and bone tells a story of one of Agar's many sojourns in France. In the spring of 1939, she and Bard were holidaying in Toulon. One day, while visiting Carqueiranne, a nearby fishing village, they began watching the fishermen unload their nets onto the docks. Agar spied a Greek amphora caught in the net and asked a fisherman if she could take it; he was more than glad to part with it, as it was tearing up his nets.[915] Agar used the ceramic pieces as the central base of the sculpture, leaving the decorative aquatic accretions and adding a horn, a bone, a shell and topping it with a starfish. Like *Marine Collage* she is depicting a benthic-classical union. In addition to evocations of underwater archaeological excavations to recover classical artworks from the bottom of the Mediterranean Sea, Agar is again pointing to a re-recontextualization within the interbellum in which abyssal creatures are entrusted to guide humans via new modes of sensing, especially with the threat of the Second World War looming. In describing its assemblage, Agar recalled that it "was already in two pieces, and so, adding a ram's horn that I had picked up in Cumberland to the encrustations already there, it was short work making 'Marine Object' – though it took me and the amphora a long time to attempt such a conjunction!"[916] The ability of this piece to conjure up memories is indicative of the type of work Agar creates. Her work serves as a time capsule allowing the viewer to transport to the past and relive specific moments of Agar's life and relate to her relationship with the marine.

Ceremonial Hat symbolised Agar's rejection of the traditional roles of women. She subverted them by inverting the bowl and wearing it on her head, parading her defiance not just of ocular sensory pre-eminence or the redefining of a bowl as a hat, but more broadly in terms of her life and social context. In her own life Agar thwarted traditional gender roles, rebelled against her Victorian mother's rules and rejected genteel society's expectations. Domesticity and a women's place in the home were not typically questioned, and with her art and life, she showed that she was not interested in adhering to the conventions prescribed by English society. She chose to leave her first husband after one year of marriage and subsequently lived with Bard – whom she called her muse – for fourteen years before marrying him.

---

[915] Agar, 144.
[916] Agar, 144.

She never had children, which she attributed to a lack of maternal desire.[917] She nevertheless had a strong theme of celebrating female fertility as a source of artistic creation, with works like *Autobiography of an Embryo* and wrote on the topic of "womb magic" in 1931 in the fourth and final issue of the revue she helped run with Underwood and Bard, *The Island*. She stated, "'the intellectual and rational conception of life has given way to a more miraculous creative interpretation, and artistic and imaginative life is under the sway of womb-magic.'"[918] She claimed that it signified "the dominance of female creativity and imagination."[919] These references to the abilities of the female body to reproduce underlines less the ability to procreate and more her inherent ability to *create* as an artist, especially one with a strong connection to the sea. This theme can be traced prior the work of Agar. "Jules Michelet's *La Mer* (1861) is the epitome of a trend to conflate the sea ('la mer') with the maternal body ('la mère') and to think of seawater as akin to milk or amniotic fluid."[920] Though Agar was what Lambirth describes as anti-maternal later in life, she nevertheless celebrated this power of intellectual fertility.[921]

Agar was one of the few active female British Surrealists during its early days. Agar explained, "in those days men thought women simply as muses. They never thought they could do something themselves, and I'm always astonished how they let me in to the 1936 exhibition."[922] Agar was perhaps fortunate to have been in the British circle when membership was still undefined instead of inspirational fodder for the male continental Surrealists with dogmatic leaders.

---

[917] Agar, *A Look at My Life*, 204.
[918] Remy, *Dreaming Oneself Awake,* 35. [Quoted from Eileen Agar, "Religion and the Artistic Imagination," *The Island* 4 (December 1931): 102.]
[919] Agar, *A Look at My Life*, 99.
[920] David Lomas, "Pipilotti Rist, *Sip My Ocean* (1996)," in *Coral: Something Rich and Strange*, ed. Marion Endt-Jones (Liverpool: Liverpool University Press, 2013), 101. See also marine zoology enthusiast Ernst Haeckel's human embryo drawings, which have since been found to have been inaccurate, but were in use for scientific education for about a century. Elizabeth Pennisi, "Haeckel's Embryos: Fraud Rediscovered," *Science* 277, no. 5331 (1997): 1435.
[921] Lambirth, "A Question of Dates," in *Eileen Agar 1899 – 1991*, ed. Ann Simpson, Edinburgh: National Galleries of Scotland, Scottish National Gallery of Modern Art, Exhibition catalogue, 40.
[922] *Eileen Agar Interviewed by Cathy Courtney. NLSC: Artists' Lives.* Rec 18/04/1990.

[British Surrealism]

As Remy forewarns, British Surrealism's dichotomies make it difficult to pin down. "It was a source of both unity and disparity, of 'free unions,' […] so much so that it can hardly be defined at any moment by any list of members. In its own working, the British Surrealist group unwittingly showed how impossible it was for any such body to have a *definitive* presence."[923] This ominous warning echoes Agar's reasoning for British Surrealism's inconsistency as "the lack of sustained interest in collective work" as well as the "British individualistic diffidence towards ideologies and the formation of closely knit groups."[924] Many of the names mentioned earlier will appear within the context of their role within this collective. It has nevertheless been an important facet of international Surrealism. Though the following section remains focussed on the interbellum, British Surrealism's current spring tide, especially in Leeds, demonstrates the movement's ongoing relevance.

British Surrealism was partially born in Paris but fully within a legacy of the British intellectual, cultural and Romantic tradition. Though prominent at its outset, this continental surrogacy would later yield as the British Surrealists forged their own independent movement, though there was never a full schism. Despite 1936 being "seen as the year Surrealism was introduced to Britain," it was only in the form of "an organized presence."[925] From the Manet and Post-Impressionist exhibition to Vorticism, several events functioned as precursors, paving the way for a British Surrealist group. Chronologically overlapping and rhizomatic due to the individual pools of activity – especially in the form of publications – on both sides of the Channel that would later bridge across it, this next section aims to provide insight into the topography surrounding the road to Surrealism in Britain.

---

[923] Remy, *Surrealism in Britain,* 21.

[924] Agar, *A Look at My Life*, 146. Remy, *Surrealism in Britain,* 21.

[925] Nikos Stabakis, "Britain," in *The International Encyclopedia of Surrealism*, vol. 1, ed. Michael Richardson (London: Bloomsbury, 2019), 17.

In England, this path took shape within the circles of late 1920s undergraduate Oxbridge students who began to publish avant-garde journals. One such journal was *Experiment*, the first issue of which appeared in November 1928, with a manifesto stating an "emphasis on 'a clearing up of beliefs' and the 'building up of a uniform and contemporary artistic attitude.'"[926] Contributors included Humphrey Jennings, Hugh Sykes Davies – both editorial board members – and Julian Trevelyan who would all go on continuing in the quest to upset the axioms of art and literature as prominent British Surrealists. Given their Cambridge base, those within the *Experiment* group had been educated in empiricist methodology and aimed to create a space where "science and art synthesised" in a "mutually enriching discourse."[927] Other contributors' areas of expertise ranged from natural sciences to economics, creating a wellspring of knowledge where in the inaugural issue an essay on biochemistry found itself beside one on film.

This comingling of art and science was repeated in the second issue "which reproduced abstract and Surrealist paintings by Henri Cartier-Bresson and a scientific materialist account of 'Death' by […] another biochemist."[928] Sykes Davies' poem *Vendice* from the same issue features Mallarmian-Apollinarian visual-poem typography and numerous anatomical references to the skeletal system.[929] The journal began "presenting an unparalleled rapprochement between Cambridge English and the French intellectual and literary avant-garde."[930] This was especially seen beginning in the fifth issue in which Jacob Bronowski – who would later gain renown for public science education – took the helm and when many of the magazine's editors and contributors began traveling to Paris regularly. Additionally, Cartier-Bresson and Louis le Breton were enrolled at Cambridge, introducing the group to *Cahiers d'art*. This spurred a frenzy of Francophilia, resulting in Trevelyan moving to Paris and *Experiment* finding its way into anglophone bookshops like Shakespeare and Company by February 1930.[931]

---

[926] Remy, *Surrealism in Britain*, 28. In a parallel to the Goll and Breton dispute in 1924, a rival newspaper at Cambridge, *The Venture* vied for first appearance in early 1924, with *Experiment* arriving a fortnight later. The two differed greatly; *The Venture*'s "essays, short stories, woodcuts and poems […] were unlikely to *épater les bourgeois*." Jason Harding, "'Experiment' in Cambridge," *The Cambridge Quarterly* 27, no. 4 (1998): 296.
[927] Aoiffe Walsh, conversation on July 7, 2021.
[928] Harding, "'Experiment' in Cambridge," 291.
[929] Hugh Sykes Davies, "Vendice," *Experiment* 2, (Feb 1929): 16-17.
[930] Harding, "'Experiment' in Cambridge," 288.
[931] Harding, 292-293.

Bronowski, Trevelyan, Jennings and Sykes Davies were featured as guest contributors under *Experiment*'s banner in the June 1930 issue of *transition*, occupying thirty pages and adding a link between avant-garde England and France. A few months later *Experiment* began to allow submissions from contributors unaffiliated with Cambridge, such as George Reavey, who would later become a Surrealist. This plus more sophisticated topics, including translations of Éluard's work, demonstrated a growth into Surrealism and that it was maturing beyond its status as an undergraduate publication.[932]

Their seventh issue, *The New Experiment* was published in March 1931 and featured an enhanced format in addition to the new name. With excerpts from unpublished work by James Joyce, commercial success was certain. The editorial introduction by Sykes Davies and Bronowski underlined themselves as "the only literary group which is positively post-war."[933] Despite having been too young to have seen combat, and that it had been over eleven years since the Armistice, their post-war stance demonstrates the war's far-reaching effects as well as a performative position in a desire to connect with those on the continent still living with visible and invisible scars. This would be *Experiment*'s final issue. They had expanded beyond the safety of the university campus but had been unable to sell enough copies to remain financially viable. Despite the failure of the journal, a cross-Channel path linking the British to the avant-garde ideas of France had been cleared. The bridge would continue to span with work on both sides culminating in the 1936 International Surrealist Exhibition, with Trevelyan, Sykes Davies and Jennings figuring prominently as either participants, organisers or both.

On the French side of the Channel, the *Transatlantic Review* ran from January until December 1924; Remy claims the journal was instrumental in the passage of the movement from France to Britain, despite its sole mention of Surrealism.[934] This likely was in one of its final issues, given that Breton published his manifesto – marking the birth of the movement – in mid-October of that year. Its importance, however, lies more in the featuring of many members of the movement. "The magazine was bilingual, edited […] by Ford Madox Ford […]; the Paris correspondent was the former Dadaist Philippe Soupault, André Breton's companion in the first hours of Surrealism."[935] Other contributors and artists included Baron, Crevel, Tzara, Brâncuși, Picasso, Aragon, Éluard and Breton.[936] Low readership was the cause of its failure, and only 150 of the 1500 copies were sold in England. Despite this, it nevertheless points to the very first arrivals of these names and ideas on the shores of Albion.

---

[932] Harding, "'Experiment' in Cambridge," 294.
[933] Harding, 295.
[934] Remy, *Surrealism in Britain*, 29.

Eugène Jolas' *transition* soon occupied the void left by the *Transatlantic Review*. Jolas, "an Alsace-Lorrainian, trilingual, French-American journalist-poet,"[937] covered the 1924 territorial dispute between Goll and Breton in the Paris edition of the *Chicago Tribune* discussed earlier.[938] His journal, in its Surrealist-adjacent desire for intellectual subversion running between 1927 and 1938, bridged francophone and anglophone avant-garde, paralleling the Surrealists in his "idea of a savage eye and mind," and also publishing translations of twenty-four Surrealist poems, the screenplay of *The Seashell and the Clergyman* and several texts by Breton, including his portrait by Man Ray and extracts from *Mad Love* and *Nadja*.[939] *transition* also featured contributions by many of the writers who contributed to *Surréalisme*, including Goll himself.[940] Carl Einstein, who was discussed in depth earlier for his work on Cubism in *Documents*, contributed a poem titled "Design of a Landscape."[941] It featured Man Ray's *Emak Bakia* and *L'Étoile* several times in its issues as well.[942]

The next publication to link continental Surrealism to Britain was *This Quarter*. Running from 1925 until 1932, Edward W. Titus was at the helm from 1929 until its last number. Published in Paris, it was widely distributed in Britain.[943] "Notably, under [Titus'] direction, *This Quarter* devoted an issue to Surrealism in 1932, guest edited by André Breton, which included the first publication of Marcel Duchamp's notes about his monumental artwork *The Bride Stripped Bare by her Bachelors, Even (The Large Glass)*."[944] Other contributions included works by Ernst, Tanguy, Man Ray, de Chirico, Éluard, Tzara; writings by Péret and the screenplay of *Un Chien andalou*.[945] This presentation of Surrealism "which thus appeared for the first time as a constituted force, an organized movement," and in the "preamble, 'Surrealism Yesterday, Today and Tomorrow,' Breton salutes the English ancestors of Surrealism – Young, Radcliffe ('Surrealist in landscape'), Swift ('Surrealist in malice'), Monk Lewis ('Surrealist in beauty of evil'), Maturin ('Surrealist in despair'), Lewis Carroll ('Surrealist in nonsense') – thus redefining and deepening the perspective of the movement."[946] *This Quarter* only had one number after Breton's, and due to financial strain, Titus ended the magazine's activity at the end of 1932.[947] It was nevertheless a significant envoy of continental Surrealism for the English-speaking avant-garde.

---

[935] Remy, 29.

[936] Remy, 29.

[937] Cathryn Setz, *Primordial Modernism: Animals, Ideas, Transition (1927-1938)* (Edinburgh: Edinburgh University Press, 2019), 2-3.

[938] Pages from Yale, E. and M. Jolas papers (box 67, folder 1579, Subgroup Series I, Chicago Tribune Paris, Sunday Aug 31, 1924) – Provided by Douglas Cushing from UT Austin

[939] Despite the display of support, there were numerous aspects which would keep Jolas eternally distanced from Surrealism, including theological abstraction and a lack of political position. Remy, *Surrealism in Britain,* 30. Remy describes him as only an American expatriate, which belies his multi-lingual and multi-cultural background. It also explains why he followed the Goll-Breton affair, given their shared linguistic and geographic backgrounds. Unfortunately, Setz and Remy diverge in opinion on the anglophones reading *transition*, with the former speaking of its "primarily American readership" and Remy's claim that it "built a strong cultural bridge between France and Britain." Setz, *Primordial Modernism,* 3; Remy, *Surrealism in Britain,* 30. Given the rigorous scholarship and methodology, I am inclined to favour Setz's position, though the truth is likely to be someplace in between these two. [Portrait of Breton] *transition*, np (p. 192 +1).

[940] Yvan Goll, "A Caravan of Longings," trans. Madeleine Reid, *transition* 7 (October 1927): 136.

[941] Carl Einstein, "Design of a Landscape," *transition* 19-20 (June 1930): 212-217.

[942] Aurouet, L'Etoile de mer*,* 9. *L'Étoile* in June 1928 with film stills and again in February 1929 in a discussion on French avant-garde and non-avant-garde cinema. The stills were unidentified and only attributed to Man Ray, with no other context. *transition*, issue 13, June 1928, np (p. 58 +1). Jean-George Auriol, "Whither the French Cinema," *transition* 15 (February 1929): 262.

All three periodicals were available at Anton Zwemmer's London bookshop, which served as a lightning rod for those interested in avant-garde ideas from the continent; already a mounting swell of interest in Surrealism was emerging.[948] However, not all Modernists appreciated the movement, with T.S. Eliot publishing critical articles in *Criterion* as one prominent example of the backlash.[949] The first Surrealist poem written in English was published in October 1933 by the seventeen year-old Gascoyne, which is described as being "rife with beautiful and sinister disquiet," and while Fraser attributes the references to *Un Chien andalou*, I see the "white curtains of tortured destinies," ocular violence, ruined cathedrals, milk, genitals, excrement, virgins, eggshells, churches and unfrocked priests pointing directly to Bataille.[950] Fraser credits Gascoyne's recent purchase of the fourth issue of *Surréalisme au service de la révolution* from Zwemmer which included the screenplay of Buñuel and Dalí's film as the source of inspiration.[951] There is no trace of the Spanish filmmakers in that issue.[952] If it is related to only the film and not Bataille, his source inspiration was likely to have been the special issue of *This Quarter* edited by Breton, but there is overwhelming evidence linking Bataille as well. Two months later, Charles Madge's "Surrealism for the English" appeared in the same publication as Gascoyne's Surrealist poem, Geoffrey Grigson's *New Verse*.[953] It was "the first thoroughgoing article on the specificity of English Surrealism. Ruling out mere imitation of Parisian Surrealism, Madge asserted that close analysis was compatible with British perspective that could be developed from French standpoints."[954] This points to a nascent indigenous Surrealism in the British Isles.

---

[943] Remy, *Surrealism in Britain,* 31. Trevor Stark, "Titus, Edward W.," Index of Historic Collectors and Dealers of Cubism, Leonard A. Lauder Research Center for Modern Art, Metropolitan Museum of Art, accessed July 8, 2021, https://www.metmuseum.org/art/libraries-and-research-centers/leonard-lauder-research-center/research/index-of-cubist-art-collectors/titus.

[944] Trevor Stark, "Titus, Edward W."

[945] "Edited and published by Edward W. Titus | This Quarter, vol. V, no. 1 | The Metropolitan Museum of Art," accessed July 8, 2021, https://www.metmuseum.org/art/collection/search/357905; Remy, *Surrealism in Britain,* 31.

[946] Remy, *Surrealism in Britain,* 31. These are Breton's ready-made English Surrealists.

[947] As well as the bookshop and press he ran. Trevor Stark, "Titus, Edward W.;" "This Quarter," Index of Modernist Magazines, accessed July 8, 2021, https://modernistmagazines.org/european/this-quarter/#1464124281502-9e535a72-b35327f2-9705.

[948] Remy, *Surrealism in Britain,* 31.

[949] Remy, 31.

Another facet of the bridge linking British Surrealism to the continent was film. The London Film Society was formed in December 1925, allowing for the bypassing of censorship laws to show films from the French avant-garde, including *Etoile de mer* and *The Seashell and the Clergyman* which had been previously dismissed by the sensors as '"so cryptic that it is meaningless and even if it had sense, it would have been rejected."'[955] An opportunity presented itself in the economic downturn of the early 1930s when Hollywood lessened its grip on British cinema, resulting in experimentation as well as the establishment of the British Film Institute and the General Post Office Film Unit (GPO) in 1933.[956] Documentary films emerged as a dominant genre, and GPO's Alberto Cavalcanti's knowledge of soundtracks added the element when it was still in its infancy.[957] "The starting point here was John Grierson's film *Drifters* (1929), whose formidable success was due to its technique, marked by quick editing and a vast symphonic structure, owed much to Soviet cinema, especially in its use to achieve social comment."[958] Also, Jennings' 1939 short documentary *Spare Time* was a warm, poetic – and slightly idiosyncratic – display of the British working class during moments of leisure; it was but one of many films he made between 1934 and 1939 for the GPO "where he was able to experiment with the new colour processes Gasparcolor and Dufaycolor" under Grierson's and later Cavalcanti's leadership.[959] Len Lye (1901-1980) – for *Rainbow Dance* (1936) – and Painlevé – for *Blue Beard* (1938) – both employed Gasparcolor as well.[960] Jennings would continue working with the GPO while also embarking on the domestic anthropological project Mass-Observation and remaining active with the Surrealist group, exhibiting in 1936 and publishing in the *London Bulletin*.[961] Other contributors associated with Surrealism and the GPO include Milhaud, who had composed for Painlevé, and Lye, whose abstract colour films were used for purposes such as advertising new parcel rates in *A Colour Box* (1935).[962]

---

[950] Remy, *Surrealism in Britain,* 32. [Quoted from David Gascoyne, "And the Seventh Dream is the Dream of Isis," *New Verse* 5 (October 1933): 157-158.]; Robert Fraser, *Night Thoughts: The Surreal Life of the Poet David Gascoyne* (New York: Oxford University Press, 2012)*,* 96.

[951] Fraser, *Night Thoughts,* 96.

[952] *Le Surréalisme au service de la révolution*, n°4, July 1930.

[953] Remy, *Surrealism in Britain,* 32. Grigson was also Moore's biographer and was the first to use the term biomorphism in the context of art criticism. Juler, *Grown but Not Made*, 1.

[954] Remy, *Surrealism in Britain,* 32.

[955] Other films included *A Quoi rêvent les jeunes filles ?*, *Entr'acte* and *Ballet mécanique.* Remy, *Surrealism in Britain,* 32-33, "Henri Chomette's film was actually the very first film shown by the London Film Society, on 20 December 1925. The comment on Dulac and Artaud's film comes from the *Film Society Programme* on 16 March 1930. Two film magazines supported avant-garde and Surrealist cinema: *Close-Up* (I, 1 July 1927 – III, 4, summer 1935) printed declarations by Man Ray, Buñuel and Len Lye, and *Film Art* (I, Spring 1933-9, Autumn 1936)." Remy, *Surrealism in Britain,* 346n18.

[956] Remy, *Surrealism in Britain,* 33.

Continental Surrealism made its "first significant" appearance in London in April 1933 in an exhibition at the Mayor Gallery with works by Arp, Ernst, Picabia and Miró showed alongside future British Surrealists Moore and Nash.[963] Another solo show for Ernst's works followed in June, and while both events attracted negative press, Ernst's exhibition was extended for an additional fortnight due to the popularity amongst visitors.[964] Miró had a solo exhibition in July and received similar criticism. Zwemmer Gallery exhibited works by Dalí in 1934, receiving negative coverage from many, including Anthony Blunt.[965] At this time Nash was also rallying artists to join Unit One, which counted Read as a "staunch ally."[966] Though short-lived, it left a significant mark on the British art scene in its progressive stance. Altogether, these events undeniably marked another paving stone in the path leading to Britain's International Surrealist Exhibition.

---

[957] Parker, Peter. "GPO Film Unit (act. 1933–1939)." *Oxford Dictionary of National Biography*, accessed 9 Jul. 2021. https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-105463.

[958] Grierson and Painlevé met at least once, when Painlevé was a guest on the BBC Television programme "Science and Films" alongside John Maddison and Professor Otto Storch on October 4, 1948, as a delegate for the Scientific Film Congress being held in London, and Painlevé's films may have been shown on this occasion. "Broadcast – BBC Programme Index," https://genome.ch.bbc.co.uk/3dd8505d306442358a68c985c356e307 Madison was Vice President and Painlevé was President of the International Association of Science Films, part of the ICS. Berg, "Contradictory Forces," 36; Remy, *Surrealism in Britain,* 33.

[959] Jackson, Kevin. "Jennings, (Frank) Humphrey Sinkler (1907–1950), film-maker, painter, and writer." *Oxford Dictionary of National Biography*, accessed 9 Jul. 2021. https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-37600; Parker, Peter. "GPO Film Unit (act. 1933–1939)."

[960] Luke Smythe, "Len Lye: The Vital Body of Cinema," *October* 144 (2013): 85. *Blue Beard* took three years to produce. Berg, "Contradictory Forces," 20.

[961] Jackson, Kevin. "Jennings, (Frank) Humphrey Sinkler (1907–1950)."

[962] Parker, Peter. "GPO Film Unit (act. 1933–1939)."

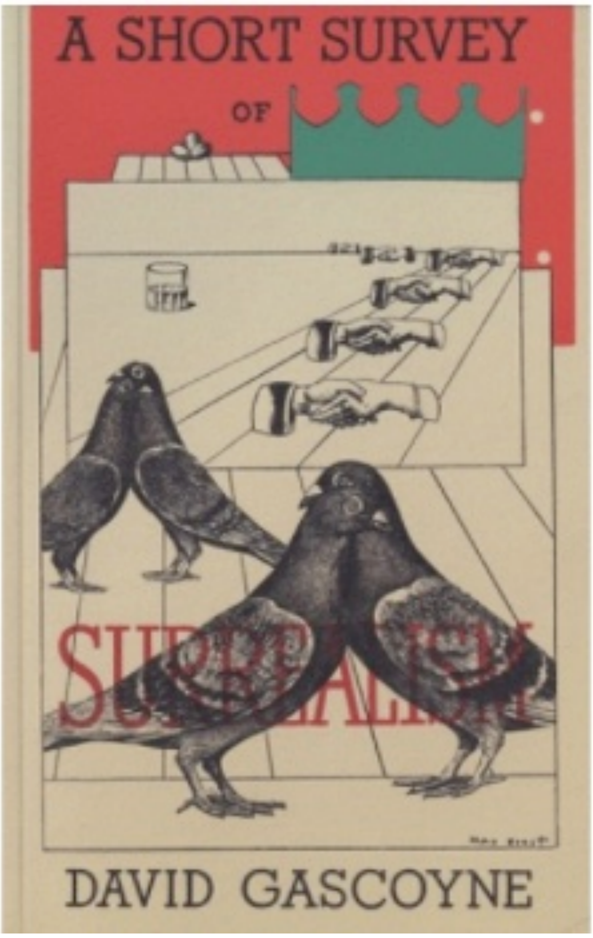
[963] Remy, *Surrealism in Britain,* 33.

[964] Remy, 33-34.

Coinciding with his poem's publication, Gascoyne left for Paris where he met Éluard, Hayter and Breton during his three-month sojourn.[967] Though he had had a strong affinity for Surrealism prior to meeting anyone in Paris, this stay would mark the beginning of his place amongst those who would soon establish the movement in Britain. He wrote the *First Manifesto of English Surrealism* while in London in May 1935, publishing in *Cahiers d'art* in French.[968] This was a clear message to the continental Surrealists of an incoming phenomenon. His book *A Short Survey of Surrealism* was written later that year following another visit to Paris.[969] (Fig. 3.41) It served as an introductory text for the anglophone public as "a chronological summary of the main phases of Surrealism in France."[970] It also included translations of texts and reproductions of works from all the major actors of the movement over the previous eleven years, including Arp, de Chirico, Dalí, Ernst, Giacometti, Magritte, Miró, Man Ray, Picasso, Tanguy and Valentine Hugo as well as stills from *Un Chien andalou*.[971] "It was the first collection of statutory Surrealist texts, published with the aim of proving their indissociable unity."[972] Most importantly, the text closed with the idea of Surrealism soon thriving in Britain.[973]

---

[965] Blunt had also been at the Cambridge magazine *The Venture*, a rival of *Experiment*. This likely explains his distaste for Surrealism. Harding, "'Experiment' in Cambridge," 296; Remy, *Surrealism in Britain,* 34.
[966] Remy, *Surrealism in Britain,* 37.
[967] Marcus Williamson, "David Gascoyne," in *The International Encyclopedia of Surrealism*, vol. 2, ed. Michael Richardson (London: Bloomsbury, 2019), 315.
[968] Remy, *Surrealism in Britain,* 71.
[969] Remy, 63.
[970] Remy, 71.
[971] Remy, 71.
[972] Remy, 71.
[973] Remy, 73.



Fix. 3.41, Max Ernst, Cover of David Gascoyne's *A Short Survey of Surrealism*, 1935.

Roland Penrose (1900-1984), who had been a part of the Parisian Surrealist movement since its birth, was instrumental in importing Surrealism to England. "The inspiration for the International Surrealist Exhibition of 1936 arose from a chance meeting between Roland Penrose and David Gascoyne, who were visiting Paris independently," and decided to move forward once home.[974] Breton and Éluard headed everything, coupled with an organizing committee established by Penrose and Read and Gascoyne's arrival coinciding with the committee's fourth out of eight total meetings.[975] Remy, with a detailed account of dates, names and addresses outlines the preparatory work executed in the weeks leading up to the exhibition. This included sponsors, sources such as the London Film Society for its cinematic holdings and collectors of ethnological objects for the display, articles and ideas for publicity stunts to attract attention.[976]

---

[974] Williamson, "David Gascoyne," 316.

[975] Note that given that there had been previous International Surrealist Exhibitions in Prague, Tenerife and Brussels, the idea to hold a fourth exhibition in London was a logical continuation of the series already under way. Remy, *Surrealism in Britain,* 73-74.

[976] Remy*,* 74.

To ensure that the exhibition remained true to its international moniker, "contact was made with Georges Hugnet, Paul Éluard and André Breton in France, E.L.T Mesens in Belgium and Bjerke-Petersen in Denmark, so as to get works from other countries."[977] In all, between June 11 and July 4 there were 23,000 visitors; 69 artists from 14 nationalities represented; 360 collages, paintings and sculptures; 30 African and Oceanian objects as well as found objects on display.[978] Breton led the opening ceremony, which boasted over two thousand attendees, which consisted of a mix of curious visitors, passers-by and other avant-garde inclined invitees.[979]

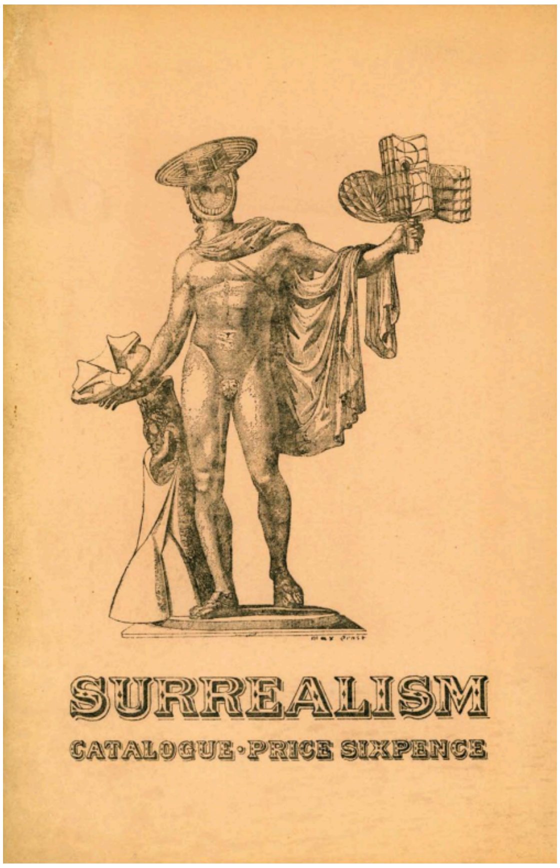


Fig. 3.42, Max Ernst, Cover, Catalogue for the International Surrealist Exhibition, London, 1936

The catalogue (Fig. 3.42) featured a preface by Breton, translated by Gascoyne, where the Surrealist movement is described as "the only one to be forearmed against the whims of idealist fantasy, the only one to have taken premeditated action, in art, against 'fideism.'"[980] This distinction relates to Marxism and eighteenth-century materialism, but Breton's return to rationalism and science underlines the break that he had already began to make from "pure psychic automatism." This is less reflected in Read's Introduction, indicating an ever-so-slight divergence, though both discuss the importance of British literary heritage. It also embodies the call of revolt of the movement, born from the contempt for the havoc wrought upon society after the Great War. "Do not judge this movement kindly. It is not just another amusing stunt. It is defiant – the desperate act of men too profoundly convinced of the rottenness of our civilization to want to save a shred of its respectability."[981] This outrage carried over nearly seventeen years after the war indicates the ongoing effects of World War I. However, as Whitworth indicated, there was still a strong interest in the unconscious that lingered among the British Surrealists, even if Breton had begun to move on.[982] The ending of Read's introductory essay discusses the "English Contribution," stating "Now that it has been revealed in all its range and irrationality, they may recover, shall we say, the courage of their instincts."[983] He sought to establish British Surrealism within a legacy of British literary giants in a natural succession of great minds.

---

[977] Remy, 74.
[978] Remy, 78. The *International Surrealist Bulletin* states that there were 390 works including paintings, sculpture, objects and drawings from 68 artists. *International Surrealist Bulletin No. 4*, September 1936, 1.
[979] *International Surrealist Bulletin No. 4*, September 1936, 7-8.

Returning momentarily to Breton and his shift towards rationalism, which he discussed in his 1934 Brussels lecture "What is Surrealism?" it evident that the British group remained in part attached to the *ir*rational, automatism and dreams, with Breton already begun moving forward to "a reasoning epoch."[984] This explains how Breton saw the importance of the sensorial experience as a means of creation in the catalogue's preface, claiming "Surrealist painters could not bring even the most apparently free of their creations to light were it not for the 'visual remains' of external perception."[985] He ended the preface with "Surrealist painting and construction of objects from now on permit the organization of perceptions of an objective tendency. This tendency causes these perceptions to present a profoundly disturbing and revolutionary character in that they imperiously call forth, from exterior reality, something to correspond to them."[986] The use of the senses to inform their work had been part of the Surrealist's toolbox since the beginning, but this ratification and evolution of Breton's theoretical framing of Surrealism, underlines a natural balancing. This displays less of a shift in the movement – with Breton's theory coming first and then Surrealists adapting to the idea – and more an alignment of the natural evolution of the movement where the theory was adapting to what was really happening within Surrealism. Though futile to discuss British Surrealism as if it only existed in the shadow of the continental movement, there are already indications of a mitosis-like division underway.

---

[980] A term defined in the text's lone footnote as a "doctrine substituting faith for science, or by extension, attributing a certain importance to faith." The International Surrealist Exhibition 1936 London Catalogue, 6.
[981] The International Surrealist Exhibition 1936 London Catalogue, 13.
[982] Whitworth, "The Angel of Anarchy," 18.
[983] The International Surrealist Exhibition 1936 London Catalogue, 13.
[984] Breton, "What is Surrealism?," 116. The catalogue features an advertisement for "What is Surrealism?" and states that it was "specially written for the occasion of the first International Surrealist Exhibition to be held in London." The International Surrealist Exhibition 1936 London Catalogue, 8.
[985] The International Surrealist Exhibition 1936 London Catalogue, 7.

The bridge was complete. The exhibition was successful in introducing Surrealism to a British audience, and it also brought forth a need for the British Surrealists to consider an identity separate from that of the continental version. There still was no formal British group, having left open both the list of potential local exhibitors beforehand and leaving the group to determine the tenets to which it would hold itself afterward. Remy states that on one side, Read and Sykes Davies sought to make Surrealism "acceptable" to the English tradition, and on the other side, Jennings and Madge wanted to avoid "reducing Surrealism to simple formulas and stresses its break from the past."[987] This is seen in their work following the event as it began to establish itself outside of its continental surrogate and become an equal alongside. After its end, elements of the exhibition continued to reverberate beyond the gallery's walls, including publications. The *International Surrealist Bulletin*, discussed in-depth below, and Read's edited volume, *Surrealism*, both appeared in September 1936, with the former serving as post-mortem summarised documentation of the event and the latter as an assessment of the movement in Britain to come.[988]

Surrealism was an attempted diplomatic gesture in its blending of continental Surrealism from Breton, Éluard and Hugnet alongside his own introduction – its "definitive manifesto" – and an essay by Sykes Davies.[989] Of the 96 artworks reproduced – providing visual examples of the artworks to accompany the essays – 64 had been displayed at the recent exhibition.[990] This provided a continuation along preestablished frameworks of reference leading from the exhibition to the book. The main topics – ideas from continental Surrealists, Read's consideration of Surrealism vis-à-vis the English Romantic and Victorian canon and Sykes Davies' position on "Surrealism at this Time and Place," likening Magritte's work to Wordsworth – aimed to provide a coherent first official touchpoint for British Surrealism by linking the movement to British intellectual and cultural history.

---

[986] The International Surrealist Exhibition 1936 London Catalogue, 8.

[987] Remy, *Surrealism in Britain,* 96-97.

[988] Remy, 97.

[989] Herbert Read, "Introduction," *Surrealism,* ed. Herbert Read (London: Faber, 1971[1936]), 20.

Jennings' response to Read's attempt at a definitive establishment of the British Surrealist movement displayed both his own position and his opposition to Read's definition of this new group.[991] In this, Jennings expressed a desire for a British Surrealism in revolt, as if seeking to reclaim a British Dada which never arrived. This rebuttal also echoes the disputes of Breton and Goll twelve years prior, but unlike then, it did not escalate, and "instead, much of its energy was soon to be directed elsewhere."[992] Many members of the British Surrealist group were politically engaged. Though inextricable from the discussion of the movement, notably in moments when Penrose and Gascoyne joined in the cause against fascism in Spain in fall 1936 and when they marched against Chamberlain on Mayday 1938, there is unfortunately no space here to discuss the importance of politics to the group, though much of the British Surrealist movement is marked by disputes and rifts between members.[993]

Despite these shifts, many exhibitions continued through the interwar years and beyond. Agar ascribed the disunity in the group to a lack of café culture, thereby depriving the group of having a common space upon which to flock.[994] "English artists are notoriously self-contained as a rule, and do not have either the desire or the opportunity to meet as often as they should."[995] This did not lend itself to cohesion, though in 1940

---

[990] This is a comparison between the plate titles and dates from the book and the exhibition catalogue's list of works displayed. Some titles differed due to translation and others names slightly differed, such as the 1936 "Untitled" (book, Plate 1) and "Object" (catalogue) from Agar, which were the same work as confirmed by Remy, iconographically and textually in Remy, *Dreaming Oneself Awake,* 77, 81.

[991] Humphrey Jennings, "Surrealism: Reviewed by Humphrey Jennings," *Contemporary Poetry and Prose* 8 (Dec 1936): 167.

[992] Remy, *Surrealism in Britain,* 99.

[993] Remy, 108-109, 161-163. Gascoyne made his departure in 1937 "after a profound personal crisis." Stabakis, "Britain," 20.

[994] Stabakis, "Britain," 19. Whitworth, "The Angel of Anarchy," 19.

[995] Agar, *A Look at My Life*, 146.

Mesens started organizing meetings at the Barcelona Restaurant, which alleviated this isolation.[996] These meetings eventually brought about calls for pledging fealty to the movement and not exhibiting or publishing outside of officially-sanctioned Surrealist outlets, which caused a stir. This was Mesens' attempt to become the Belgo-Anglican equivalent of the Pope of Surrealism, and it did not go over well. Many left at that moment, with others – including Agar – eventually coming back but refusing the Mesens' terms and conditions.[997] In this next section we examine Agar's place within this movement.

Agar's unwillingness to commit to Surrealist doctrine came from not wanting to abandon abstractionism. Despite this, Durozoi mistakenly claims that Agar was one of the British Surrealist artists who did not object to Mesens when he demanded, "allegiance to the proletariat, no cheating with other groups, and no publications or expos outside of the Surrealist brand."[998] According to Sherwin, Agar "insisted that it should be HER decision where she could exhibit her work, not E.L.T. Mesens'."[999] There seems to have been no animosity resulting from this, though. Mesens liked Agar *because* she was willing to challenge him. Agar recounts, "certainly I remember arguing with him. I recall one occasion when I got rather furious, but Mesens was delighted. 'At least Eileen contradicts me,' he said, 'she makes a controversy out of it!'"[1000] Like her personal life, Agar preferred an open relationship with the British group rather than a lifelong monogamous commitment.[1001] Agar's relationship to continental Surrealism was even more casual. It was well underway during her Parisian sojourn between 1928 and 1930, and she was aware of it during her time there, but she did not jump on the bandwagon. Her independent personality and focus on becoming an artist prevented her from rushing to join. Though Breton's reputation for considering women as better muses than artists surely played a role in her decision to not seek them out only to be cast aside and not be taken seriously as an artist. Also, there was their focus on automatism, a practice of no interest to Agar. She called it "impracticable" and felt "intuition combined with controlled emotion and intellectual consideration produce best efforts."[1002] The times in which she did attempt the practice were always proven fruitless, which may have been due to her materialist nature.

---

[996] Whitworth, "The Angel of Anarchy," 19.
[997] She returned but never agreed to the conditions of only exhibiting under the banner of Surrealism. Remy, *Surrealism in Britain,* 211. Whitworth, "The Angel of Anarchy," 24.
[998] Durozoi, *History of the Surrealist Movement,* trans. Alison Anderson (Chicago, IL: University of Chicago Press, 2004), 428.
[999] Sherwin, *British Surrealism Opened Up,* 36.
[1000] Agar, *A Look at My Life*, 146.
[1001] Agar, 121.

Agar's early presence as a British Surrealist and her arrival in the early days of an avant-garde literary and artistic movement allowed her to witness its infancy first-hand. Her numerous interwar exhibitions relating to the movement include "Fantastic Art, Dada and Surrealism;" "Surrealist Objects and Poems;" International Surrealist Exhibitions in Tokyo, Paris and Amsterdam; "Pictures on the Staircase;" "Living Art in England" and "British Surrealists and Abstract Paintings."[1003] This demonstrates her role as a significant contributor and group member. Regarding her place among fellow British Surrealists, her work stands out in its consistency in its attachment to the marine, like a barnacle fixed to a ship's hull. In comparison with fellow group members who created works with natural elements on occasion, such as John Piper's *Beach with Starfish* (c. 1933-34) as part of a series of beachscape collages, Agar's work was singular in its devotion to the natural world. Even compared to Nash – whose marine-themed works are compared most frequently to hers – he nevertheless painted many other subjects.[1004] This demonstrates the unparalleled focus in Agar's œuvre within the group.

Within British Modernism more broadly, Edward Wadsworth's (1889-1945) work is a close contender in his own work on the marine. A former Vorticist and dazzle ship decorator, his paintings reflect a strong consideration of the sea.[1005] (Fig. 3.43) Many of his paintings are rigidly structured de Chirico-inspired compositions of the shore or other nautical themes, though with additional non-faunal elements such as rope, anchors and instruments.[1006] Agar does not mention him in her memoir, but he had been a member of the London Group, Unit One and the group Abstraction-Création.[1007] At some point, despite his having declined participation in the 1936 exhibition, Agar and Wadsworth had encountered each other and knew of each other's work.[1008]

[1002] Agar, 125-126.
[1003] Remy, *Dreaming Oneself Awake*, 227.
[1004] Both out of choice and professional obligation, such as his time as a war painter.
[1005] Mark Glazebrook, "Wadsworth, Edward Alexander (1889–1949), painter and printmaker," Oxford Dictionary of National Biography, accessed July 10, 2021, https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-36674.
[1006] He had corresponded with G. de Chirico on painting. Richard Cork, "Wadsworth, Edward," *Grove Art Online*, accessed July 10, 2021, https://www-oxfordartonline-com.ezproxy.inha.fr:2443/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000090320; The sextant – a scopic navigational instrument invented in the eighteenth century – had also begun to be used for aeronautical navigation in the 1910s, expanding vision in the air and on the sea. "Sextant," *Britannica Academic,* accessed July 10, 2021, https://academic.eb.com/levels/collegiate/article/sextant/66995; "Brandis Sextant with Willson Bubble Telescope | Time and Navigation," Smithsonian Institute, accessed July 10, 2021. https://timeandnavigation.si.edu/multimedia-asset/brandis-sextant-with-willson-bubble-telescope

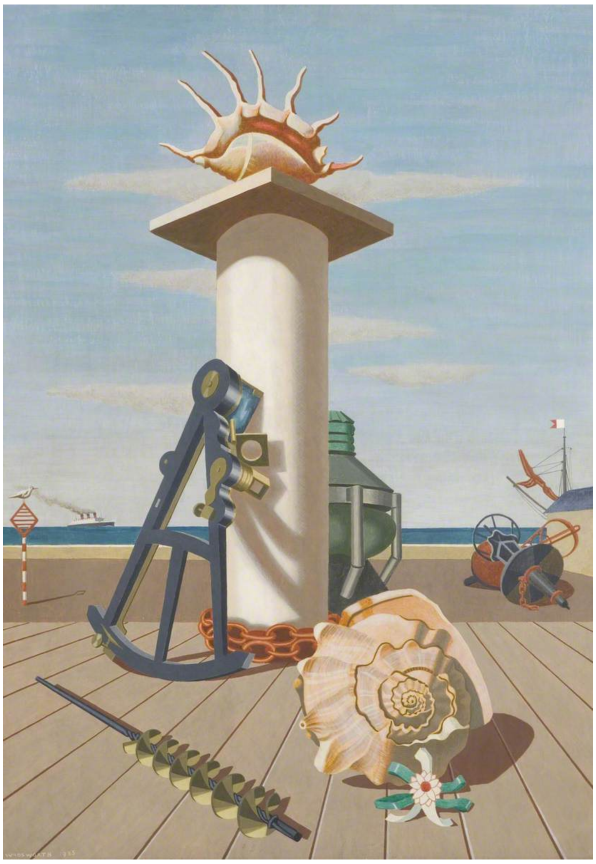


Fig. 3.43, Edward Wadsworth, *Offing*, 1935, tempera on panel, 88.9 x 63.5 cm, Bristol Museum & Art Gallery

As Remy discusses, one unifying aspect within British Surrealism is a neo-Romantic relationship with nature, and though he does not mention this, it relates to Read's vision of the movement. Found in writings and artworks, a celebration of the natural world is woven into the literary and artistic works for nearly all members of the group. They "all pay homage to the reciprocal influences of nature."[1009] Remy evokes the primitive state of vision espoused by Breton but perfected by the British Surrealists and others who used nature, claiming that the natural elements present "are stolen from where they apparently belong, to be invested with our ever-shifting, ever-desiring gaze and projected back to a primordial level."[1010] The connection to nature, the blurring of the human-animal boundary via devolution returns the eye to a purity of sight, where it loses its dominance over other modes of sensing.

[1007] Her indirect connection to Unit One was through Nash, who were both founding members and the Abstraction-Création through Foltýn. "Wadsworth, Edward Alexander," *Benezit Dictionary of Artists,* accessed July 10, 2021. https://www-oxfordartonline-com.ezproxy.inha.fr:2443/benezit/view/10.1093/benz/9780199773787.001.0001/acref-9780199773787-e-00193362; Campbell, "Eileen Agar at Home," 230.

[1008] "Edward Wadsworth, Semaphore, c. 1937-38 | Piano Nobile," Piano Nobile, accessed July 10, 2021. https://www.piano-nobile.com/artists/1018-edward-wadsworth/works/1054/

The British Surrealists' first major event was the International Surrealist Exhibition, introducing the movement to the British public. Like the previous three issues, the fourth issue of the *International Surrealist Bulletin* was dedicated to the peripatetic exhibition. A collaborative effort, it was jointly produced by the hosting Surrealist group supported by the French members. Published in Prague, Tenerife and Brussels between April 1935 and September 1936, these four revues documented the international aspect of the movement while remaining under the auspices of Breton's watchful eye. The fourth issue, published by Zwemmer, covers the exhibition as well as the supporting events, including images of several works displayed.[1011] The summaries and transcriptions preserve the temporary exhibition, and curiously, there are slight variations between the parallel English and French-language columns of text. While they do not contradict each other, there is a distinct independence between the two. The following section will be a discussion of the content of the revue, highlighting relevant elements.

Remy describes that in the bulletin, "it is the political, revolutionary dimension of the movement based on Marxism and psychoanalysis which is stressed more than the aesthetic one, together with the necessity of the collective action to combat individualism and unrestricted capitalism."[1012] During the exhibition, lectures in either English or French on varying topics were "delivered to large audiences."[1013] Naturally, Breton was the first to speak with his discourse on "Borderless Limits of Surrealism."[1014] The speech espoused the virtue of "the English gothic novel and its occultation of reason. The poet thus takes stock of a well identified but little explored legacy (Radcliffe, Walpole, Lewis); the conference then refers to Freud and William James, thus resuming the uninterrupted course of a reflection on knowledge."[1015]

[1009] Remy, *Surrealism in Britain,* 337.
[1010] Remy, 337.
[1011] Remy, 96.
[1012] Remy, 96.
[1013] *International Surrealist Bulletin No. 4*, September 1936, 2.
[1014] A similar version of his speech was given some time at Tenerife as well as Copenhagen – which had enjoyed their own International Surrealist Exhibitions the year prior. "Exposition internationale Kubisme-Surrealisme de Copenhague (André Breton), Association Atelier André Breton, accessed June 24, 2021,

Read spoke on "Art and the Unconscious" while "standing on a spring sofa."[1016] Though it is difficult to find a copy of his speech, Read was no stranger to this topic.[1017] After World War II, Read became entwined with the work of Neumann – discussed earlier for his work on "The Great Mother" – on art and the unconscious.[1018] This timeline serves as a testament to Read's commitment to the crossroads of these two topics, a crux in itself of Surrealism. In the bulletin, Read's talk on Surrealism's political position was described as naturally "Marxian Socialist."[1019] Indeed, Read acknowledges the influence of Marxist dialectical materialism stemming from Hegelian legacy. He maintained that Surrealism had never existed in a vacuum, how "art itself is not to be regarded as a reflection of one part of our mental experience – that part which we call 'conscious' – but is to be regarded as a synthesis of all aspects of our existence, even (indeed, especially) the most contradictory."[1020] He empirically compared the impossibility of the separation of art from society to the idea that the body works together, with its cells, muscles and appendages; their coordination allows for movement and basic processes to be executed, very much in alignment with the New Biology of this time. "The notion of an art, then, divorced from the general process of social development, is an illusion; and since the artist cannot escape the transformation of life which is always in progress"[1021] In Surrealist ideology, he claimed, the state of reality and the state of dreaming have mutated to create another realm ruled by the uncanny, the super real, the Surreal. As said in a quote from Breton,

---

https://www.andrebreton.fr/en/event/1030580. It was also published in *La Clé des champs*, a collection of Breton's writings between 1936 and 1952. The speech was published in English in Read's *Surrealism* and later published in French as "Limites non Frontières du Surréalisme" February 1, 1937 in issue 281 of *La Nouvelle revue française.*

[1015] "Ladies, gentlemen, why not admit it? I was feeling a peculiar anxiety," Association Atelier André Breton, accessed February 26, 2021. https://www.andrebreton.fr/en/work/56600100311330.

[1016] Remy, *Surrealism in Britain*, 77.

[1017] He had even published a review of a book with a similar title ten years prior in the *International Journal of Ethics*, *Art and the Unconscious: A Psychological Approach to a Problem in Philosophy* by John M. Thorburn. Read, "Art and the Unconscious," *International Journal of Ethics* 36, no. 3 (1926): 305-308.

[1018] "Tim Martin, 'Erich Neumann on Henry Moore: Public Sculpture and the Collective Unconscious,'" accessed February 26, 2021, https://www.tate.org.uk/art/research-publications/henry-moore/tim-martin-erich-neumann-on-henry-moore-public-sculpture-and-the-collective-unconscious-r1151316.

[1019] *International Surrealist Bulletin No. 4*, September 1936, 9.

[1020] *International Surrealist Bulletin No. 4*, 9.

[1021] *International Surrealist Bulletin No. 4*, 9-10.

'"we have attempted to present interior reality as two elements in process of unification, of finally becoming *one.* This final unification is the supreme aim of Surrealism."'[1022] For Surrealist artists, it is from this space that their work is created. Looking at the use of themes relating to the nautical world and the sea, the fusion of inner and outer realities becomes apparent, as "the specific purpose of art […] is the deepening of our sense of the total reality of existence, and, in a genetic sense, the further development of human consciousness."[1023] The underwater world, when viewed from below the surface, is uncanny, dreamlike and otherworldly, but is at the same time very much materially, empirically and existentially real. The imagery used here is the perfect media to represent these two realities – visually and artistically – as one.

The next day, Éluard spoke on Surrealist poetry, "La Poésie surréaliste." On June 26, Sykes Davies gave a speech whose title relates strongly to the topic of this thesis. Titled "Biology and Surrealism," extracts have been preserved from his lecture and will be discussed in greater detail below. Lastly, Dalí gave a lecture titled "Authentic Paranoid Phantoms." Remy describes the audience as having been "shocked" by the story of a philosophy student who, over the span of six months, ate an entire mirror wardrobe.[1024] However, it was not just the story which garnered attention. It was also Dalí's infamous moment in the diving suit.

Sykes Davies' lecture on Biology and Surrealism, "outlined recent psychoanalytical ideas about repression via endocrinological features of physical (and thus not solely psychical) structures."[1025] In the extract from the *Bulletin*, Sykes Davies begins by relating Surrealism's connection to Freud and his research on the misery of the human, "inherent in his physical and biological nature."[1026] Sykes Davies then takes this to draw a parallel between psychoanalysis and biology, using the biological dependence of a child on its parents and connecting it to "the source of a typical and characteristic human difficulty."[1027] He continues, addressing Freudian theory on human infants, their relationship to their parents, the ability to possess sexual feelings and the effects this has on adult sexuality. He connects childhood psychological repression and the adverse effects in adulthood, "causing illness and hysteria in the physical sense."[1028] He pointed out that it is possible that the unconscious mind "substitutes its own phantasies completely for normal reality, and there follows a condition of delusion and paranoia."[1029]

[1022] *International Surrealist Bulletin No. 4*, September 1936, 10. This quote as well as the whole paragraph from which it is taken are absent from the parallel French language version of the text located on the same page.
[1023] *International Surrealist Bulletin No. 4*, 10-11.
[1024] "Fantômes paranoïaques authentiques." Remy, *Surrealism in Britain*, 77.
[1025] Setz, *Primordial Modernism,* 27.
[1026] *International Surrealist Bulletin No. 4*, September 1936, 13.
[1027] *International Surrealist Bulletin No. 4*, 13.

The resume of his talk finally comes to the crux of his argument: physical manifestations of the effects dreams have on waking life cause suffering, distress and disrupt sleep. He concludes by stating, "Through all the means at our disposal, through painting, through poetry, or through our scientific researches, we are engaged in the exploration of the unconscious, in its conquest and final synthesis with the conscious – a synthesis by which the Surreal will become also the surrational."[1030] Once again, this idea of two worlds colliding and melding into one is approached as an essential element of Surrealism. Though the speech itself does not address with any real depth the relationship between the study of life and Surrealism, this empirical acknowledgement of a naturally occurring relationship between the two is important. It shows that the intellectual rigour was not reserved for thoughts only relating to Freud and the metaphysical, but also how this affected the body as a whole within the New Biology.

As promising as a talk on Surrealism and Biology from someone educated in Cantabrigian empiricist methodology appears, it does not reveal any more insight into the research topic of this thesis as it relates to the natural world or the marine. It does, however, relate to materialist science. Sykes Davies, the son of a clergyman and poet, had no formal knowledge of the biological sciences. However, it is noted that he spent a great deal of time with C. P. Snow, the man credited with the post-World War II theory of the two cultures, so the idea of art and science and their relationship was a subject not-too-uncommon. "Hugh spent many convivial hours with him, though he found Snow laborious in conversation…"[1031] Compounding this, was the influence of another friend he had around this time, Moore, though not a biologist himself, having been a primary school teacher before attending Leeds School of Art and later the Royal College of Art, he was known for his biomorphic sculptures.[1032]

[1028] *International Surrealist Bulletin No. 4*, 14.
[1029] *International Surrealist Bulletin No. 4*, 14.
[1030] *International Surrealist Bulletin No. 4*, 15.
[1031] George Watson, "Remembering Prufrock: Hugh Sykes Davies 1909-1984." *The Sewanee Review* 109, no. 4 (2001): 575.

The essay, as well as the bulletin itself, concludes with an appeal to make the private world public by taking these interior processes which are of great importance to the Surrealists and extricating them to fuse the interior with the exterior realities. The French version of the text features a quote that strongly supports this thesis' argument.

> As long as the physical construction of man remains what it is, so long will it need Surrealism. It will remain, therefore, as a vital movement, always in the making, until the end of human history. For if we fail to succeed in changing the physical nature of man in such a way that he escapes his present psychological condition, it will be the end of human history and the beginning of another history of another animal that may be better than man.[1033]

This conclusion resonates with the work by certain Surrealists who used sea creatures seeking to explore their capacities. This union allows for humans to go beyond and to become superior.

After the conclusion, there is discussion of largely negative press coverage of the exhibition. This demonstrates the disruptive effect that the Surrealist movement had on London. "A series of 'happenings' ensured that the exhibition received massive press coverage, and though it was treated more as a circus than an art show, attendances averaged 1,000 a day."[1034] This defensive retort explaining how the criticisms are unfounded, demonstrates that a nerve had been struck with the group, even though they had provoked it. The bulletin closes with the names of those who read and approved its publication, with Agar listed first.

In closing, Agar described Surrealism as "a fishy-figure phantom that lives in a looking-glass world, while dreaming of dead men's bones. It is the holy emanation of an explosive and creative capacity brooding over this shrinking and destructive world."[1035] Her relationship with the movement was ambivalent at times, desiring to maintain a connection with Abstractionism, though never formally connected to any abstract group. Agar said, "Abstract art and Surrealism were the two movements that interested me most, and I see nothing incompatible in that, indeed we all walk on two legs, and for me, one is Abstract, the other Surreal – it is point and counterpoint. Surrealism for me draws its inspiration from nature."[1036] This Gollian approach to Surrealism as rooted in nature is indicative of the stream flowing alongside Breton's version. As seen in her sculptures, paintings and collages, her use of natural imagery is sublimated into works that allow the marine fauna to fuse with the viewer.

[1032] Watson, "Remembering Prufrock," 575. Alan Wilkinson, "Moore, Henry Spencer (1898-1986), sculptor," *Oxford Dictionary of National Biography,* accessed March 4, 2021, https://www-oxforddnb-com.ezproxy01.rhul.ac.uk/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-39962

[1033] *International Surrealist Bulletin No. 4*, September 1936, 15. (My translation.)

[1034] Whitworth, "The Angel of Anarchy," 21.

[1035] In her opening speech at the Courtauld for the '1936 Surrealist Exhibition' afternoon TGA 8712/6/8. Letters to EA from Sarah Wilson, Courtauld (1/8) Thanking EA for her presence at their "'1936 Surrealist Exhibition' afternoon." Dated 29 May 1984.

This use challenged the primacy of vision. Her creatures, which evolutionarily predate humans and rely on non-retinal capacities to navigate their environment, bring into question the primacy of the human. As a Surrealist, however tentative, this focus on the marine highlights an engagement in materialist science, as opposed to only an interest in metaphysics and psychoanalysis. Indicated by her archives, artworks and autobiography, Agar was actively connected to the natural world, particularly with the biological sciences. Her rebellious nature manifested itself in a desire to seek out new worlds and to gather knowledge. Starved for culture as a child, she sought out books and was thrilled to discover art and literature through her tutors. Her parents' plans for her included motherhood, wifedom and the life of a socialite, and they saw no reason to encourage their daughter to accomplish anything more than finishing school. She chose to go beyond this pre-scripted life. Her love of the natural world and specifically marine life is shown in almost all her work, ranging from sculptures to photographs to collages and paintings. It points to both Agar's and Surrealism's desire to explore the new scientific innovations and adopt the means of perception that were being expanded upon by technological advances in the post-World War I world.

Like the prongs of Neptune's trident, art, biology and nature within Agar's œuvre all point to an engagement with materialist science. Among the myriad works in which the marine is used to reflect her inner workings, *Ceremonial Hat*, *Marine Collage* and the items highlighted in her archives encapsulate this triad. In addition to the biological and artificial elements which adorned the hat and were accorded periscopic vision, there is the reference to seafood and its upside-down basket container, adding in a gender subversive element to the work. This wearable sculpture underwent its own evolution parallel to Agar's lifetime and saw an ebb and flow of barnacle-like encrustations attach and detach over the years. Her natural approach to embracing this change as if it were a living, breathing organism attests to the purposeful quality of her relationship with the hat as well as to the empirical knowledge of sea life.

[1036] Agar, *A Look at My Life*, 121.

Agar successfully distinguished herself from the others in the breadth and scope of works which featured creatures of the sea. She demonstrated how they could allow the human to go beyond its typical capacities and to form a union, thus blurring the human-animal boundary and challenging anthropocentrism. Their own sensorial capacities demonstrate – via this unification – an ability to go beyond normal human vision. Moreover, her life and work as an artist are a display of a challenge to typical gender roles and norms. Specifically, her sculptural hat, a collection of human anatomical slides and a collage where marine and other biological organisms are present. These works point to irrefutable proof of Agar's engagement with materialist science. Furthermore, Agar's frequent visits to natural history museums point to an active engagement with popular science. It suggests that alongside the themes of metaphysics and psychoanalysis, there is a heretofore underexamined area of Surrealism where the interest in materialist science is represented in work by artists who included sea creatures in their work.

Her letters, writings, books, photographs and other personal effects were related to the triad as well. Nothing in the collection was so categorically emblematic of this link more than the glass lantern slides. What made them special is their context within the possessions of one of the most prolific British Surrealist artists and the fact that they had been selected as part of an acquisition for her archives. Agar's donation, arranged shortly before her death but stipulated not to arrive at the museum until posthumously, was an intentional message to future scholars and communicates the most important elements of her career.

There is still much to explore regarding research focusing on the art of Agar and her place within British Surrealism and Surrealism as a whole. The understated nature of these subjects has provided an opening to explore a side of popular science and art in a new way to consider the implications that materialist science may have had on British Surrealism. By taking a critical look at Agar's place in this movement this demonstrates a questioning of hierarchies, whether related to vision, human primacy or gender roles. The artworks and items from Agar's archives show an artist who was adept at blending art and science. Despite having received an education typical of a young lady from a wealthy family, and therefore un-scientific in nature, Agar possessed knowledge of biology, nature and human anatomy. Agar's engagement with the life sciences unveils another facet of Surrealism, which demonstrates and adds to the complexity of this movement. Aside from a neo-Romantic attachment to nature, there was little coherence within the British group. Some were interested in automatism and psychology, some in the occult, some in politics and some who dabbled here and there in a bit of everything, including quantum physics. To study and acknowledge Agar and the other artists who were engaged with the study of life and used it in their art contributes to our understanding of Surrealism and its place within the canon of the history of art.

Epilogue

Here I wish to reflect on the marine in the Surreal as well as a summary of my findings before closing with ideas for areas of further inquiry. I will begin with an overview of the chapters and then discuss the interrelated themes and sub-themes as a way of synthesising my argument. Then I will explore the gaps which I had aimed to fill with this research, the contribution that I hope to have made and then possible questions to be explored for further research.

[Overview of Points Discussed]

This section provides a summary of the topics explored in each chapter as a way of preparing the terrain for the synthesis which follows. Here I paint with broad brushstrokes to lay out the main points and how they weave together to provide a view on the marine Surreal in its service to subversion.

[Introduction]

The introduction laid out the effects that scientific and technological advances relating to the Great War affected the senses both positively and negatively. Following the war – and relating to these innovations – there were societal shifts which reflected opportunities to question paradigmatic structures including the primacy of vision, traditional gender roles and anthropocentrism. This is where I outlined my plan to examine works of art by Surrealist artists which featured sea creatures, with each chapter dedicated to a work or an artist accompanied by a publication as a framework for discussing examples of materialism as well as the subversion of the three hierarchical structures which I described as the four (pneumatic) pillars of inquiry.

[Chapter 1 – Man Ray and Robert Desnos]

In the first chapter, there was an overview of the history of vision in western culture as well as a reframing of Jay's argument in which I position the Surrealist artists he lists outside of his label of anti-ocular and present them as anti-ocularcentristic, meaning that they are seeking to subvert vision's dominance amongst the senses while still playing with it. I use this to argue that the instances of ocular violence he references – from *Story of the Eye* and *Un Chien andalou* – are symbolic and not literal. Considering the use of sea creatures in Surrealism demonstrates a desire to explore modes of sensing which are not typically accorded to the human as well as a challenge to gender norms and anthropocentrism. I also present the materialist nature of a great number of Surrealist works which contradicts the myth of the metaphysical as a main aspect of Surrealism. I then applied this argument to Man Ray and Desnos' *L'Étoile de mer* as well as Bataille's essay "The Language of Flowers" in a discussion of the four pillars of inquiry.

[Chapter 2 – Jean Painlevé]

The next chapter opened with a discussion of the foundational aspects of Surrealism surround the time of its inception. I outlined a feud between Breton and Goll, who attempted a *coup de surréalisme*, which led to the publication of a single-issue revue – *Surréalisme* – which was filled with materialist writing, veering into the scientific with Painlevé's piece "neo-zoological drama." Three films from Painlevé's interwar cinematic œuvre – *The Sea Urchins, The Octopus* and *The Seahorse* – were reviewed for their qualities relating to the pillars of inquiry as well as for Painlevé's scientific and visionary merit in pioneering underwater cinematic research.

[Chapter 3 – Eileen Agar]

Lastly, three elements from Agar's œuvre were examined for their relation to the pillars of inquiry. *The Ceremonial Hat for Eating Bouillabaisse*'s evolution was traced across nearly the entirety of the twentieth century and was appreciated for its sartorial aspect as much as its scientific. Then *Marine Collage* was dissected, with nearly all elements traced to pioneering undersea explorers from the eighteenth and twentieth centuries. The third element of Agar's œuvre examined was her archival bequest at Tate Archives in which small marine sculptures and anatomical glass plate negatives are conserved amongst her thoughts on art and science. Lastly, the *International Surrealist Bulletin* was examined as it related to the birth of British Surrealism and how its Cantabrigian roots anchor it in empiricism in addition to the highlighted materialist examples in the revue's discussion.

[Synthesis]

My aim has been to demonstrate the parallel current of materialism in Surrealism has been present since the movement's inception. Throughout these chapters, the question of sensory perception was examined from different angles in relation to war, western culture, humans, sea creatures, on land, in the air, underwater and more. And while my argument may have originated as semantics, with what Jay calls anti-ocular, I say is anti-ocularcentristic, this brought a whole world to explore when viewing it through the lens of marine fauna. As Donna Haraway claimed, "We polish an animal mirror to look for ourselves."[1037] Redefining this as subverting/challenging/playing with the human eye's dominance and then adding in the extra element of sensory modes from these creatures gives us a chance to better understand the context in which these artists, writers and poets were working in the interbellum. In addition to the findings I have already discussed, I have come across a few other realisations and unifying characteristics of my research that I wish to discuss outside of the individual chapters that nevertheless require the previous chapters' context to be analysed.

Despite the many scholarly accounts of sudden changes, there was no true abrupt shift to modernity caused by the war. It did not so much spawn anything but rather compressed and accelerated the time scale of a technological and cultural modernisation already underway. Many (but certainly not all) of these innovations were inevitable, and the war simply a catalyst in the same way an ongoing chemical reaction's rate increases with temperature. The conflict was the heat necessary to push western culture out of the nineteenth century and into the twentieth. The war's resulting régime changes, traumas as well as the protracted mourning and *le retour à l'ordre*, however, did leave a pronounced impression and figure into the stark difference of a before-and-after effect. I argue that the intangible quality of many of these changes resulted in some within the avant-garde to embrace empiricism and materialism to be able to grasp concrete notions during this time.

Furthermore, the Surrealists who subverted the paradigmatic structures discussed in this thesis were also those who refused Breton's – and Mesen's – hierarchical rank-and-file within the movement. Though perhaps not all had attracted the ire nor the fist of Breton like Bataille and Goll, none of the artists highlighted here were lifelong members of Breton's inner circle. Even Apollinaire was not spared from papal criticism.[1038] Therefore, I do not think that it is pure coincidence that these same artists, writers and poets who were outside of Breton's purview were also challenging larger hierarchies beyond avant-garde circles.

[1037] Donna J. Haraway, "The Past is a Contested Zone: Human Nature and Theories of Production and Reproduction of Primate Behavior Studies," in *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991), 21.

Another aspect which emerged amongst the Surrealists discussed was the image-text paradigm. This was a way for Surrealists to play with the eye and use vision to fold onto itself. This plays into another theme I found relating to the excavation of the truth beneath the surface within Surrealism. This was achieved in different ways, some by manipulating filmic images using physical and chemical processes or technological manoeuvring. Painlevé best realised this by going beneath the ocean's surface to reveal the marine. Others achieved this by leaving traces of a secret love affair with science in their archives, which Eburne describes as "a repository of historical truth," thus confirming that Agar was indeed actively engaged in materialist science.[1039]

These archival holdings lead us to the glass-plate anatomical slides which had been left as-is and used for collage, which I described as ready-mades. This theme is seen again in her beachcombing and collages, Breton's historical members – like Sade – of Surrealism, Painlevé's methodological yielding to oceanic providence to determine his actors as well as the preserved starfish that Desnos purchased in a shop in the Marais that leads him to write a poem which is subsequently "picked up" by Man Ray and metamorphosed into a film. Lastly, I would like to also draw attention to the interrelated aspect of these works. Almost all of them tie into one another in various ways, whether it be through topics of *l'acéphale*, working with Boiffard or Lotar, exhibiting together, using Gasparcolor or group holidays with Picasso on the côte d'Azur.

[1038] Campa, "Dans la nuit des éclairs," 22.

[1039] Jonathan Eburne, "Surrealism and the Archive," "Breton's Wall, Carrington's Kitchen: Surrealism and the Archive." *Intermédialités / Intermediality* 18 (Autumn 2011): 18.

[Areas of Further Inquiry]

There are myriad directions that this work could have travelled. I never expected to find so many instances which supported my argument, which was incredibly encouraging and also meant that the scope of inquiry had to be limited almost right away in terms of chronology, geography, artists, artworks as well as how deeply to delve into the scientific aspects of these creatures – and which ones to study – and more.

When this thesis continues as a monographic and/or post-doctoral project, there are elements which I would like to pursue to enrich the argument, which were unable to fit due to limits on time and word count. One important element which I intend to explore further is primary source material in the form of popular science journals. This was discussed briefly regarding Agar's collage, but perhaps finding more links between avant-garde artists' work and publications or recent discoveries would give even more insight into their individual relationships with materialist science. Painlevé would be the exception to this, naturally, and so an equivalent avenue of inquiry would relate the technological advances of both underwater filming as well as diving equipment to the films. I would also like to see if he had made any additional discoveries himself and what that impact was. Shortly before the pandemic I had been awarded a generous grant to go to the biological research centre's archives in Brittany where Painlevé had worked. For his Parisian archives, very precise questions were necessary due to lack of inventory, which would lead me next time to ask more pointed questions about his research regarding discoveries and hypotheses. If he did indeed make three versions of his films, then seeing his other films meant for more specialised audiences would be necessary. However, it is noted that many of his films were lost during German occupation during World War II.[1040]

In the physiological elements referenced with regard to each of the creatures discussed in this thesis, I referred to modern-day scientific resources. For the sake of consistency, between species and research in England and in France without knowing how collaborative or communicative the researchers were, it was best to discuss their sensorial traits as we know them today. However, it would be incredibly interesting to know what the state of research was on the animals discussed, if there was an international consensus and also whether these findings were kept within the scientific community or published for general audiences as well. Also, when was the first time these creatures were filmed? In what country? Perhaps not in an effort to establish who-did-what first but in a way of knowing more about documentary film on marine subjects. Lastly, extending a line of inquiry of Surrealist and Surrealism-inspired works through to modern day would be interesting to demonstrate the continuation of the legacy of ocular fixation that I traced through Jay up until the interwar period, but that is seen also in works by David Lynch, for example.

[1040] Pierre Thévenard, *Le Cinéma scientifique français. Préface de Jean Painlevé* (Paris: La Jeune Parque, 1948), 97.

[Conclusion to the Epilogue]

This study's aim has been to highlight the marine within the study of Surrealism. Ideally, this work will serve to help add to the narrative of Surrealism as it is taught and researched, at least in part by taking the focus off the metaphysicality, the oneiric Freudian theory and the trope of anti-ocularity. In its place I seek to impart an ongoing discourse of the aspects within Surrealism which praise that which is concrete, rooted in material reality, and looking to restructure the hierarchy of the senses to challenge ocularcentrism. As Jay said himself, "they self-consciously sought to renew vision."[1041] The means by which, subversion of the status quo and the undermining of established norms was the *modus operandi* and one of the few uniting elements of this disparate group, is still very prevalent here in this discussion. However, by narrowing in from even a natural history viewpoint to focus specifically on the marine world and the abilities and qualities of these undersea creatures in interwar Surrealism, this will have shed some light on the inherently surreal nature of these animals themselves, who have been in front of our own eyes for all this time. Whether consciously or unconsciously, these artists and writers discussed here were sending a message through their work, and by placing them in unison, I hope that a new understanding of what it meant to live in a post-World War I world can be better grasped as a contribution to the study of early twentieth century avant-garde intellectual movements.

[1041] Jay, *Downcast Eyes,* 246.

REFERENCES

Bibliography

Abel, Richard. 'Exploring the Discursive Field of the Surrealist Scenario Text.' In *Dada and Surrealist Film*, edited by Rudolf E. Kuenzli, 58-71. Cambridge, MA: MIT Press, 2001.

Adamowicz, Elza. "Collage." In *The International Encyclopedia of Surrealism*, Vol. 1, edited by Michael Richardson, 186-189. London: Bloomsbury, 2019.

Ades, Dawn. *Dada and Surrealism*. London: London: Thames and Hudson, 1974.

---. *Dada and Surrealism Reviewed*. London: Arts Council of Great Britain, 1978. Hayward Gallery, Exhibition catalogue.

---. "Yves Tanguy." In *The International Encyclopedia of Surrealism*, Vol. 3, edited by Michael Richardson, 304-312. London: Bloomsbury, 2019.

Ades, Dawn and Simon Baker. *Undercover Surrealism: Georges Bataille and Documents*. Cambridge, MA: MIT Press, 2006. Hayward Gallery, Exhibition catalogue.

Agar, Eileen. *A Look at My Life*. Ed. Lambirth, Andrew. London: Methuen, 1988.

---. "Religion and the Artistic Imagination." *The Island* 4 (December 1931): 102.

Albert-Birot, Pierre. « mon bouquet au surréalisme. » *Surréalisme* 1 (October 1924).

Albert-Birot, Pierre and Jean Follain. *Albert Birot : Choix de Textes, Bibliographie, Portraits, Fac-Similés*. Paris : Seghers, 1967.

Albert-Birot Pierre and Société d'étude du XXe siècle. *Sic : sons, idées, couleurs et formes*. Paris: P. Albert-Birot, 1916.

Allmer, Patricia. *Angels of Anarchy: Women Artists and Surrealism*. London: Prestel, 2009. Manchester Art Gallery, Exhibition catalogue.

---. "Eileen Agar, *Coral, Seahorse* (1935)." In *Coral Something Rich and Strange*, edited by Marion Endt-Jones, 92-93. Liverpool: Liverpool University Press, 2013.

Alluin, Bernard, Yves Baudelle, and Paul Renard. *Marcel Arland ou la grâce d'écrire*. Dijon: Éditions Universitaires de Dijon, 2004.

Apollinaire, Guillaume. « La Vie anecdotique. » *Le Mercure de France* (April 1, 1917): 557-560.

---. "une lettre de Guillaume Apollinaire." *Surréalisme* 1 (October 1924).

Apollinaire, Guillaume, Yvan Goll and Blaise Cendrars. A*rchipenko*. Paris: Galerie Maeght, 1997. Galerie Maeght, Exhibition catalogue.

Arland, Marcel. « la route obscure. » *Surréalisme* 1 (October 1924).

Armstrong, Tim. *Modernism, Technology, and the Body: A Cultural History.* Cambridge: Cambridge University Press, 1998.

Arvidsson, Karl-Anders. « L'Engagement politique du surréalisme. » *Studia Neophilologica* 54.1 (1982): 151-68.

Audoin-Rouzeau, Stéphane and Annette Becker. *14–18: Understanding the Great War*. New York: Hill & Wang, 2002.

Auriol, Jean-George. "Whither the French Cinema." *transition* 15 (February 1929): 257-263.

Aurouet, Carole. L'Etoile de mer, *poème de Robert Desnos tel que l'a vu Man Ray*, Paris : Gremese, 2018.

Baker, Simon. « DOCTRINES (The Appearance of Things)." In *Undercover Surrealism: Georges Bataille and Documents*, edited by Dawn Ades, 34-41. Cambridge, MA: MIT Press, 2006. Hayward Gallery, Exhibition catalogue.

Baron, Jacques. "Crustacés." *Documents* nº 6 (November 1929): 332.

Barr, Alfred Hamilton, ed. *Fantastic Art Dada Surrealism*. New York: The Museum of Modern Art, 1936. Museum of Modern Art, Exhibition catalogue.

Barthes, Roland. *Camera Lucida : Reflections on Photography*. Translated by Richard Howard. New York : Hill and Wang, 1996.

---. "La métaphore de l'œil.' *Essais critiques*. Paris: Seuil, 1966.

Bataille, Georges. « La Conjuration sacrée. » *Acéphale* I (June 1936) : 1-4.

---. *Histoire de l'œil.* Paris : Gallimard L'Imaginaire, 2020.

---. *Story of the Eye.* San Francisco: City Lights Books, 1987.

---. *Visions of Excess: Selected Writings 1927-1939.* Edited and translated by Allan Stoekl. Minneapolis, MN: University of Minnesota Press, 2008.

---. "W.C. Preface to *Story of the Eye.*" In *Story of the Eye*, translated by Joachim Neugroschel, 97-101. San Francisco: City Lights Books, 1987.

Bazin, André. "Science Film: Accidental Beauty." In *Science is Fiction*, edited by Andy Masaki Bellows and Marina McDougall, 144-147. Translated by Jeanine Herman. San Francisco: Brico Press, 2000.

Bechtel, William and Robert C. Richardson. "Vitalism." In *Routledge Encyclopedia of Philosophy*, Taylor and Francis, 1998. https://www.rep.routledge.com/articles/thematic/vitalism/v-1.

Beebe, William. *Beneath Tropic Seas.* New York: G.P. Putnam's Sons, 1928.

---. "The Depths of the Sea: Strange Life Forms a Mile Below the Surface." *National Geographic* LXI, no. 1 (January 1932): 65-88.

Beer, Gillian. *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth-Century Fiction.* Cambridge: Cambridge University Press, 2000.

Béhar, Henri. 'Regards sur Yvan Goll et les Avant-Gardes.' In *Yvan Goll (1891-1950): Situations de l'écrivain*, edited by Michel Grunewald, 83-96. Bern: P. Lang, 1994.

Belay, Boris. "That Obscure Parallel to the Dialectic: Tangled Lines Between Bataille and Kojève." *Parallax (Leeds, England)* 3, no. 1 (1997): 55-69.

Bellows, Andy Masaki and Marina McDougall. *Science is Fiction.* San Francisco: Brico Press, 2000.

---. "Selected Writings by Jean Painlevé." In *Science is Fiction*, edited by Andy Masaki Bellows and Marina McDougall, 190-193. San Francisco: Brico Press, 2000.

Benjamin, Walter. "A Short History of Photography." *Screen* 13, no. 1 (Spring 1972): 5-26.

Berg, Brigitte. “Contradictory Forces: Jean Painlevé, 1902-1989.” In *Science is Fiction*, edited by Andy Masaki Bellows and Marina McDougall, 2-47. Translated by Jeanine Herman. San Francisco: Brico Press, 2000.

---. *Jean Painlevé*. Paris: Les documents cinématographiques, 1991.

---. “Maverick Filmmaker Jean Painlevé.” *Journal of Film Preservation* 69 (May 2005): 12-28.

Berman, Greta. “Synesthesia and the Arts.” *Leonardo* 32, no. 1 (1999): 15–22.

Bertho, Jean. *Surréalisme : Suivi de Autour de la Revue Surréalisme*. Paris : Jean-Michel Place, 2004.

Biro, Adam. *Dictionnaire Général du Surréalisme*, Paris : Presses Universitaires de France, 1982.

Bonnet, Marguerite. *André Breton : Naissance de l’aventure Surréaliste*. Paris : J. Corti, 1988.

Bostelmann, Else. “Fantastic Sea Life from Abyssal Depths.” *National Geographic* LXI, no. 1 (January 1932): Plates I-VIII.

Boulbès, Carole. « Au sans pareil : la revue *Littérature*. » In *Man Ray, Picabia et la Revue* Littérature, edited by Christian Briend, 11-18. Centre Pompidou, Exhibition catalogue.

Bowler, Peter J. *Science for All: The Popularization of Science in Early Twentieth-Century Britain*. Chicago: The Chicago University Press, 2009.

Breton, André. « Entrée des médiums. » *Littérature* 6 (November 1922) : 1-6.

---. *Mad Love*. Translated by Mary Ann Caws. Lincoln, NE: University of Nebraska, Bison Books, 1988.

---. *Manifeste du surréalisme* (1924). Paris: Pauvert, 1979.

---. *Manifestos of Surrealism*. Translated by Richard Seaver and Helen R. Lane. University of Michigan Press 1969.

---. “Second Surrealist Manifesto (1930).” In *Manifestos of Surrealism*, translated by Richard Seaver and Helen R. Lane, 117-194. Ann Arbor, MI: The University of Michigan Press 1969.

---. *Surrealism and Painting* (1928). Boston: MFA Publications, 2002.

---. “Surrealist Situation of the Object (1935).” In *Manifestos of Surrealism*, 255-278. Ann Arbor, MI: The University of Michigan Press, 1969.

---. “What is Surrealism?” *What is Surrealism? Selected Writings*, ed. Franklin Rosemont, London: Pluto, 1978.

Bru, Sascha. *The European Avant-Gardes, 1905-1935*. Edinburgh : Edinburgh University Press, 2018.

Burstein, Jessica. *Cold Modernism: Literature, Fashion, Art.* University Park, PA: Pennsylvania State University Press, 2012.

Buñuel, Luis. *My Last Breath*. London: Cape, 1982.

---. "Notes on the Making of *Un chien andalou*." *Art in Cinema*. New York (1968) : 29-30.

---. "Un Chien andalou." *La Révolution surréaliste* 12. (December 15, 1929) : 34-37.

Cahill, James Leo. *Zoological Surrealism: The Nonhuman Cinema of Jean Painlevé*. Minneapolis: University of Minnesota Press. 2019.

Camblin, Victoria. "Acéphale." In *The International Encyclopedia of Surrealism*, Vol. 1, edited by Michael Richardson, 489-492. London: Bloomsbury, 2019.

Campa, Laurence. « Dans la nuit des éclairs. » *L'Invention du surréalisme : des* Champs magnétiques *à* Nadja, edited by Bérénice Stoll and Olivier Wagner, 19-28. Paris: BNF Éditions, 2020, Bibliothèque nationale de France, Exhibition Catalogue.

Campbell, Louise. "Eileen Agar at Home: Domesticity, Surrealism, and Subversion." *Interiors* 3.3 (2012) : 227-246.

Carassou, Michel. « Surréalisme. » *Bibliographie des revues et journaux littéraires des XIXe et Xxe siècles, 1915-1930. Tome troisième*, edited by Jean-Michel Place and André Vasseur, 273-280. Paris : Éditions Jean-Michel Place, 1977.

Chadwick, Whitney. *Women Artists and the Surrealist Movement*. London: Thames and Hudson, 1985.

Chénieux-Gendron, Jacqueline. "Benjamin Fondane." In *The International Encyclopedia of Surrealism*, Vol. 1, edited by Michael Richardson, 574-577. London: Bloomsbury, 2019.

Child, Julia and Simone Beck. *Mastering the Art of French Cooking*. London: Penguin, 2010.

Christensen, Peter. "Benjamin Fondane's 'Scenarii intournables.'" In *Dada and Surrealist Film*, edited by Rudolf E. Kuenzli, 72-85. Cambridge, MA: MIT Press, 2001.

"Changed Status of the Wrist Watch." *New York Times*, July 9, 1916.

Clark, T. J. *The Painting of Modern Life: Paris in the Art of Manet and his Followers*. Princeton: Princeton University Press, 1984.

"Clarté [REVUE] / dir. Henri Barbusse." Bibliothèque Kandinsky.

Cohen, Margaret. "Underwater Optics as Symbolic Form." *French Politics, Culture & Society*. Dossier: Technology, the Visual and Culture, 32, No. 3, (Winter 2014): 1-23.

Conley, Katharine. "Robert Desnos." In *The International Encyclopedia of Surrealism*, Vol. 2, edited by Michael Richardson, 222-229. London: Bloomsbury, 2019.

Conley, Verena Andermatt. *Hélène Cixous*. London: Harvester Wheatsheaf, 1992.

Cuénot, Alain. "*Clarté* (1919-1928) : du refus de la guerre à la révolution." *Cahiers d'histoire. Revue d'histoire critique* 123 (2014) : 115-136.

Creed, Barbara. "The Unheimlich Pacific of Popular Film: Surreal Geography and the Darwinian Sublime." In *Papers of Surrealism*, issue 6, Autumn 2007, 2-3, http://www.surrealismcentre.ac.uk/papersofsurrealism/journal6/index.htm.

Crevel, René. « je ne vendrai pas la commode de mon grand-père. » *Surréalisme* 1 (October 1924).

Crevel, René, and Raoul Coquereau. *Écrits Sur L'art Et Le Spectacle : Peinture, Sculpture, Photographie, Cinéma, Musique, Ballet, Théâtre, Chanson, Music-Hall, Cirque*. Toulouse : Éd. Ombres, 2012.

« Dada [REVUE] : Recueil littéraire et artistique / dir. Tristan Tzara." Bibliothèque Kandinsky.

Dalrymple Henderson, Linda. *The Fourth Dimension and Non-Euclidean Geometry in Modern Art*. Cambridge, MA: MIT Press, 2018.

---. "The Fourth Dimension and Non-Euclidean Geometry in Modern Art: Conclusion." *Leonardo* 17, no. 3 (1984): 205-210.

De Pieri, Damiano. « La revue *Littérature* et la naissance du surréalisme. » *L'Invention du surréalisme : des* Champs magnétiques *à* Nadja, edited by Bérénice Stoll and Olivier Wagner, 41. Paris: BNF Éditions, 2020, Bibliothèque nationale de France, Exhibition catalogue.

Décaudin, Michel. « Soupault en 1917 : *Aquarium* » Boucharenc, Myriam, and Claude Leroy. *Présence de Philippe Soupault*, 15-24. Caen: Presses universitaires de Caen, 1999.

Delteil, Joseph. « esthètes et anges. » *Surréalisme* 1 (October 1924).

Dermée, Paul. "Pour en finir avec le surréalisme." « Interventions – Le Mouvement accéléré, » Jean-Michel Place, André Vasseur, ed. *Bibliographie des revues et journaux littéraires des XIXe et Xxe siècles, 1915-1930. Tome troisième* Pari : Éditions Jean-Michel Place, 1977.

---. "surréalisme couleur du temps (Pneumatique)." *Surréalisme* 1 (October 1924).

Desbois, Evelyne. « Vivement la guerre qu'on se tu ! », *Terrain* 19 (1992 : 1-14.

Desnos, Robert. *Cinéma*. Pari : André Tchernia, 1966.

---. « Cinéma d'avant-garde. » *Documents* 7, December 1929.

---. "Max Ernst's Hundred-Headless Woman." *Documents* 4, 1930 translated by Krzysztof Fijalkowski and Michael Richardson for *Undercover Surrealism*, 205-206.

Devésa, Jean-Michel. "René Crevel." In *The International Encyclopedia of Surrealism*, Vol. 2, edited by Michael Richardson, 183-191. London: Bloomsbury, 2019.

Dickinson, Edward & Bruce, Murray & Dowsett, Robert. "The Naturalist's Miscellany by George Shaw (1789-1813): an assessment of the dating of the parts and volumes." *Archives of Natural History* 33 (2006): 322-343.

Drew, David. "The Savage Parade – From Satie, Cocteau, and Picasso to the Britten of 'Les Illuminations' and beyond." *Tempo*, 217 (2001) : 7-21.

Durao, Fabio, and Dominic Williams. *Modernist Group Dynamics: The Politics and Poetics of Friendship*. Newcastle: Newcastle: Cambridge Scholars Publishing, 2008.

Durozoi, Gérard. *History of the Surrealist Movement*, translated by Alison Anderson. Chicago, IL: University of Chicago Press, 2004.

Duvignaud, Jean. *Arland*. Paris: Gallimard, 1962.

Eburne, Jonathan. "Breton's Wall, Carrington's Kitchen: Surrealism and the Archive." *Intermédialités / Intermediality* 18 (Autumn 2011): 17–43.

Eileen Agar, a Retrospective: 8th July – 7th August 1987. London: London: Birch and Conran, 1987. Birch and Conran Gallery, Exhibition catalogue.

Einstein, Carl. "Design of a Landscape." *transition* 19-20 (June 1930): 212-217.

---. *Die Kunst des 20. Jahrhunderts*. Wildpark-Potsdam : Athenaion, 1931.

---. *Notes sur le cubisme*, *Documents* 1, nº3 (June 1929 : 146-155.

Einstein, Carl, and Charles W. Haxthausen. "Notes on Cubism." October 107 (Winter 2004): 158-168.

Eli Lotar. Paris : Jeu de Paume, 2017. Jeu de Paume, Exhibition catalogue.

Elias, Ann. "Sea of Dreams: André Breton and the Great Barrier Reef." *Papers of Surrealism* 10. Manchester: University of Manchester Press, (Summer 2013): 1-15.

Endt, Marion. "Reopening the Cabinet of Curiosities: Nature and the Marvellous in Surrealism and Contemporary Art." PhD diss., University of Manchester, 2008,

Endt-Jones, Marion. *Coral: Something Rich and Strange*, Liverpool: Liverpool University Press, 2013.

Ernst, Max. "Inspiration to Order" (1937). In *Beyond Painting*. New York: Wittenborn Schultz, Inc., 1948.

Exploratory Works: Drawings from the Department of Tropical Research Field Expeditions, New York: The Drawing Center, 2017. The Drawing Center, Exhibition catalogue.

Falasca-Zamponi, Simonetta. "A Left Sacred or a Sacred Left? The "Collège De Sociologie", Fascism, and Political Culture in Interwar France." *South Central Review* 23, no. 1 (2006): 40-54.

ffrench, Patrick. *The Cut: Reading Bataille's Histoire de l'oeil*. Oxford: Published for the British Academy by Oxford University Press, 1999.

Fletcher, Valerie J. *Marvelous Objects: Surrealist Sculpture from Paris to New York*. Washington, DC: Hirshhorn Museum and Sculpture Garden, 2015. Hirshhorn Museum and Sculpture Garden, Exhibition catalogue.

Fossen, Maité. « Valeska Gert, » *Empreinte : écrits sur la danse*, nº 5. (March 1983).

Foster, Hal. *Compulsive Beauty*. Cambridge, MA: MIT Press, 1993.

Fox, Richard S., Edward E. Ruppert and Robert D. Barnes. *Invertebrate Zoology: A Functional Evolutionary Approach*. Belmont, CA: Thomson Brooks/Cole, 2004.

Fraser, Robert. *Night Thoughts: The Surreal Life of the Poet David Gascoyne*. New York: Oxford University Press, 2012.

Fretz, Lauren E. "Surréalisme Sous-l'Eau: Science and Surrealism in the Early Films and Writings of Jean Painlevé." *Film & History: An Interdisciplinary Journal* 40, no. 2 (2010): 45-65.

Freud, Sigmund. *The Uncanny*. Penguin Books, 2003.

Gascoyne, David. "And the Seventh Dream is the Dream of Isis." *New Verse* 5 (October 1933): 157-158.

Gibson, Susannah. "Living Rocks: The Mystery of Coral in the Eighteenth Century." In *Coral Something Rich and Strange*, edited by Marion Endt-Jones, 63. Liverpool: Liverpool University Press, 2013.

Giribet, Gonzalo. *Invertebrate Tree of Life*. Princeton: Princeton University Press, 2020.

Goll, Claire and Otto Hahn. *La Poursuite du Vent*. Pari : O. Orban, 1976.

[Goll, Yvan.] "exemple de surréalism : le cinéma." *Surréalisme* 1 (October 1924).

Goll, Yvan. *Mathusale : Les Immortel : Théâtre*. Paris : L'Arche, 1963.

---. "A Caravan of Longings." translated by Madeleine Reid. *transition* 7 (October 1927): 136.

---. "Manifeste du Surréalisme." *Surréalisme* 1 (October 1924).

---. "le peintre robert delaunay parle." *Surréalisme* 1 (October 1924).

Goll, Yvan, et al. "The Chaplinade: A Film Poem." *The Massachusetts Review* 6, no. 3, (Spring-Summer 1965): 497–514.

Goll, Yvan and Claire Goll. *Yvan Gol : Un Poète, Sa Femme, Ses Illustrateur : Exposition À Saint-Dié-des-Vosges, Musée et Bibliothèque, 22 Novembre au 14 Décembre 1980*. Saint-Dié-des-Vosge : Société des amis de la bibliothèque et du musée, 1980. Saint-Dié-des-Vosges, Musée Et Bibliothèque, Exhibition catalogue.

Goll, Yvan, Claire Goll, and François X. Jaujard. 'Lettre à Feu. Le Poète Guillaume Apollinaire,' *Littératur : Tome I*. Pari : Editions Emile-Paul, 1968.

Goody, Alex. *Technology, Literature and Culture.* Cambridge: Polity, 2011,

Gosse, Philip Henry. *A Naturalist's Rambles on the Devonshire Coast.* London: Van Voorst, 1853.

Giribet, Gonzalo. *Invertebrate Tree of Life*. Princeton University Press, 2020.

Haan, Joost, Koehler, Peter J., Bogousslavsky, Julien. "Neurology and Surrealism: André Breton and Joseph Babinski." *Brain* 135 (2012): 3830-3838.

Hamery, Roxane. *Jean Painlev : le cinéma au cœur de la vie*. Renne : Presses Universitaires de Rennes, 2006.

---. « Jean Painlevé et la promotion du cinéma scientifique enFrancee dans les années trente. » *1895. Mille huit cent quatre-vingt-quinze* 47 (2005) : 78-95.

Hanke, F. D., & Kelber, A. "The Eye of the Common Octopus (*Octopus vulgaris*)." *Frontiers in physiology* 10 (2019): 1637.

Harding, Jason. "'Experiment" in Cambridge." *The Cambridge Quarterly* 27, no. 4 (1998): 287-309.

Hayward, Eva S. "OctoEyes." *Frontiers in Communication* 3 Article 50 (February 2019): 1-11

Hazéra, Hélène and Dominique Leglu. "Jean Painlevé Reveals the Invisible." In *Science is Fiction*, edited by Andy Masaki Bellows and Marina McDougall, 170-179. Translated by Jeanine Herman. San Francisco: Brico Press, 2000. [Originally published as an interview in *Libération*, 1986.]

Heflin, Christina. "Jean Painlevé's Surrealism, Marine Life & Non-Ocular Modes of Sensing." *Cross-Cultural Studies Review*, Vol. 2, No. 1-2, 2020.

Heflin, Christina. "*The Ceremonial Hat for Eating Bouillabaisse* d'Eileen Agar et les modes sensoriels," *Horsd'œuvre* nº 48: Ressentir les mondes, Winter 2021-2022 (forthcoming).

Henein, Georges. "Hot Jazz" (1935). In *Black, Brown and Beige: Surrealist Writings from Africa and the Diaspora*, edited by Franklin Rosemont and Robin G. D. Kelley, 152. Austin: University of Texas Press, 2009.

Hersey, George. *The Lost Meaning of Classical Architecture: Speculations on Ornament from Vitruvius to Venturi.* Cambridge, MA: MIT Press, 1988.

Hollier, Denis. *Against Architecture.* Cambridge, MA: MIT Press, 1993.

Hovanec, Caroline. "Another Nature Speaks to the Camera: Natural History and Film Theory." *Modernism/Modernity* 26, no. 2 (April 2019): 243-265.

Howell, Sarah. "A-Head of Her Time." *World of Interiors* (September 1991): 84-89.

Iampolski, M. B. "Intertext against Intertext: Buñuel and Dalí's *Un Chien andalou*." *The Memory of Tiresias: Intertextuality and Film*. Berkeley: University of California Press, 1998.

International Surrealist Bulletin No. 4, September 1936.

International Surrealist Exhibition. *The International Surrealist Exhibition.* London : New Burlington Galleries, 1936. New Burlington Galleries, Exhibition catalogue.

« Interventions – Le Mouvement accéléré. » *Bibliographie des revues et journaux littéraires des XIxe et XXe siècles, 1915-1930. Tome troisième*, edited by Jean-Michel Place and André Vasseur Paris : Éditions Jean-Michel Place, 1977.

Jager, Marie. "Sea of Joy." *Jean Painlevé.* Birmingham: IKON, 2017. IKON Gallery, Exhibition catalogue.

Jay, Martin. "The Disenchantment of the Eye: Surrealism and the Crisis of Ocularcentrism." *Visual anthropology review: journal of the Society for Visual Anthropology* 7 (1991): 15-38.

---. *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought.* Berkeley: University of California Press, 1993.

"Jean Painlevé's Film." *New York Times.* June 29, 1930.

Jennings, Humphrey. 'Surrealism: Reviewed by Humphrey Jennings.' *Contemporary Poetry and Prose* 8 (Dec 1936): 167-168.

de Jonge, Niels and Diana B. Peckys. "Live Cell Electron Microscopy Is Probably Impossible." *ACS Nano 10* (2016): 9061-9063.

Jovanovic-Kruspel, Stefanie, Valérie Pisani, and Andreas Hantschk. "'Under Water' – Between Science and Art – The Rediscovery of the First Authentic Underwatersketches by Eugen Von Ransonnet-Villez (1838–1926)." *Annalen des Naturhistorischen Museums in Wien. Serie A Für Mineralogie und Petrographie, Geologie und Paläontologie, Anthropologie und Prähistorie* 119 (2017): 131-53.

Judovitz, Dalia. 'Anemic Vision in Duchamp's Cinema as Readymade.' In *Dada and Surrealist Film*, edited by Rudolf E. Kuenzli, 46-57. Cambridge, MA: MIT Press, 2001.

Juler, Edward. *Grown but Not Made: British Modernist Sculpture and the New Biology*. Manchester : Manchester University Press, 2016.

Jutrin, Monique. "Beyond the Avant-Garde: Benjamin Fondane." From Dada to Infra-Noir: Dada, Surrealism and Romania. *Dada/Surrealism* 20, article 6. (2015): 1-12.

Kachur, Lewis. *Displaying the Marvelous: Marcel Duchamp, Salvador Dalí, and Surrealist Exhibition Installations*. London: MIT Press, 2001.

Kern, Stephen. *The Culture of Time and Space, 1880–1918*. Cambridge, MA: Harvard University Press, 1983.

Kite, Marion. "*Ceremonial Hat for Eating Bouillabaisse*: Eileen Agar 1936," *Conservation Journal* 14 (January 1995), accessed 21 September 2017, http://www.vam.ac.uk/content/journals/conservation-journal/issue-14/ceremonial-hat-for-eating-bouillabaisse-eileen-agar-1936/.

Klapaki, Nektaria. "Greece." In *The International Encyclopedia of Surrealism*, Vol. 1, edited by Michael Richardson, 74-83. London: Bloomsbury, 2019.

Knowles, Kim. *A Cinematic Artist: The Films of Man Ray*. Oxford: Peter Lang, 2009.

Komel, Mirt. "A Touchy Subject: The Tactile Metaphor of Touch." *Družboslovne razprave* 32, no 82 (2016): 115-125.

Krauss, Rosalind E. "Corpus Delicti." *L'Amour Fou: Photography & Surrealism*, edited by Jane Livingston and Rosalind Krauss, 57-111. New York: Abbeville Press, 1985. Hayward Gallery, Exhibition catalogue.

---. *The Originality of the Avant-Garde and the Other Modernist Myths*. London; Cambridge, Mass;: The MIT Press, 1986.

---. *Passages in Modern Sculpture*. New York: Viking Press, 1977.

---. "Photography in the Service of Surrealism." *L'Amour Fou: Photography & Surrealism*, edited by Jane Livingston and Rosalind Krauss, 15-56. New York: Abbeville Press, 1985. Hayward Gallery, Exhibition catalogue.

Krauss, Rosalind and Jane Livingston. "Preface." *L'Amour Fou: Photography & Surrealism*, edited by Jane Livingston and Rosalind Krauss, 9-14. New York: Abbeville Press, 1985. Hayward Gallery, Exhibition catalogue.

Ado Kyrou. *Le Surréalisme au cinéma* Paris : Ramsay, 2005.

Laclotte, Michel, Jean-Pierre Cuzin, and Arnauld Pierre. « Symbolisme. » *Dictionnaire de la Peinture*. Paris : Larousse, 2003.

Lambirth, Andrew. "A Question of Dates." *Eileen Agar 1899 – 1991*, edited by Ann Simpson, 36-46. Edinburgh: National Galleries of Scotland, 1999. Scottish National Gallery of Modern Art, Exhibition catalogue.

---. *Eileen Agar: An Eye for Collage*. Chichester: Pallant House Gallery, 2009. Pallant House Gallery, Exhibition catalogue.

Lant, Antonia. "Haptical Cinema." *October* 74 (1995): 45–73.

Lassalle, Jean-Pierre. "Alfred Jarry." In *The International Encyclopedia of Surrealism*, Vol. 1, edited by Michael Richardson, 588-591. London: Bloomsbury, 2019.

Lautréamont, Comte de. "The Songs of Maldoror, Canto VI, Verse 3." *Maldoror and Poems*. New York: Penguin. 1978.

Laxton, Susan. *Surrealism at Play*. Durham, NC: Duke University Press, 2019.

Leed, Eric. *No-Man's Land: Combat and Identity in World War I*. Cambridge: Cambridge University Press, 1981.

Levi-Strauss, Claude. *The Raw and the Cooked*. London: Pimlico, 1969.

Lomas, David. "Pipilotti Rist, *Sip My Ocean* (1996)." In *Coral Something Rich and Strange*, edited by Marion Endt-Jones, 101. Liverpool: Liverpool University Press, 2013.

Lyford, Amy. *Surrealist Masculinities: Gender Anxiety and the Aesthetics of Post–World War I Reconstruction in France*. Berkley: University of California Press, 2007.

Lyotard, Jean-François. 'Representation, Presentation, Unpresentable.' In *The Inhuman: Reflections on Time*, translated by Geoff Bennington & Rachel Bowlby, 119-128. S tanford: Stanford University Press, 1991.

Mabille, Pierre. "L'Œil du peintre." *Minotaure* 12/13. (May 12, 1939) : 53-56.

MacDonald, Scott. "Up Close and Political: Three Short Ruminations on Ideology in the Nature Film." *Film Quarterly* 59, no. 3 (2006): 4-21.

Maeterlinck, Maurice. *Les Sentiers de la Montagne* Paris : E. Fasquelle, 1919.

Mamiya, Michio. “Sensing time,” *Contemporary Music Review* 1, no. 2 (1987): 45-52.

Man Ray. *Self-Portrait*. Boston: Little, Brown and Company, 1963.

---. *Cahiers du cinéma*. July 1952.

Marey, Etienne-Jules. “Locomotion in Water as Studied Through Chronophotography.” (1890), translated by Hanna Rose Shell, *Making Things Public: Atmospheres of Democracy*, edited by Bruno Latour and Peter Weibel, 327-331. Karlsruhe, Germany and Cambridge, Mass.: ZKM and the MIT Press, 2005.

Martin, Adrian. “Science is Fiction: The Films of Jean Painlevé.” *Cinéaste* 32, no. 4 (2007): 65.

Mathews, Tim. “Guillaume Apollinaire.” In *The International Encyclopedia of Surrealism*, Vol. 1, edited by Michael Richardson, 541-543. London: Bloomsbury, 2019.

Merleau-Ponty, Maurice. “Cézanne’s Doubt.” in *Sense and Non-sense*, translated by Hubert L. Dreyfus and Patricia A. Dreyfus. Evanston, IL: Northwestern University Press, 1964.

---. “Eye and Mind.” *The Primacy of Perception*, edited by James M. Edie, 159-190. Evanston, IL: Northwestern University Press, 1964.

Mesch, Claudia. “Games.” In *The International Encyclopedia of Surrealism*, Vol. 1, edited by Michael Richardson, 213-215. London: Bloomsbury, 2019.

Mesens, Eduard Léon Théodore. *Troisième Front. Poèmes de Guerre. Suivi de pièces détachées. Illustré par l’auteur. Third Front & Detached Pieces. Translated by Roland Penrose & the Author.* London: London Gallery Editions, 1944.

Mirrlees, Hope. “Paris.” London: Hogarth Press, 1919.

Moore, Wendy. “John Hunter and the Origin of Species.” *The Linnean* 22, no. 4 (October 2006): 13-20.

Morrisson, Mark S. *Modernism, Science, and Technology*. London: Bloomsbury Academic, 2016.

Nagel, Thomas. “What Is It Like to Be a Bat?” *The Philosophical Review* 83.4 (1974): 435-450.

Nancy, Jean-Luccribe scribo.’ *Oxford Literary Review* 3, 2 (1978): 6-21.

Naumann, Francis M. *Conversion to Modernism: The Early Work of Man Ray*. New Brunswick, NJ: Rutgers University Press, 2003.

Neumann, Erich. *The Great Mother: An Analysis of the Archetype.* translated by Ralph Manheim. Princeton: Princeton University Press, 1974.

Oldfield, Sybil. *This Working-Day World: Women's Lives and Culture(s) in Britain, 1914-1945*. Hoboken, NJ: CRC Press, 2014.

Ovid, *Metamorphoses*, Translated by Horace Gregory. New York: The Viking Press, 1958.

Paalen, Wolfgang. "Art and Science." *Dyn* 3 (1942): 6.

Padley, A. P. "Gas: The Greatest Terror of the Great War." *Anaesthesia and Intensive Care* 44, no. 1 supplement (July 2016): 24–30.

Painlevé, Jean. "Castration of the Documentary." In *Science is Fiction*, edited by Andy Masaki Bellows and Marina McDougall, 148-156. Translated by Jeanine Herman. San Francisco: Brico Press, 2000. [Originally published in *Les Cahiers du cinéma*, 1953.]

---. "drame néo-zoologique." *Surréalisme* 1 (October 1924).

---. "Feet in the Water." In *Science is Fiction*, edited by Andy Masaki Bellows and Marina McDougall, 130-139. Translated by Jeanine Herman. San Francisco: Brico Press, 2000. [Originally published as "Les Pieds dans l'eau." *Voilà*, May 4, 1935.]

---. « L'œuvre de Jean Comandon. » *Jean Comandon* Paris : Hayez, 1967, 5-34.

---. "Mysteries and Miracles of Nature." In *Science is Fiction*, edited by Andy Masaki Bellows and Marina McDougall, 118-123. Translated by Jeanine Herman. San Francisco: Brico Press, 2000. [Originally published in *Vu*, 1931.]

---. "Préface." *Le Cinéma scientifique français*, Thévenard Pierre. *Le Cinéma scientifique français. Préface de Jean Painlevé.* Paris: La Jeune Parque, 1948. vii-viii.

---. “Scientific Film.” In *Science is Fiction*, edited by Andy Masaki Bellows and Marina McDougall, 160-169. Translated by Jeanine Herman. San Francisco: Brico Press, 2000. [Originally published in *La Technique cinématographique*, 1955.]

Parkinson, Gavin. *Surrealism, Art, and Modern Science: Relativity, Quantum Mechanics, Epistemology*. London: Yale University Press, 2008.

Paul Nash. Edited by Emma Chambers. London: Tate Publishing, 2016. Tate Britain, Exhibition catalogue.

La Peinture surrèaliste en Angleterre : 19 0-1960 : les enfants ’Alice : Paris, Galerie 1900-2000, [14 Mai-30 Juin 1982]. 1982. Paris: Galerie 1900-2000 Exhibition catalogue

Penrose, Roland Sir, Alexander Robertson, and Galleries Leeds City Art. *Surrealism in Britain in the Thirties: Angels of Anarchy and Machines for Making Clouds*. Leeds City Art Galleries, 1986. Exhibition catalogue.

Picabia, Francis. *La Loi d’accommodation chez les borgnes, “Sursum corda” (Film en 3 parties)* Paris : Éditions Thierry Briant, 1928.

---. “Opinions et portraits.” In *391*, nº XIX,. (Octobre 1924) : 1-2.

Pierre, José, and Jean Schuster. *Tracts Surréalistes Et Déclarations Collectives : 1*. Paris: le Terrain vague, 1982.

Polizzotti, Mark. *Revolution of the Mind: The Life of André Breton*. Boston: Black Widow Press, 2009.

Pollmann, Inga. *Cinematic Vitalism: Theories of Life and the Moving Image*. Chicago: University of Chicago Press, 2011.

Quinodoz, Jean-Michel. “How translations of Freud’s writings have influenced French psychoanalytic thinking.” *The International Journal of Psychoanalysis* 91, no. 4, (2010): 695-716.

Rabinovitz, Lauren. “Independent Journeyman: Man Ray, Dada and Surrealist Film-Maker.” *Southwest Review* 64, no. 4 (1979): 355–76.

Racine, Nicole. "The Clarté Movement in France, 1919-21." *Journal of Contemporary History* 2, no. 2 (1967): 195-208.

Rasula, Jed. *History of a Shiver*. New York : Oxford University Press, 2016.

Read, Herbert. “Art and the Unconscious.” *International Journal of Ethics* 36, no. 3 (1926): 305-08.

---. “Introduction.” *Surrealism*, edited by Herbert Read, 19-91. London: Faber, 1971.

Remy, Michel. *Surrealism in Britain.* Aldershot: Ashgate, 1999.

---. *Eileen Agar: Dreaming Oneself Awake*. London, UK: Reaktion Books, 2017.

Renard, Jules. *Histoire Naturelle*, translated by Douglas Parmée. New York: New York Review of Books, 2011.

Reverdy, Pierre. « bel occident. » *Surréalisme* 1 (October 1924).

Rey, Alain. « Joseph Delteil. ». *Dictionnaire des Écrivains de Langue Française* Paris : Larousse, 2001.

---. « Marcel Arland. ». *Dictionnaire des Écrivains de Langue Française* Paris : Larousse, 2001.

---. « Pierre Reverdy. » *Dictionnaire des Écrivains de Langue Française* Paris : Larousse, 2001.

---. « René Crevel. ». *Dictionnaire des Écrivains de Langue Française* Paris : Larousse, 2001.

Rodin, Auguste, *L'art / August Rodin ; entretiens réunis par Paul Gsell* Paris : Bernard Grasset, 1911.

Ronsin, Albert. « Yvan Goll et André Breton : des relations difficiles. » *Yvan Goll (1891-1950) : Situations de l'écrivain*, edited by Michel Grunewald, 57-74. Bern : P. Lang, 1994.

Rosemont, Penelope. *Surrealist Women: An International Anthology.* London: London: Athlone Press, 1998.

Rugoff, Ralph. "Fluid Mechanics." In *Science is Fiction*, edited by Andy Masaki Bellows and Marina McDougall, 48-57. San Francisco: Brico Press, 2000.

Sadoul, Georges. *French Film*. London: Falcon, 1953.

Salvador Dalí, Rétrospective, 19 20-1980: 18 dec. 1979-14 avr. 1980 , Paris: Centre Georges Pompidou, Musée nat'onal d'art moderne, Exhibition Catalogue.

Sauvage, Léo. "Institute in the Cellar." In *Science is Fiction*, edited by Andy Masaki Bellows and Marina McDougall, 124-128. Translated by Jeanine Herman. San Francisco: Brico Press, 2000. [Originally published in *Regards*, 1935.]

Schivelbusch, Wolfgang. *Disenchanted Night: The Industrialization of Light in the Nineteenth Century*, translated by Angela Davies. Berkeley: University of California Press, 1995.

---. *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century*, translated by Anselm Hollo. Berkeley: University of California Press, 2014.

Sebbag, Georges. “Georges Bataille.” In *The International Encyclopedia of Surrealism*, Vol. 2, edited by Michael Richardson, 47-55. London: Bloomsbury, 2019.

Shaw, George. “The natu’alists' miscellany, or, Coloured figures of natural objects; drawn and described immediately from nature.” Wellcome Collection, [The Zebra Gymnothorax, Vol. 9, 144-145].

---. “The natu’alists' miscellany, or, Coloured figures of natural objects; drawn and described immediately from nature.” Wellcome Collection, [Animal of the Nautilus Pompilius, Vol. 14, 229].

---. “The natu’alists' miscellany, or, Coloured figures of natural objects; drawn and described immediately from nature.” Wellcome Collection. [The Brown Patella, Vol. 15, 102].

---. “The natu’alists' miscellany, or, Coloured figures of natural objects; drawn and described immediately from nature.” Wellcome Collection, [Heart Chama, Vol. 15, 268].

Sherwin, Jeffrey. *British Surrealism Opened Up: From France to England.* Heaton, Bradford: Northern Artists Gallery Ltd, 2014.

“SIC [REVUE] : Sons, Idées, Couleurs, Formes / dir. Pierre Albert-Birot.”

Simpson, Ann. *Eileen Agar, 1899-1991*, edited by Ann Simpson. Edinburgh: National Galleries of Scotland, 1999. Scottish National Gallery of Modern Art, Exhibition catalogue.

---. “Chronology.” *Eileen Agar, 1899-1991*, edited by Ann Simpson, 89-91. Edinburgh: National Galleries of Scotland, 1999. Scottish National Gallery of Modern Art, Exhibition catalogue.

---. “Eileen Agar: The Spirit of Play.” *Eileen Agar, 1899-1991*, edited by Ann Simpson, 13-35. Edinburgh: National Galleries of Scotland, 1999. Scottish National Gallery of Modern Art, Exhibition catalogue.

Smaill, Belinda. “Encountering animals: Re-viewing the cinema of Jean Painlevé.” *Antennae: The Journal of Nature in Visual Culture* 42 (2017): 82-99.

Smythe, Luke. “Len Lye: The Vital Body of Cinema.” *October* 144 (2013): 73-91.

Snow, Charles Percy. *The Two Cultures.* Cambridge: Cambridge University Press, 2001.

Solarik, Bruno. “The Walking Abyss: Perspectives on Contemporary Czech and Slovak Surrealism.” *Papers of Surrealism*, Issue 3. University of Manchester Press, (Spring 2005): 1-9.

Sontag, Susan. “One Culture and the New Sensibility.” In *Against Interpretation and Other Essays*, London: Penguin, 2009.

Sosa Ortega, Diego. “From the Screen to the Stage: An Appropriation for the Stage of Luis Buñuel and Salvador Dalí’s *Un Chien Andalou* Based on an Analysis of the Film from the Perspective of the Spanish Literary Avant-Garde.” Ph.D diss., Royal Holloway, University of London, 2018.

Stabakis, Nikos. “Britain.” In *The International Encyclopedia of Surrealism*, Vol. 1, edited by Michael Richardson, 17-26. London: Bloomsbury, 2019.

Stent, Sabina. “Women Surrealists: Sexuality, Fetish, Femininity and Female Surrealism.” PhD diss., University of Birmingham, 2011.

Stitch, Sidra. *Anxious Visions: Surrealist Art*. New York: Abbeville Press, 1990. University Art Museum, University of California at Berkley, Exhibition catalogue.

[Stoll, Bérénice and Olivier Wagner.] « Introduction. » *L’Invention du surréalisme : des* Champs magnétiques *à* Nadja, edited by Bérénice Stoll and Olivier Wagner, 9. Paris : BNF Éditions, 2020, Bibliothèque nationFrance France, Exhibition catalogue.

Strekopytov, Stanislav. “John Hunter's Directions for Preserving Animals.” *Archives of Natural History* 45 (2018): 335-349.

Strom, Kirsten. *The Animal Surreal: The Role of Darwin, Animals and Evolution in Surrealism*. New York: Routledge, 2021.

---. “Automatism.” In *The International Encyclopedia of Surrealism*, Vol. 1, edited by Michael Richardson, 168-171. London: Bloomsbury, 2019.

Stubbs, Jeremy. “Goll Versus Breton: The Battle for Surrealism.” *Yvan Goll-Claire Goll: texts and contexts*, edited by Eric Robertson and Robert Vilain, 69-82. Amsterdam: Rodopi, 1997.

Le Surréalisme au service de la révolution. n°4, July 1930.

Susik, Abigail. *Surrealism and the War on Work*. Manchester: Manchester University Press, 2021.

Sykes Davies, Hugh. “Vendice.” *Experiment* 2, (Feb 1929): 16-17.

Syperek, Pandora. "The Blaschka glass models of marine invertebrates (*c.* 1860-1890)." In *Coral Something Rich and Strange*, edited by Marion Endt-Jones, 82-83. Liverpool: Liverpool University Press, 2013.

Tajiri, Yoshiki. *Samuel Beckett and the Prosthetic Body: The Organs and Senses in Modernism*. Basingstoke: Basingstoke: Palgrave Macmillan, 2006.

Tate Gallery. *Tate Gallery Illustrated Catalogue of Acquisitions: 1986-88*. London: Tate Publishing, 1996.

Taussig, Michael. "The Language of Flowers." *Critical Inquiry* 30, no. 1 (2003): 98-131.

Teixeira, Vincent. « L'œil de Gilles de Staal ou l'impossible Bataille. » *Fukuoka University Review of Literature and Humanities* XLIII, no. II (2011): 425-444.

Thévenard, Pierre. *Le Cinéma scientifique français. Préface de Jean Painlevé.* Paris: La Jeune Parque, 1948.

Thiher, Allen. *The Cinematic Muse: Critical Studies in the History of French Cinema.* Columbia, MO: University of Missouri Press, 1979.

transition, issue 13, June 1928.

Tzara, Tristan. "Un Certain autotisme du goût." *Minotaure* 3-4 (December 1933) : 81-84.

Walker, Ian. "'Her eyes of fern': The photographic portrait in Nadja." *History of Photography* 29, no. 2 (2005): 100-113.

Wallace, David Foster. *Consider the Lobster and Other Essays*. London: London: Abacus, 2007.

Walter, Christina. *Optical Impersonality: Science, Images, and Literary Modernism.* Baltimore: John Hopkins University Press, 2014.

Warehime, Marja. "Photography, Time and the Surrealist Sensibility." *Photo-textualities: Reading Photographs and Literature*, edited by Marsha Bryant, 43-56. Newark, DE: University of Delaware Press, 1996.

Watson, George. "Remembering Prufrock: Hugh Sykes Davies 1909-1984." *The Sewanee Review* 109, no. 4 (2001): 573-80.

Weiss, Allen S. *Feast and Folly: Cuisine, Intoxication, and the Poetics of the Sublime*. Albany, NY: State University of New York Press, 2002.

Wells, H. G. *The War That Will End War.* London: Frank & Cecil Palmer, Red Lion Court, 1914.

Whitworth, Anna. "The Angel of Anarchy: A Study of the Work of Eileen Agar up to the Second World War in the Context of English Surrealism." MA diss., The Courtauld Institute of Art, University of London, 1985. [Also Tate Archives TGA 9222/7/6/4.]

Whitworth, Michael. "Physics." *A Concise Companion to Modernism*, edited by David Bradshaw, 200-20. Oxford: Blackwell, 2003.

Wilde, Oscar. *The Uncensored Picture of Dorian Gray*. Harvard University Press, 2012.

Williams, Caroline. "Philosophy and Psychoanalysis: Lacan, Kojève and Hyppolite on the Concept of the Subject." *Parallax (Leeds, England)* 3, no. 1 (1997): 41-53.

Williams, Linda. "The Prologue to *Un Chien Andalou*: A Surrealist Film Metaphor." *Screen* 17, Issue 4, (Winter 1976): 24–33.

Williamson, Marcus. "David Gascoyne." In *The International Encyclopedia of Surrealism*, Vol. 2, edited by Michael Richardson, 315-318. London: Bloomsbury, 2019.

Yoshinori, Shichida and Matsuyama Take. "Evolution of opsins and phototransduction." *Philosophical Transactions of the Royal Society B* 364, Issue 1531 (October 12, 2009): 2881–2895.

Zeki, Semir. *Inner Vision: An Exploration of Art and the Brain*. Boston: Blackwell Scientific Publications, 1993.

Online Resources

"A Modern Herbal | Barley," accessed February 17, 2021, https://botanical.com/botanical/mgmh/b/barley15.html.

"A Modern Herbal | Bryony, White," accessed February 16, 2021, http://www.botanical.com/botanical/mgmh/b/brywhi77.html.

"A Modern Herbal | Ferns," accessed February 17, 2021, https://www.botanical.com/botanical/mgmh/f/ferns-08.html.

"A Modern Herbal | Horsetail," accessed February 16, 2021, https://www.botanical.com/botanical/mgmh/h/hortai39.html

"A Mythology of Forms: A Conversation About Carl Einstein," accessed February 10, 2021, https://gagosian.com/quarterly/2020/03/10/interview-mythology-forms-conversation-about-carl-einstein/.

Ades, Dawn, and Matthew Gale. "Surrealism." Grove Art Online. Oxford University Press. accessed 8 June 2019, https://www.oxfordartonline.com/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000082410.

« AGORHA: Bases de données de l'Institut national d'histoire de l'art (INHA), » REVUE - *DOCUMENTS (1929-1934)* - Dépouillement, accessed July 24, 2021. https://agorha.inha.fr/inhaprod/servlet/DocumentFileManager?source=ged&document=ged:IDOCS:264420&resolution=MEDIUM&recordId=musee:MUS_BIEN:95078

"L'Affaire Aragon (André Breton)," Atélier André Breton, accessed July 26, 2021, https://www.andrebreton.fr/fr/work/56600100603150.

"American Society of Ocularists – Frequently Asked Questions," accessed July 20, 2021, https://ocularist.org/resources_faqs.asp/#howlongeyesbeenaround.

"L'Ange bleu de Josef von Sternberg – (1930 – Drame," Télérama, accessed July 22, 2021, https://www.telerama.fr/cinema/films/l-ange-bleu,4373.php

Art Forms in Nature, "Karl Blossfeldt | MoMA," accessed February 16, 2021. https ://www.moma.org/artists/24413.

"'Azure Day,' Yves Tanguy, 1937 | Tate," Tate, accessed July 5, 2021, https://www.tate.org.uk/art/artworks/tanguy-azure-day-t07080.

Bechtel, Willian and Robert C Richardson. "Vitalism." In *Routledge Encyclopedia of Philosophy* edited by E. Craig. London: Routledge, 1998. accessed June 17, 2020. http://mechanism.ucsd.edu/teaching/philbio/vitalism.htm.

Béhar, Henri. "Jarry, Alfred." Grove Art Online. Oxford University Press. accessed June 10, 2019, https://www-oxfordartonline-com.ezproxy.inha.fr:2443/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000044454.

Bermuda unnumbered illustrations I, between 1929 and 1937, bulk: 1929 - 1937, Flat-Box: 16, Folder: 1. Wildlife Conservation Society Archives, accessed June 15, 2021. https://wcsarchives.libraryhost.com/repositories/2/archival_objects/1403.

Bertram, Christopher. "Jean Jacques Rousseau." *The Stanford Encyclopedia of Philosophy* (Winter 2020 Edition), edited by Edward N. Zalta, accessed March 4, 2021. https://plato.stanford.edu/archives/win2020/entries/rousseau/.

"BOUQUET : Défintion de BOUQUET." Centre national de ressources textuelles et lexicales, accessed July 28, 2021, https://www.cnrtl.fr/definition/bouquet

"Brandis Sextant with Willson Bubble Telescope | Time and Navigation," Smithsonian Institute, accessed July 10, 2021. https://timeandnavigation.si.edu/multimedia-asset/brandis-sextant-with-willson-bubble-telescope

Britannica Academic, s.v. "Cnidarian," accessed June 22, 2021, https://academic-eb-com.ezproxy01.rhul.ac.uk/levels/collegiate/article/cnidarian/110240.

Britannica Academic, s.v. "Friedrich Nietzsche," accessed May 21, 2021, https://academic-eb-com.ezproxy01.rhul.ac.uk/levels/collegiate/article/Friedrich-Nietzsche/108765#23659.toc

Britannica Academic, s.v. "Great Mother of the Gods," accessed July 25, 2021, https://academic.eb.com/levels/collegiate/article/Great-Mother-of-the-Gods/37867.

Britannica Academic, s.v. "Henri Barbusse," accessed July 27, 2021, https://academic-eb-com.ezproxy01.rhul.ac.uk/levels/collegiate/article/Henri-Barbusse/13324.

Britannica Academic, s.v. "Human behaviour," accessed July 25, 2021, https://academic.eb.com/levels/collegiate/article/human-behaviour/110429#24910.toc.

Britannica, T. Editors of Encyclopaedia. "Jules Renard." *Encyclopedia Britannica*, accessed May 18, 2021, https://www.britannica.com/biography/Jules-Renard.

Britannica Academic, s.v. "Sextant," accessed July 10, 2021, https://academic.eb.com/levels/collegiate/article/sextant/66995.

Britannica, T. Editors of Encyclopaedia. "Trench warfare." *Encyclopaedia Britannica*, accessed April 26, 2021, https://www.britannica.com/topic/trench-warfare.

“Broadcast - BBC Programme Index,” (Laver Programme October 8, 1948) BBC, accessed 2 July 2021, https://genome.ch.bbc.co.uk/895666e11b144ee9a077c1f9312bb564;

“Broadcast – BBC Programme Index,” (Grierson and Painlevé Programme October 4, 1948) BBC, accessed July 9, 2021, https://genome.ch.bbc.co.uk/3dd8505d306442358a68c985c356e307

“Ceremonial Hat – British Pathé,” British Pathé, accessed June 2, 2018, http://www.britishpathe.com/video/ceremonial-hat/query/126304

“Les chemins tournants de Pierre Reverdy.” accessed September 2, 2020, https://www.revue-etudes.com/article/les-chemins-tournants-de-pierre-reverdy-18374

“CONFONDU: Définition de CONFONDU,” Centre national de ressources textuelles et lexicales, accessed July 22, 2021, https://www.cnrtl.fr/definition/confondu

"Corpus callosum." *Britannica Academic*, Encyclopædia Britannica, accessed 30 Jun. 2018, academic.eb.com/levels/collegiate/article/corpus-callosum/474398.

Cork, Richard. “Wadsworth, Edward.” *Grove Art Online.* accessed July 10, 2021. https://www-oxfordartonline-com.ezproxy.inha.fr:2443/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000090320

Crum, Roger J. "Gallery 291." *Grove Art Online.* accessed July 25, 2021. https://www-oxfordartonline-com.ezproxy.inha.fr:2443/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000086736.

“Details - The Naturalist's Miscellany - Biodiversity Heritage Library,” Biodiversity Heritage Library, accessed June 20, 2021, https://www.biodiversitylibrary.org/bibliography/79941.

“Edited and published by Edward W. Titus | This Quarter, vol. V, no. 1 | The Metropolitan Museum of Art,” accessed July 8, 2021, https://www.metmuseum.org/art/collection/search/357905

“Edward Wadsworth, Semaphore, c. 1937-38 | Piano Nobile,” Piano Nobile, accessed July 10, 2021. https://www.piano-nobile.com/artists/1018-edward-wadsworth/works/1054/

“Equisetum hyemale,” accessed February 16, 2021. https://floridata.com/plant/561.

« L'Étoile de mer de Man Ray offerte par Robert Desnos – La Cinémathèque française, » accessed July 23, 2021. https://www.cinematheque.fr/objet/1284.html.

"Evolution." *Merriam-Webster.com Dictionary*, Merriam-Webster, accessed 10 Jun. 2020, https://www.merriam-webster.com/dictionary/evolution

« Exposition internationale Kubisme-Surrealisme de Copenhague (André Breton), » Atelier André Breton, accessed June 24, 2021, https ://www.andrebreton.fr/en/event/1030580.

Feigl, H. "Positivism." Encyclopaedia Britannica, accessed February 10, 2021. https://www.britannica.com/topic/positivism

Foresta, Merry A. "Man Ray." *Grove Art Online.* accessed 25 Jul. 2021. https://www-oxfordartonline-com.ezproxy.inha.fr:2443/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000053862

"Ginna – Corradini Arnaldo "Futuristi now, adesso, ahora, maintenant," accessed July 23, 2021. https://www.futurismo.org/ginna-corradini-arnaldo/.

Glazebrook, Mark. "Wadsworth, Edward Alexander (1889–1949), painter and printmaker." Oxford Dictionary of National Biography, accessed July 10, 2021. https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-36674.

"Glove Hat | Agar, Eileen Forrester." Victoria and Albert Museum, accessed November 25, 2020. http://collections.vam.ac.uk/item/O133580/glove-hat-hat-with-gloves-agar-eileen-forrester/.

Green, Christopher, and John Musgrove. "Cubism." *Grove Art Online.* accessed February 12, 2021. https://www-oxfordartonline-com.ezproxy.inha.fr:2443/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000020539.

"Guide to the York & Son human anatomy and physiology glass lantern slides, circa 1888-1900." Duke University Libraries, accessed 12 June 2018, https://library.duke.edu/rubenstein/findingaids/lizars-humananatomyslides.

Charles W. Haxthausen. “Carl Einstein, Daniel-Henry Kahnweiler, Cubism, and the Visual Brain,” accessed February 10, 2021, https://nonsite.org/carl-einstein-daniel-henry-kahnweiler-cubism-and-the-visual-brain/.

“Hard fern (Blechnum spicant),” accessed February 17, 2021, https ://www.woodlandtrust.org.uk/trees-woods-and-wildlife/plants/ferns/hard-fern/.

Charles W. Haxthausen. “Carl Einstein, Daniel-Henry Kahnweiler, Cubism, and the Visual Brain,” accessed February 10, 2021, https://nonsite.org/carl-einstein-daniel-henry-kahnweiler-cubism-and-the-visual-brain/

“Henri Barbusse – livres et romans de l’auteur aux Editions Flammarion," Flammarion, accessed July 27, 2021, https ://editions.flammarion.com/Auteurs/barbusse-henri.

“Hidden Treasures – Tate, Etc. | Tate,” accessed June 16, 2021, https://www.tate.org.uk/tate-etc/issue-51-spring-2021/eileen-agar-olivia-fraser-hidden-treasures

The Hollow Steel Ball That Changed Ocean Exploration Forever,” Atlas Obscura, accessed June 19, 2021, https://www.atlasobscura.com/articles/bathysphere.

“hypertrophy, n.”. OED Online. December 2020. Oxford University Press. accessed February 10, 2021, https://www-oed-com.ezproxy01.rhul.ac.uk/view/Entry/90391?isAdvanced=false&result=1&rskey=qqRofO&.

Jackson, Kevin. “Jennings, (Frank) Humphrey Sinkler (1907–1950), film-maker, painter, and writer.” *Oxford Dictionary of National Biography.* accessed July 9, 2021. https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-37600.

"Jacques Fraenkel – Biography – IMDb," accessed July 20, 2021, https://www.imdb.com/name/nm0289536/bio.

“Karl Blossfeldt at the Whitechapel Gallery,” accessed June 9, 2021. https://aperture.org/editorial/karl-blossfeldt-at-the-whitechapel-gallery/.

Kite, Marion. "*Ceremonial Hat for Eating Bouillabaisse*: Eileen Agar 1936," *Conservation Journal* 14 (January 1995), accessed 21 September 2017, http://www.vam.ac.uk/content/journals/conservation-journal/issue-14/ceremonial-hat-for-eating-bouillabaisse-eileen-agar-1936/.

"Ladies, gentlemen, why not admit it? I was feeling a peculiar anxiety," accessed February 26, 2021. https://www.andrebreton.fr/en/work/56600100311330.

"Light Cone – MATHUSALEM" accessed September 17, 2020, https://lightcone.org/en/film-1907-mathusalem

"Lucerna Magic Lantern Web Resource." accessed 12 June 2018, https://www.slides.uni-trier.de/set/index.php?id=3000592.

"Maison Schiaparelli – Schiaparelli & the artists – Pablo Picasso – Hands painted in trompe-l'œil imitating gloves," Maison Schiaparelli, accessed 26 November 2020, https://www.schiaparelli.com/en/21-place-vendome/schiaparelli-and-the-artists/pablo-picasso/hands-painted-in-trompe-l-oeil-imitating-gloves/.

"Maison Schiaparelli – Schiaparelli & the artists – Salvador Dalí – Schiaparelli Bureau-Drawer Suit," Maison Schiaparelli, accessed June 29, 2021, https://www.schiaparelli.com/en/21-place-vendome/schiaparelli-and-the-artists/gallery/80.

"Mathusalem ou l'Eternel Bourgeois." Télérama Magazine. accessed September 17, 2020, https://www.telerama.fr/cinema/films/mathusalem-ou-l-eternel-bourgeois,23286.php

"metaphysical, adj. and n.". OED Online. December 2020. Oxford University Press. https://www-oed-com.ezproxy01.rhul.ac.uk/view/Entry/117349?redirectedFrom=metaphysical (accessed February 10, 2021).

"Midwife toad," Encyclopædia Britannica, accessed December 8, 2020, https://www.britannica.com/animal/midwife-toad

"Military Technology in World War I | Library of Congress," accessed January 18, 2021, https://www.loc.gov/collections/world-war-i-rotogravures/articles-and-essays/military-technology-in-world-war-i/

"MoMA Marcel Duchamp. Rotary Demisphere (Precision Optics)," accessed May 19, 2021, https://www.moma.org/collection/works/81432.

"Moving Sidewalks Before the Jetsons | History | Smithsonian Magazine," accessed July 25, 2021, https://www.smithsonianmag.com/history/moving-sidewalks-before-the-jetsons-17484942/

"Musée d'Orsay: Notice d'Œuvre" Gustave Courbet *L'Origine du monde,* Accessed May 19, 2021, https://www.musee-orsay.fr/fr/collections/catalogue-des-oeuvres/notice.html.

"natural, adj. and adv." *OED Online*, Oxford University Press, May 12, 2020, www.oed.com/view/Entry/125333. accessed

Parker, Peter. "GPO Film Unit (act. 1933–1939)." *Oxford Dictionary of National Biography.* accessed July 9, 2021. https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-105463.

"'Personal papers of and artworks by Eileen Agar,' collection owner: Eileen Agar, 1917-92 – Tate Archive;" Tate Archive, accessed May 30, 2021, https://www.tate.org.uk/art/archive/tga-9222/personal-papers-of-and-artworks-by-eileen-agar.

"Pett and Pott: A Fairy Story of the Suburbs (1934) | BFI," British Film Institute, accessed July 16, 2021, https://www2.bfi.org.uk/films-tv-people/4ce2b69c081a5

"phototransduction," Merriam-Webster.com Medical Dictionary, s.v. accessed January 13, 2021, https://www.merriam-webster.com/medical/phototransduction.

"PROGRAMME INDEX - RADIO TIMES ISSUE EXPLORER, Issue 1296, Television, 15th Aug 1948 - 21st Aug 1948," BBC (Eye of the Artist), accessed June 30, 2021. https://genome.ch.bbc.co.uk/page/a0b3b86eee1c48a595d08a9b6f14a8b2?page=26;

"real, adj.2, n.2, and adv." *OED Online*, Oxford University Press, accessed May 12, 2020, www.oed.com/view/Entry/158926.

Salvini-Plawen, L. "Mollusk." Encyclopaedia Britannica, accessed March 16, 2021. https://www.britannica.com/animal/mollusk.

"SHAW, George (1751-1813) and Frederick Polydore NODDER (fl. 1773-c.1801). The Naturalist's Miscellany: or, coloured figures of natural objects; drawn and described immediately from nature. London: Nodder and Co., [1789]-1790-1813," Christie's, accessed June 20, 2021, https://www.christies.com/en/lot/lot-5210181.

"Silence d'or (André Breton)," Atélier André Breton, accessed June 4, 2021. https://www.andrebreton.fr/work/56600100198010.

Stark, Trevor. "Titus, Edward W.," Index of Historic Collectors and Dealers of Cubism, Leonard A. Lauder Research Center for Modern Art, Metropolitan Museum of Art, accessed July 8, 2021. https://www.metmuseum.org/art/libraries-and-research-centers/leonard-lauder-research-center/research/index-of-cubist-art-collectors/titus.

"SURNATURALISME : Définition de SURNATURALISME," Centre national de ressources textuelles et lexicales, accessed June 8, 2019, https://www.cnrtl.fr/definition/surnaturalisme.

"teleology, n.". OED Online. December 2020. Oxford University Press accessed February 10, 2021, https://www-oed-com.ezproxy01.rhul.ac.uk/view/Entry/198710?redirectedFrom=teleology.

"The Technology of World War I," Smithsonian Institute | Air and Space Museum, accessed January 18, 2021, https://airandspace.si.edu/stories/editorial/240-artist-soldiers-technology.

"These women unlocked the mysteries of the deep sea," National Geographic, accessed June 19, 2021, https://www.nationalgeographic.com/history/article/these-women-unlocked-the-mysteries-of-the-deep-sea

"This Quarter," Index of Modernist Magazines, accessed July 8, 2021, https://modernistmagazines.org/european/this-quarter/#1464124281502-9e535a72-b35327f2-9705,

"Tim Martin, 'Erich Neumann on Henry Moore: Public Sculpture and the Collective Unconscious,'" accessed February 26, 2021, https://www.tate.org.uk/art/research-publications/henry-moore/tim-martin-erich-neumann-on-henry-moore-public-sculpture-and-the-collective-unconscious-r1151316

"Training for Trench Warfare | Petersburg National Battlefield | U. S. National Park Service," accessed April 1, 2021, https://www.nps.gov/articles/training-for-trench-warfare.htm,

"Voices of the First World War: The Submarine War | Imperial War Museum," accessed July 13, 2021, https://www.iwm.org.uk/history/voices-of-the-first-world-war-the-submarine-war.

"Wadsworth, Edward Alexander." *Benezit Dictionary of Artists.* accessed July 10, 2021. https://www-oxfordartonline-com.ezproxy.inha.fr:2443/benezit/view/10.1093/benz/9780199773787.001.0001/acref-9780199773787-e-00193362.

"WCS-1039-01-05-U051-R | WCS Digital Archives | Wildlife Conservation Society," accessed June 15, 2021. https://wcs.access.preservica.com/uncategorized/IO_104f1f17-940b-4acd-a63c-103344429493/.

Wilkinson, Alan. "Moore, Henry Spencer (1898-1986), sculptor." *Oxford Dictionary of National Biography.* accessed March 4, 2021. https://www-oxforddnb-com.ezproxy01.rhul.ac.uk/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-39962

"Woman reading | Collections Online – Museum of New Zealand," accessed June 16, 2021, https://collections.tepapa.govt.nz/object/40619.

Woodward, B. B., and Jacob W. Gruber. "Shaw, George (1751-1813), natural historian." *Oxford Dictionary of National Biography.* accessed June 20, 2021. https://www-oxforddnb-com.ezproxy01.rhul.ac.uk/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-25250.

Zeller, M. *Précis élémentaire d'histoire naturelle (minéralogie, botanique, zoologie) : à l'usage des institutions et des autres établissements d'instruction publique*, (7th edition), accessed July 14, 2021, https ://gallica.bnf.fr/ark :/12148/bpt6k96915884/texteBrut.

Archival Resources

Tate Archives

Eileen Agar Archives

TGA 9222/3/2/1, TGA 8712/8/1, TGA 922/7/1/10, TGA 9222/2/2/3/9, TGA 929/6/3/2, TGA 9222/2/1/8, TGA 9222/2/2/3/2, TGA 9222/2/1/7, TGA 8712/1, TGA 9222/2/2/7, TGA 9222/3/2/16, TGA 9222/3/2/16, TGA 8712/6/8, 9222/7/6/4

British Library

Eileen Agar Interviewed by Cathy Courtney. NLSC: Artists' Lives. Rec 18/04/1990, 08/08/1990, 01/06/1990, 08/08/1990.

Yale

E. and M. Jolas papers (box 67, folder 1579, Subgroup Series I, Chicago Tribune Paris, Sunday Aug 31, 1924)

Getty

Man Ray, Getty Archives, Series III. Hollywood album, 1940-1948 Box 3, Art & Science Folder 1.