

When speaking and writing about his paintings and exhibitions, Damien Flood cites the mirrored worlds of utopian/dystopian fiction, from Athanasius Kircher's "Mundus Subterraneus" (1665) to René Laloux's animation "Fantastic Planet" (1973), as jumping-off points. Topographic elements, apparitions of experimental psychology and titles that conjure the immaterial are his recurrent motifs of the fantastic. An archaeology of forms upon overlaid semitransparent grounds destabilize the picture plane, reordering taxonomies and estranging the familiar. Discovering these worlds anew through "Counter Earth" (2010), "History of the Visitation" (2011) and "Theatre of the World" (2012), what follows is my own encounter with the very same mirrors and encyclopaediae. A PDF facsimile of the perplexing "Voynich Manuscript" led to renowned cryptographers' attempts at decipherment, and reacquaintance with Jorge Luis Borges' fabulous encyclopaediae, analogous to the Manuscript, that infuse and disintegrate the basis of knowledge, instigating Michel Foucault to write his archaeology of the human sciences, "The Order of Things" (1966).

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*Now I held in my hands a vast methodical fragment of an unknown planet's entire history, with its architecture and its playing cards, with the dread of its mythologies and the murmur of its languages, with its emperors and its seas, with its minerals and its birds and its fish, with its algebra and its fire, with its theological and metaphysical controversy.* (Jorge Luis Borges, "Tlön, Uqbar, Orbis Tertius" p.5)

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On 11 February 2011 the Accelerator Mass Spectrometry (AMS) Laboratory, University of Arizona, removed some of the uncertainty that has surrounded "the world's most mysterious manuscript"<sup>1</sup> since it re-emerged after centuries of obscurity in Villa Mondragone, a Jesuit College in Frascati, near Rome. The eponymously named "Voynich Manuscript" was rediscovered and purchased from the Jesuit brothers in 1912 by Polish-Lithuanian antiquarian bookdealer Wilfrid Voynich. Prior to the Jesuit College, previous owners of the Manuscript had included: Holy Roman Emperor Rudolph II (patron to scientists, astrologers and alchemists) and Jesuit polymath Athanasius Kircher (mentioned above). The most recent transfer of ownership took place when the Manuscript was bestowed to the Beinecke Rare Book and Manuscript Library, Yale University in 1969 by Hans Peter Kraus, who had purchased it for \$24,500 in 1961 from Voynich's secretary Anne Nill, to whom it had been left by Voynich's widow Ethel.<sup>2</sup>

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<sup>1</sup> John Matthews Manly, "The Most Mysterious Manuscript in the World: Did Roger Bacon Write it and has the Key been Found?" (1921), Harper's Monthly Magazine (143).

<sup>2</sup> Ethel Voynich (née Ethel Boole, Cork) author of "The Gadfly" (1897).

Described as a “scientific or magical text in an unidentified language” by the Beinecke Library catalogue, this wonderfully elusive Manuscript contains 116 numbered folios (over 240 pages), though some are missing. Written in characters apparently based on the Roman minuscule alphabet and containing hundreds of extraordinary illustrations, the Manuscript appears to have six distinct sections: a.) botanical, b.) celestial, c.) biological, d.) topographical, e.) apothecary, f.) alchemical. The fantastic botanical section contains illustrations of unidentifiable plant species, grafted onto zoomorphic, tentacular root systems; feline fragments and angelic faces become tubers for plants with convoluted geometric foliage and effervescent petals. The celestial section contains astral wheels, with segments, stars and pipes radiating from central suns or moons; naked nymphs bathing in concentric rings surrounding central signs of the zodiac. The biological illustrations show groups of naked nymphs in vaulted anatomical baths, cascading through intestinal systems, emerging from and inserting limbs into vascular tubes; frolicking in organ-shaped pools. The topographical section includes a central sextuple folio (six pages), showing nine interconnected islands, planets or “medallions”. These islands include architectural, agricultural, oceanic and cosmological elements as well as decorative, cellular forms. The apothecary section brings multiple botanical illustrations together with pharmaceutical vessels, each accompanied by a series of medicinal plants, suggesting curative remedies or narcotic concoctions; followed by the final alchemical section of possible recipes or incantations, each accompanied by a star or flower.

Since its rediscovery in 1912 the Manuscript has undergone careful transcription, attempted translation and cryptographic analysis; its meaning, authorship and authenticity subject to both considered hypotheses and fantastic speculation. Voynich himself claimed that the author was 13th century Franciscan friar and philosopher, Roger Bacon,<sup>3</sup> a claim that is supported by speculation that 16th century astrologer and alchemist John Dee, who collected Roger Bacon’s work, sold the manuscript to Rudolph II. Amongst other proposed authors are: Dee again, working together with scribe Edward Kelly, to both of whom the Angelic language ‘Enochian’ was revealed; 16th century philosopher, scientist and Lord Chancellor to Queen Elizabeth I, Francis Bacon; and Voynich himself.

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*It is conjectured that this brave new world is the work of a secret society of astronomers, biologists, engineers, metaphysicians, poets, chemists, algebraists, moralists, painters, geometers... directed by an obscure man of genius.*

(Jorge Luis Borges, "Tlön, Uqbar, Orbis Tertius" p.5–6)

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In September 1915, soon after the Manuscript’s rediscovery, a 24-year-old genetics scholar, William F. Friedman was recruited to Riverbank Laboratories, Illinois to study, amongst other things, the effects of moonlight upon crop growth. Alongside his lunar research, Friedman began to work with the quixotic Elizabeth Wells Gallup who, in the late

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<sup>3</sup> Wilfrid Voynich, "A Preliminary Sketch of the History of the Roger Bacon Cipher Manuscript", Lecture to the College of Physicians of Philadelphia (1921).

19th century, had helped develop the theory that the aforementioned Francis Bacon was in fact the author of some of the works attributed to William Shakespeare. In 1899 Gallup had uncovered messages from Bacon, hidden in Shakespeare's first folio and encrypted using the Baconian Cipher.<sup>4</sup>

Queen Elizabeth is my true mother, and I am the lawful heir to the throne.  
Find the Cypher storie my books contain; it tells great secrets, every one of  
which, if imparted openly, would forfeit my life. F. Bacon.<sup>5</sup>

Working for Gallup, Friedman photographed the extensive collection of Shakespeare's works held by the Laboratories for enlargement and careful bilateral cryptographic analysis, also creating a series of illustrations for Riverbank Laboratories publications.<sup>6</sup> Echoing the Voynich Manuscript's botanical section one, "Cipher Baconis Gallup" is an illustration of a flower named after Friedman's mentor, its petals, leaves and roots evidencing how anything can mean anything: the petals are enciphered "Shakespeare" and the roots "Bacon".

Shortly before the end of the First World War, Friedman was recruited as a civilian cryptological consultant to the US Army's Signal Corps, becoming the Army's senior (if only) cryptanalyst, subsequently establishing the Signals Intelligence Service (SIS), forerunner of the National Security Agency (NSA), in 1930. Soon after the beginning of the Second World in 1940, Friedman's SIS famously invented "The Purple Machine" that deciphered the Japanese "97-shiki ōbun inji-ki" cipher, codenamed "Purple".<sup>7</sup> Then in 1944 Ethel Voynich, who had been bequeathed the Manuscript after her husband's death in 1930, gave one of only six photostat copies to Friedman who instigated the "First Voynich Manuscript Study Group". According to Friedman's wife Elizabeth, the study group included: "specialists in philology, paleography, ancient, classical and medieval languages, Egyptologists, mathematicians and authorities on the other sciences depicted in the Manuscript." Meeting extra-curricular to SIS duties, the group undertook preliminary analysis, transcribing the Manuscript to IBM cards that could be fed into early relay computers. However, due to Post-War demobilization and without much progress the group was disbanded in 1946.

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<sup>4</sup> The Baconian or bilateral Cipher, created by Francis Bacon in the early 17th century is a method of enciphering where each letter of the alphabet can be represented by a combination of two signs (in this case the letters a and b) arranged in sets of five (e.g. a = aaaaa, b = aaaab, c = aaaba, d = aaabb, etc.) This cipher can also be created using binary signs, e.g. different typefaces, different shapes, different colours, etc. ad infinitum.

<sup>5</sup> Elizabeth Wells Gallup "The Bi-literal Cypher of Sir Francis Bacon: Discovered in His Works and Deciphered by Mrs. Elizabeth Wells Gallup" (1899).

<sup>6</sup> e.g. "The Keys for Deciphering the Greatest Works of Sir Francis Bacon" (1916) and "The First Twelve Lessons in the Fundamental Principles of the Baconian Ciphers" (1916).

<sup>7</sup> "97-shiki ōbun inji-ki" translates as "System 97 Printing Machine for European Characters", also known as "Angōki Taipu-B" or "Type B Cipher Machine" and codenamed "Purple" by SIS.

In 1951 Friedman introduced Brigadier John H. Tiltman, Senior Liaison Officer at the British Government's Communications Headquarters (GCHQ) and renowned cryptanalyst from Bletchley Park, to the Manuscript. In the following years, Tiltman undertook further statistical analysis of the Manuscript's script and comparative analysis of the botanical illustrations to Medieval Herbals, Aztec and Mayan codices and Materia Medica, but was unable "to find a point of connection with any other medical manuscript or early printed book."<sup>8</sup> In 1962 after engaging computer specialists at the Radio Corporation of America (RCA), Friedman formed the "Second Voynich Manuscript Study Group" who again met out of hours, undertaking further transcription, analysis and tabulation; again being disbanded before significant discoveries could be made. After Friedman's death in 1969 Tiltman passed the project to NSA cryptanalyst Mary D'Imperio, who continued the detailed analysis, concluding in 1978 that:

...Our only hope of success lies in the orderly and cooperative scientific approach to the entire body of text and all other data we have. In this way, perhaps we can some day achieve a solution whose satisfying completeness and appropriateness will do full justice to the elegant enigma of the Voynich Manuscript.<sup>9</sup>

Despite successive distinguished attempts to decipher the text and illustrations by the most highly acclaimed cryptanalysts, code-breakers and computer scientists, the Manuscript still refuses comprehension and its author(s) remain anonymous. However, when on Tuesday 1 February 2011 the AMS Laboratory announced that the parchment pages definitively originated from between 1404–1438, most considered hypotheses and wild speculations had to be dispensed with. Radioactive decay of carbon-14 confirmed that the author(s) could not have been: Roger Bacon (1214–1294); John Dee (1527–1608/9); Francis Bacon (1561–1626); or Wilfred Voynich (1865–1930). The mineral-based inks themselves cannot be radiocarbon dated because of their inorganic ingredients, but the colours have been identified as contemporaneous with the Renaissance palette, so apparently suspicion of a much later forgery is allayed; yet all the questions remain.

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*Tlön is surely a labyrinth, but it is a labyrinth devised by men, a labyrinth destined to be deciphered by men.* (Jorge Luis Borges, "Tlön, Uqbar, Orbis Tertius" p.16)

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Encyclopaediae, labyrinths, mirrors and the moon suffuse the metafiction of 20th century Argentinian polymath and literary archaeologist Jorge Luis Borges. While William Friedman was developing "The Purple Machine" and prior to the formation of the "First

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<sup>8</sup> Brigadier John Tiltman, "The Voynich Manuscript: The Most Mysterious Manuscript in the World" (National Security Agency, Maryland: 1967) p.11.

<sup>9</sup> Mary D'Imperio, "The Voynich Manuscript: An Elegant Enigma" (National Security Agency, Maryland: 1978) p.78.

Voynich Manuscript Study Group”, Borges published his short story "Tlön, Uqbar, Orbis Tertius" in 1940. Already suggesting three language families in its title (Nordic, Arabic, Latin), the story reveals a fantastic encyclopaedia strikingly similar to the Voynich Manuscript. In the initial section, Borges as narrator describes a mysterious chapter about the hereto unknown country Uqbar, discovered in a facsimile of the Encyclopaedia Britannica. Subsequently Borges encounters Volume XI of “The First Encyclopaedia of Tlön”, after it had been left at a bar by an Englishman who “suffered from unreality”.<sup>10</sup> This Volume, inscribed “Orbis Tertius”, describes the planet Tlön’s topography, zoology, nounless language,<sup>11</sup> epistemology, tactile geometry and metaphysics, which manifest 18th century Bishop George Berkeley’s immaterial hypothesis (or subjective idealism) where ideas and objects only exist if perceived: "esse est percipi".<sup>12</sup> A doorway that only existed as long as it was visited by a beggar disappeared after his death; the ruins of an amphitheatre that only continued to exist thanks its perception by some birds and a horse.

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Centuries and centuries of idealism have not failed to influence reality. [...] It has made possible the interrogation and even the modification of the past, which is now no less plastic and docile than the future.

(Jorge Luis Borges, "Tlön, Uqbar, Orbis Tertius" p.11)

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The first two sections and discoveries are retrospectively accompanied by Borges’ anxiogenic postscript dated 1947, explaining that a letter had been discovered in 1941 revealing that a “secret and benevolent society” (including Berkeley) had conspired to invent a country and subsequently create a fantastic planet.<sup>13</sup> The chapter about Uqbar and the discovered Tlönian encyclopaedia were in fact fabulous creations, demonstrating to a non-existent God that humanity could itself conceive of a world. In a further manifestation of Berkeley’s idealism, this time in Borges’ world, the perception of the chapter and encyclopaedia precipitate “the first intrusion of this fantastic world into the world of reality.”<sup>14</sup> A vibrating Tlönian compass with blue needle that does not point North is followed soon after by small, very heavy, extraterrestrial metal cones that are images of a Tlönian deity. These intrusions, announcing impending disintegration, mirror the actual intrusions into the 20th Century world order at the time Borges was writing: totalitarian perversions of idealism that were embodied by fascism in Europe, Stalinism in Russia,

<sup>10</sup> Jorge Luis Borges, "Tlön, Uqbar, Orbis Tertius", p.4.

<sup>11</sup> [T]here is no word corresponding to the word "moon", but there is a verb which in English would be "to moon" or "to moonate." "The moon rose above the river" is hlör u fang axaxaxas mlo, or literally: "upward behind the onstreaming it mooned." Ibid, p.6.

<sup>12</sup> Translated as: To be is to be perceived. Bishop George Berkeley, “Of the Principles of Human Knowledge” (1710).

<sup>13</sup> Jorge Luis Borges, "Tlön, Uqbar, Orbis Tertius" (1940) p.13.

<sup>14</sup> Ibid, p.14.



Borges concludes his acerbic essay by comparing Wilkins' aspirational language to "an arbitrary system of grunts and squeals"<sup>18</sup> that Wilkins somehow believes will represent the complexity of all things. Foucault uses Borges' fictive taxonomy as an example of heterotopia<sup>19</sup> where the common ground, basis of knowledge, or site where such a taxonomy could be located, has been disintegrated. Foucault's "archaeological" project is an enquiry into the diverse and changing order of empirical knowledge and the human sciences, while Borges' Tlönian and Chinese encyclopaediae are irrational, inverted mirrors, destabilizing the ground upon which knowledge and science are built. In both his fabulous story and parodic essay, Borges emphasizes and exposes the arbitrariness of language, classification systems and belief systems, forewarning of the terrible consequences of idealism manifest. When the Voynich Manuscript is eventually deciphered, its meaning perceived or its mysteries revealed, perhaps the secrets it has retained for centuries will destabilize the ground upon which everything is built, shattering the familiar landmarks of our thought.

[T]he Chinese encyclopaedia ... and the taxonomy it proposes, lead to a kind of thought without space, to words and categories that lack all life and place, but are rooted in a ceremonial space, overburdened with complex figures, with tangled paths, strange places, secret passages, and unexpected communications. There would appear to be, then, at the other extremity of the earth we inhabit, a culture entirely devoted to the ordering of space, but one that does not distribute the multiplicity of existing things into any of the categories that make it possible for us to name, speak, and think.<sup>20</sup>

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Further reading:

The Voynich Manuscript (unknown author, c.1404–1438)

<http://goo.gl/VmmMd>

Jorge Luis Borges, "Tlön, Uqbar, Orbis Tertius" (1940)

<http://goo.gl/XvTGu>

William H. Sherman, "How to Make Anything Signify Anything", Cabinet Magazine, Issue 40, 2010–2011

<http://www.cabinetmagazine.org/issues/40/sherman.php>

Mary D'Imperio, "The Voynich Manuscript: An Elegant Enigma" (1978)

<http://goo.gl/atX9Z>

Jorge Luis Borges, "The Analytical Language of John Wilkins" (1942)

<http://goo.gl/mldCH>

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<sup>18</sup> G. K. Chesterton's essay "Watt's Allegorical Paintings" (1904). Quoted in Jorge Luis Borges, "The Analytical Language of John Wilkins" (1942) p.4.

<sup>19</sup> "Heterotopias are disturbing, probably because they secretly undermine language, because they make it impossible to name this and that, because they shatter or tangle common names, because they destroy 'syntax' in advance, and not only the syntax with which we construct sentences but also that less apparent syntax which causes words and things (next to and also opposite one another) to 'hold together' ... [H]eterotopias (such as those to be found so often in Borges) desiccate speech, stop words in their tracks, contest the very possibility of grammar at its source; they dissolve our myths and sterilize the lyricism of our sentences." Michel Foucault, "The Order of Things", Preface, p. xix

<sup>20</sup> Ibid.

Michel Foucault, "The Order of Things", Preface (1966)  
<http://goo.gl/h6HG3>