Verne's cartographies.

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Verne's Cartographies
So, you've crossed this country?

"Of course!" Paganel replied severely.

"By pack-mule?"

"No, in an armchair."

_The Children of Captain Grant_
We can dispense with the tiresome canard that Jules Verne never traveled far from his homes in Nantes, Paris, Crotoy, and Amiens. His first trips abroad were in 1859, by steamship to England and Scotland with Aristide Hignard, a close friend and Verne’s collaborator on works; and he traveled again with Hignard in 1861 to Denmark and Norway. His only trip to the United States with his brother Paul—they visited New York and Niagara Falls—aboard Brunel’s grand liner the Great Eastern. Between 1868 and 1884, Verne made several short voyages on the Seine and along the coasts of France on the Saint Michel I and Saint Michel II, modest sailing yachts purchased in 1868 and 1876, respectively, with friends and family on a 150-foot steam yacht, the Saint Michel III included trips to England, Scotland, Ireland, the Netherlands, and Germany, and tours of the coasts of Spain, the north and south Mediterranean and the Baltic Sea.

In 1886, Verne ended these peregrinations. The expenses of maintaining the onerous (it was considerably more luxurious than its predecessors, with a full-time crew of was forced to sell the yacht at a loss. Family troubles, the death of his Pierre-Jules Hetzel, failing health (including cataracts in both eyes, bizarre assault by a nephew that left Verne lame), and growing financial difficulties took their toll. After the late 1880s, he seldom left Amiens. In a November Dumas fils, Verne complained of the infirmities of old age: “If I have nothing remains of my youth. I live in the heart of my province and never leave Paris. I travel only by maps.”

Analysis of the significance and functions of maps in Verne's writing begin, then, with an acknowledgment of the practical aspects of his us real and imagined, they depict. Verne, unlike the fictional Paganel, was nonfiction works demonstrate a thorough understanding of the methods of modern cartography; several of his novels (most notably, The Adventures of Three Russians and Three Englishmen) embrace technical problems of cartography and geodesy. These facts suggest a firm distinction within his fiction between pragmatic (documentation, navigation, mimesis) and its literary functions (verisimilitude, projection of an imaginary, narration). In Verne, maps are always ambiguous and semiotic.

Thirty of the novels in the 47-volume octavo editions of the Voyages E. Pierre-Jules Hetzel (from 1863 until his death in 1887) and his son Jule one or more engraved maps; there are forty-two such engravings in all published nonfiction on history and geography include dozens more oceanographic maps and charts. The covers and frontispieces of the cél et dorés (colored and gold inlaid bindings), while not maps strictly speak in this essay) elements of a subtle but unmistakable cartographic idiom enframing the works’ reception by contemporary readers.

These images and design elements are nuanced, graceful, and evocati some of the finest artists of the time, they represent the pinnacle of late
scientific cartography. In describing their engagements with textual Verne's fiction as his cartographies, I mean to emphasize their com support of the spatial imaginaries of his heroes' adventures. This program the corroborative and sometimes juxtaposed significance of maps and (the illustrations of the Hetzel editions), of textual passages that read lists and panoramic descriptions), and of maps and narrative passages of each form of representation. Seeing and writing, mapping and writing another throughout Verne's œuvre. The complexity and originality of represent one of the signal achievements of Verne and his publishers. The Extraordinaires are among the most accomplished and evocative reflections of alphabetic text to its graphic counterparts in modern fiction.

Des Cartes maîtres. Several of the maps appearing in the Hetzel Verne's close supervision or were based on his sketches or designs. (20,000 Leagues [Figure 1], Hatteras [Figure 2], Three Russians) whose talents in this regard were appreciable. In each of these works, image that doubles and seems to corroborate the novels' textual orders maps recognizably belong to the “real” world—complicates and extend structures. These maps are the only graphic devices of the texts attrib maps, and design elements in the Voyages are unattributed or credited on the frontispieces below the name of the author, thereby marking presentation of the work (“Illustrated with 111 drawings by De Neu vignettes by Férat,” etc.). Verne's designation as the creator of the text maps (assuming, provisionally, that this distinction is meaningful) si convention of illustrated fiction of the mid- and late-nineteenth cent text is plainly differentiated from the illustrators, the typesetters, the c (The author's text is thus held apart from its multiple, possibly vary illustrations support or sustain the textual register of the work, presentat of it; the essence of the textual work is its semantic content; its plastic or paratextual formal elements are the province of its publishers and distributors, etc. from and re-publication of Verne's fiction and nonfiction in different bi a textbook example of this practice. Because this distinction is conf the Voyages, Verne's role as author of text and image in these exce potential crossing of textual and paratextual boundaries implicit in this

Verne is too conscious of the literary effects of this crossing not to apply fictional and extrafictional orders is signalled in the legend of Ve Adventures of Captain Hatteras (1866): “Cartes des régions circumpol du Capitaine J. Hatteras par Jules Verne, 1860-61” [“Map of the circum voyage of Captain J. Hatteras by Jules Verne, 1860-61.”] (Figure 2). Yet “1860–61” is the period of Hatteras's ill-fated expedition to the Nor work on the novel until 1863, and the map could not have been drafted the novel was underway (Martin, La Vie 275). The legend implies, drafted by someone named “Jules Verne” at the conclusion of the Hi
records or testimony of the expedition’s survivors—by someone, in other words, in the same (fictive) domain as Hatteras and his companions. This subtle conflation (the map? the novel?) and the date of the adventure is typical of Verne’s strategic use of maps to support and extend his narratives. The calculated interleaving of fiction—“Jules Verne,” the expedition’s cartographer, doubles “Jules Verne,” the author—with the map’s incorporation of imagined spaces (Fort Providence, L’Île de la Côte, terrains of the Arctic (Baffin Bay, the Davis Strait, etc.).

Figure 2. “Carte des régions circumpolaires, dressée pour le voyage du Capitaine J. Hatteras par Jules Verne, 1860-61”

All the privileges of fiction’s recasting of the real obtain here: the simultaneous and unremarked presentation of actual and fictional names (belonging to actual and in some cases imagined) places and persons) subverts that fragile distinction within the narrative domains that include them.
The levelling of the two orders also sustains the verisimilitude of the narrative—more significant with regard to Verne's method, it inflects the actual with an influence of the unreal, so that signs of the former are treated no differently from signs of the latter. The "Davis Strait," a body of water on any modern map of the Arctic, is also a passage that Hatteras's ship the 1661 will travel through on its route to the Pole (Hatteras I§7). Beechy Island, site of a monument to the ill-fated 1845 expedition, will also be visited by Hatteras's crew, for whom the Terror and the terrible sufferings of their crews are a "sombre warning of the destiny" awaiting them (Hatteras I§20). In the early 1860s, the Pole is still an "inconnue" of the planispheric charts; nearly three decades later, the narrator describe the regions above the twenty-fourth parallel as the "mystery, the unrealizable zone of the cartographers." Verne's prerogative as an author is to imagine Hatteras's expedition within the unmapped space of this mysterious zone, to travel over the pole, and Hatteras's madness when he discovers that he will never set foot on the precise spot of the pole inside the raging volcano. His method is to entangle the textual (and graphic) apparatus that renders the fantastic credible.

These interleavings of texts and graphics can also incorporate techniques of auto-citation. In the maps shown in Figure 1, the legend ("Vingt Mille Lieues sous les mers..." vs. the path of the Nautilus, marked in a dotted line across the two maps.) repeats the uppermost lines of the title page ("Jules Verne / Vingt Mille Lieues sous les mers..." the maps, the narrative of exploration, and the textual artifact that includes them, all holds in her hands, titled Vingt Mille Lieues...). This map is not only a snapshot of the submarine's itinerary (shown all at once, not as it unfolds—I will return to this point)—of the book that, paradoxically, includes it. The scientific romance is sustained by antinomies such as this.

But which book? The novel by "Jules Verne" (who appears also to have written an putatively nonfiction memoir of the same title by Pierre Aronnax that Verne accept for the moment the conceit that the novel is really Aronnax's memoir), anything more than a conceit; the title page all but denies the possibility of "Jules Verne" who drew Aronnax's maps? Is he the same person who wrote the Transit of the pole? Within the world of the Voyages, the question is most important intertextual relays of the novels depends upon authorship of the memoir in his name: Cyrus Smith recognizes Nemo as the castaways of Lincoln Island because he has read Twenty Thousand Leagues Under the Sea written by "the Frenchman thrown by chance aboard [Nemo's] vessel, six years ago" (III§16). Smith is able to read Aronnax's book, but he cannot have read Verne's book; he anticipates paratextual and diegetic play typical of twentieth-century Borges), but he never goes so far as to permit his characters to cross over. The question, however, remains: has Smith seen "Jules Verne's" map of Nautilus? A careful reading of the Voyages only suggests this question, we refuse Verne's implied gambit that the answer may generate effects worth of our attention. In his writing, practical questions of space are always subject to the laws of literary necessity. Verne was, we know, a passionate and lifelong devotee of geography and cartography.
growing up in Nantes in the 1830s, he was awarded school prizes in geography. Journalists in the 1890s, he expressed an admiration for celebrated geographers (Elisée Reclus, Arago) equal to the novelists and dramatists who most influenced his fiction. Uncommonly disciplined and comprehensive reader, he read daily from as many as two dozen newspapers, magazines, and scientific journals, many devoted largely or exclusively to physical geography (see Sherard). A 1935 catalog of 700 volumes then remaining from Verne's enormous personal library includes nearly forty titles related to physical geography (see Sherard). His grandson Jean-Jules Verne recalled a magnificent set of German atlases Verne consulted while writing, and a great globe in his library on which the movements of his characters (Terrasse 29).

Figure 3. Left: Map of the route of the shipwrecked passengers of The Chancellor composition of the novel (c. 1870-74) (Source: Weissenberg, Un Univers fabuleux. Reprinted with permission of Weissenberg.) Right: Celestial map drawn by Verne during the composition of Hector Servadac (1873) and Gondolo della Riva, Verne à Dinard. Reproduced with permission of Piero Gondolo della Riva.)

He often drew original charts and maps of his characters’ itineraries during the writing of his novels. Most of these documents are now lost, but the few that survive demonstrate the careful spatial plotting typical of the Voyages. Several of these draft documents are the comprehensive graphic depictions of the novels’ spaces, and their omission is often significant. The published texts of The Chancellor (1875), for example, include no maps of the route of the derelict ship and the raft constructed by its crew, though Verne relied on such a document (Figure 3). The survivors of the Chancellor are unaware of the place
novel; the uncertainty of their course—also hidden from the reader, who plot their drift—contributes to their growing desperation, the novel surprising dénouement. Moreover, the presence of such an image in the novel undercuts its most original stylistic trait: narrated entirely in the present tense—the first long work of European fiction to utilize this technique (Butcher, “Le Verbe et la chair” to be an account of events as they are witnessed by the narrator, J.-R. Kazallon. The map reinforces a specifically textual effect of the narrative: a map cannot pretend to an ongoing extension of the present; it may mark trails of events but it must stand as temporality, detached from the fugitive generativity of the novel’s peculiar
dénouement. Similarly, the lack of a map or similar graphic depiction of the course of the comet Gallia in published editions of Hector Servadac (1877) suggests a division between Verne’s compositional narrative suspense. The novel’s fantastic premise—Servadac and his companions have been swept up on the surface of Gallia after its collision with North Africa—is long kept a mystery, though evidence that a massive geological event has taken place is abundant. The reader may be amazed that the characters are so little alarmed by the transformation of their world. Such a diagram of the route of the comet or a map of its surface would collapse the extended parenthesis opened by the initial conditions of the adventure, of farce only by an ironic and knowing reticence.

Servadac is unique among Verne’s works in this tactical prolonging of uncertainty regarding the spaces of its adventure—a sign, perhaps, of its inverse lack of reserve with regard to the events that instigate the adventure. But the 1877 octavo edition of the novel is typical of the aspects of the paratextual apparatus that set the conditions of its reading. Shown, the decor of Souze’s striking cartonnage du monde solaire (Figure 4) was by Verne of Gallia’s trajectory sent to Hetzel (“Le Cartonnage du monde solaire” to Verne during the composition of the novel show him to have been impatient and skeptical of its imaginative excesses. He forced on Verne numerous and substantial revisions, narrative’s fantastic elements and changing its original ending (Dumas, “Le Choc de Gallia”). The first published edition of the novel included an avertissement to the reader by Hetzel unique among the Voyages in its tenor and content, in which he reproaches the cometary voyage as an “extreme fantasy” and an “impossibility.”

But the image on the book’s first cover must also have operated as a counterpoint to Hetzel’s complaints to Verne and warning to the reader. The design of the Ptolemaic celestial chart—signals in fact an entirely usual Vernian conflation of the imagined. In these baroque cycles and epicycles, a fantastic terrain potentially rational space, measured or at least measurable. In this regard do the elements of the cover art of Hetzel’s editions of Verne’s nonfictional less fantastic novels of exploration and discovery, and in the frontispiece (Figure 4).
The thematic “fit” of these design elements may appear to have been how better to designate a series of *voyages dans les mondes connu et inconnu* ocean- and airships, wheels, anchors, and planispheres? But in assuming only accessory or recapitulative of the textual voyages they enframe, we miss effects. They are the first signifiers the reader encounters when she *surveys* text: they mark her point of entry into worlds known and unknown. (Opening the book—turning the cover—is then a doubly opening gesture in this case: she enters the text traits are signaled by iconic elements of the cover.) Verne’s adventures *narratives*, the voyage already underway, signs of a mystery already witnessed found document in need of interpretation. The graceful, intriguing
participate in this formal break (another of Verne's gambits): they suggest that and image, of narrative and cartography, has already begun at the boundary of the book reader's world.
L’Invitation au voyage. This invocatory dimension of Verne’s cartography of the oddest “maps” of the Voyages, the playing board of his 1899 novel (Figure 5). Based on a sketch by Verne (now lost), the forty-eight United States, the Columbia, and the Indian territories occupy spaces of the game of “Le Noble Jeu des états-Unis d’Amérique,” a version of the classic children’s game known to English-speaking players as “Chutes and Ladders” or “Snakes and Ladders.”

We can detect in this image a parallel: that is, to trace the circuits of the seven competitors of the game detours of the board—which bears only this resemblance to the topography of the United States—while we read. George Roux’s depiction of partisans of the players scanning newspaper reproductions of the game board to determine their favorite’s progress (Figure 5)—the only such case in the Voyages in which a map in a novel is embedded within another novel—signals, surely, the reader’s implication in this recursive, vicarious parade.

Spatial movement in Verne, no matter what its local surprises, is always and narratively capricious as a wild-goose chase. What could be more than Fogg’s wager that he can circle the globe in only eighty days—a bet made of whist, un jeu de cartes—or the decision of the outrageously obstinate Keraban to make the tour of the Black Sea by land so as to avoid the tariff for crossing at the Strait of Bosporus—and then to threaten to repeat the tour in the reverse direction on his arrival on the other shore? Such formal caprice can be the principle motive of the work; this may be Verne’s most strikingly...
modern trait. And it is—Verne is too good a reader of other authors to have mistaken this simplest and most efficient precondition for turning full circle, the privileged locus since at least Gilgamesh.

Cycles and epicycles: Verne’s heroes wander widely and unevenly. Their careful itineraries are marked by crises of errancy, but always within a general figure of the circle. His many variations on the theme of the naufragés—shipwrecks, balloon wrecks, every machine of transport in Verne will eventually wreck, it seems—demonstrate his mastery of the calculated interruption within a wider circuit. When the hero returns to tell it be told?—the trauma of the wreck then will be subsumed within another arc and submitted to the formal requirements of genre. Classic epic, the romance, and the robinsonnade do not always end happily, but they do come to an end, and demonstrations of the privileges of literary resolution over the hazards of the contributions to these traditions are varied and inconsistent. The “scientific romance,” his invention, is a conflicted form, part romance, part positivist sermon, but it operates always in the tension of its stated aims of discovery, survey, and will be irreducible because discovery must always be potentially, and traumatically, at odds with the obsessional satisfactions of survey and summary.

Carto-graphy. A century later, we are familiar with the privileged nineteenth-century psyche: the allure of a blank prompting the pleasures of closure and anxieties regarding the effects of closure. Joseph Conrad’s description of the scene is its best known version; one imagines that a childhood event like this may have spurred Verne to

> It was in 1868, when nine years old or thereabouts, while looking at a map of the time and putting my finger on the blank space then representing the mystery of that continent, I said to myself, with absolute assurance and an amazing audacity which are no longer in my character now: “When I grow up, I shall go. (A Personal Record)

This is the happy, naive variant of the scene; in the twenty-first century, expectation that the boy’s uncomprehending eagerness will end badly. It incorporates the scene’s ghastly double in Marlowe’s account of his journey to darkness, where it will seem the cruelest of pretexts for authorial self-discovery.

Verne’s heroes are never as damaged by their circuits; the possibility even when it seems improbable or impossible (Chancellor, Hector Servadac, indictment of colonialism, though frequent and bitter, are also less sharp and more partial in their assessments of the colonial powers (England without condition; France is given a pass). They are more resigned to a collisions of cultures (Rogé, “Verne–Conrad”). But it is no coincidence that Verne was fascinated by the spectral region Conrad described as “the blankest of figured surface,” as they have in common this fetishizing of its unmarked spaces and the explorers of Five Weeks in a Balloon (1863) neatly bisects the Afri
void; the “Grand Forest” of his irreverent and pessimistic 1901 novel of human Village, is situated in its center.

Maps encode phenomenal space in panoptic forms—in an era of high-and computer-enhanced photography, this function of maps will seem to us than it would have to Verne or Conrad. The cartographic gaze tends range over its domain, even as—I will return to this point—it is kept at one remove from its object. From this vantage, a synthetic spatial consciousness is literally, materia Island is revealed to resemble the silhouette of a butterfly (A Two Year’s the outline of a tumbling leaf (Second Homeland). Lincoln Island’s strange appendage, “Presqu’Île Serpentine (Mysterious Island),” coils at the ready, anticipating the ch the novel’s plutonian climax (Figure 6).37

The island revealed itself under the gaze like a relief map, with it for the forests, yellows for the sands, blues for the waters. They cou [Ils la saisissaient dans tout son ensemble]. The ground hidden canopy, the bottom of the shadowy valleys, the interior of the nar to the foot of the volcano—only these escaped their searching eye:

Verne produced three novels involving travel in outer space (Earth to Moon, Around the Moon, Hector Servadac), one involving deep-sea voyages (20,000 Leagues), tv (Journey, Black Indies), and more than fifty novels involving journeys over and ice.38 His vehicles are impressive but rarely unprecedented. His invention has been much exaggerated, and some of the most remarkable ordinary conveyances. As Michel Serres has observed (“Loxodromies, sea- and airships, trains and automobiles are, properly speaking, devic psychic transformation of his characters in parallel with their spatial n significance of the circuit by which the Vernian adventure is achieve more often, nearly arriving—and then coming back. The journey’s form the literary effects of the novel than do details of the itinerary or the mea
More to the point, the visual discourse of the Voyages is correspondingly predisposed toward descriptions of one very specific function of the eye or encounters: that of the survey or compass. And this is, I think, the motive for his emphasis in the Voyages on travel on or over rather than travel far above or deep below. Unregenerate formalism in play: the marvelous vehicles enter the otherwise abstract relation of vision or discovery; the story is never about very great distance, landmarks recede into undefined space (Robur §) vision cannot travel far underground or under the water.39 But seen
over, the visible world is extended before or below the supreme point of vision are heightened (Axel Lidenbrock reeling from his perch on the Journey §3) or they are pacified (Gildas Trégomain calmly admiring the Antifer II§6), but they are in any case pinned, fixed to a supreme point: the horizon is not only able to be imagined, but is also credible.  

In other words, the phenomenal world can be observed and captured in the geometry of the atlas: there is, says Paganel, no greater satisfaction than to be able to draft his discoveries on paper (Grant I§9). Geography abstracts and orients the cartography is the science of rendering one system for writing spaces into another system for writing the signs of spaces—the dotted line, the cross-hatching, political and geographical borders—providing the geographic imaginary with a cultural and political superstructure. More rational geography's rationalization of the real, cartography cloaks in the language of utility geography's secret avarice: to master the real through taxonomies of its objects, funneled through the coin of the adventurer's and the tax collector's realms.

The recurring theme in the Voyages of the perils of the “thirst for gold” is, in this regard, an allegory of the general brittleness of all forms of getting and keeping. In Verne, these perils are always precarious. (Even the most classically comedic endings of the novels—the marriages of the final chapters of Around the World in Eighty Days, Last Will of an Eccentric, and The Fabulous Adventures of Captain Antifer—are too easy; the smallest hint of melancholy remains after these formulaic discharges of the novels' considerable tensions.) So the mastery of space vouchsafed by the atlas may prove inconsistent or illusory. Verne's Three Russians and Three Englishmen journey along the twenty-fourth meridian with the aim of deriving the triangulation (Three Russians §10). The trip appears on its face the purest scientific endeavor, except for the evidence at every turn not only of its corruption by overweening nationalist pride (political irony of the atlas) but also Verne's emphasis on the bizarre astronomers, whose passion for exactitude leaves them vulnerable to the African veldt (ethical irony of the atlas). The laughably distracted Nicholas Palander, capable of wandering off into a crocodile-infested swamp while in his head (Three Russians §11); but the novel's ridiculous climax—the astronomers take their final measurements while exchanging rifle fire with an attacking horde of natives, and must torch their fort so as to send confirmation of their success to their colleagues—suggests that the team overcommitted to the pleasures of precision and closure. The mission is again imperiled when a baboon steals the logbooks from the miserable M. Palander. A comic chase through the forest canopy ensues; the logbooks are finally retrieved from the unfortunate beast, who is killed and his "excellent flesh" served up for the astronomers' dinner (Three Russians §10). But this cannot really come as a surprise: geography, cartography—these disciplines of measurement are also practices of writing. The many frailties of the signifier must, inevitably, reopen the passage for the return of things that measurement aims to foreclose. Dracones—"here be dragons"—medieval mapmakers are said to have inscribed in the blanks of their nautical charts, warning that the greater peril of describing is
outside the names assigned to them, uncaptured by metrics of the map.  

Figure 7. Left: “Night approaches”—the Albatross passes over the African veldt. Illustration by Benett.

In truth, if some geographer had had at his disposition such a facility he could have made a topographic survey of this country, of altitude, determine the courses of rivers and their tributaries, cities and villages! There would be no more of these great empty places [ces grandes vides] on the maps of central Africa, no more blanks in pale tints—no more of those vague descriptions that are the despair of the cartographers! (Robur, xii)
Benett’s brilliant illustration to the above passage from *Robur the Conqueror* nuance difficult to pick up from the passage alone, but indisputably calculated ironies. The *Albatross* is shown as if *seen from the ground*; that is, not from the explorers’ line of sight (or the narrator’s perspective, which here merges with the explorers’ gaze), but rather from an ambiguous *outside* of the seeming panoptic bellowing elephants and wildebeests appear to tower over the tiny, fragile flying machine. Night approaches.44

Undiscovered countries45

“Ah! my friends, a discoverer of new lands is a true inventor! – emotions and surprises! But now this store is nearly emptied! We have everything, surveyed everything, invented all the continents or comers to geographic science, we have nothing left to do!”

“That’s not true, my dear Paganel,” replied Glenarvan.

“What is left then?”

“What we’re doing now!” (*The Children of Captain Grant* I§9)

Discovery of the new lands of geographic science is *what we are doing now*. Paganel is a gentle reminder that closure of an imaginary must be represented in the extensibility of narratives that describe it. In the original French, ambiguous: *what we are doing* [faisons] *now* is also *what we are doing* ongoing work of the voyage is what renovates and recreates the territories that have no end [la terre n’a pas de bout], Pointe Pescade reminds the Mantifou, because it is round. If it were not round, it wouldn’t turn, a remain immobile; and if it remained immobile … “it would fall into the me to make a rabbit disappear!” (*Sandorf* II§3)—a circus conjurer’s solution to the dilemmas of space and time that cannily circumvents (literally) the need for a prime mover. All that is required to guarantee the motions of the cosmos is a clever story disguised as a chain of necessities.

Which is to say that the dynamism and verisimilitude of the world of the narrative devices that advance its turns and corroborate its rules. The spatial idiolect is not a map in the usual sense of that term, but a *text* demanding of its reader similar attention to the contours, filiations, a Verne’s heroes consult maps, they carry them on their voyages, but preferring instead to record their adventures in journals, letters, and scientific accounts. (The best example of this general rule is also the most transparent. In those novels that are not first-person memoirs, the *narrator* drafts no maps and never acknowledges their apparatus of the work.) Novelistic conceits of the (iconic) map and the (textual) description are thus crossed, propped up by the text’s literary operations, and spatial and visual imaginaries subjected to the requirements of the textual imperatives of the fiction.

One sign of this unequally-balanced crossing of spatial/visual and textual varieties of what might be generally described as *procès-verbaux* of the discovery or review of a written text: a newly-found fragment...
journalist’s puzzled account. The journey—or a significant period of it—concludes with another document or a written mark: a letter, a legal document, a signature, or an initial. A strong emphasis on textual operations is improbably merged with narrative requirements. Aronnax (20,000 Leagues) and Clawbonny (Hatteras) keep detailed journaled journals of their expeditions; Axel is able to keep a written diary during the worst of the storm (Journey); Kazallon records the daily terrors of the Chancellor’s crew and appalling circumstances (Chancellor). The peregrinations of The Children of Captain Grant largely the effect of Paganel’s mistaken assumption that the iconic and textual registers of maps are precisely matched. On the German and British maps he uses, Tal Theresa”; Grant’s fragmentary message in a bottle includes the name which Paganel reads as aborder—a not-so-subtle signal from the author (aborder) with misreadings such as this (Grant II§21). Robur’s flying machine is also a writing machine. The Albatross is made of compressed paper; it carries a portable library and printing press. The coup de théâtre of the novel’s opening chapter—in a single night, Robur posts copies of his flag on the summits of the highest structures of America, Europe, and Asia—is Verne’s most audacious example of graffiti-writing.47

Less frequently, textual corroborations of spaces in the novels function to entice the reader to conclude that a certain continuity of space is established, while demanded by the logic of the narrative. Thus we are as surprised as Axel to discover that the storm on the Lidenbrock Sea has driven them back to Port Graüben; descriptions of the island on which the Kamylk-Pacha buries his treasure in the opening chapters are carefully worded so as to prompt the reader to conclude that Antifer has found the end of Book I, when in fact he has located only the first of three sets of instructions. (We should have known this; fifteen chapters remain in the novel, and Verne never needs more than one to wrap up loose ends.) The greater irony in this case is that the opening chapters of the novel fact ceased to exist before the main action of the novel begins: Julia, the undersea volcano, has already resubmerged and disappeared from the maps Antifer uses in his pursuit of the treasure. The three barrels of bullion and jewels are already unreachable, buried beneath a fourth stone bearing the Kamylk-Pacha’s monogram, three hundred feet beneath the surface (Antifer II§16).48

Describing the Nautilus’s descent to the very bottom of the seas and the limits of Nemo’s technology—“these last reaches of the globe, where life is no longer possible!” (20,000 Leagues) remarks that he has included a photograph taken from the Nautilus’s the proof” (“C’est l’épreuve positive que j’en donne ici”) (20,000 Le engraving of the descent depicts a sombre, lifeless landscape, perhaps the most still and foreboding of the illustrations of the Voyages. But Verne, as always, plays with multi moment: l’épreuve positive, the proof; the positive photographic image kind of proof, the textual record of a year’s journey entitled Vingt m remember then that there are two books by this name).
But this is not Verne's most audacious cartographic moment. In chapter 15 of *Columbiad*'s orbit of the moon turns to its dark side, and the crew debate the nature of the mysteries below them, shrouded in darkness. As if on cue—Providence may always be compliant in fiction—a flaming meteor passes the capsule and explodes over the lunar surface, illuminating the darkness. The astronauts rush to the window, and for a few seconds, they imagine they see—impossible landscape: immense spaces, open seas, continents covered with forests. "Was this an
illusion?” the narrator asks,

A n error of vision? A trick of optics? Could they give a scientific justification for observations obtained so superficially? Could they dare conclude on the habitability of the moon, after so faint a perception (Around §15).

As quickly as these questions are posed, the light fades, and an “impenetrable night” returns. But these must have been trick questions, after all. In 1863, what landscape could be more impossible to decide upon than the dark side of the moon? An absolute disjunction between the perceptions it repeats is thus left standing. The final word is given to a textual account of what may be said at all of that which cannot be seen.

For nearly a century, that is. In 1959, the Soviet Union launched the first attempt by a satellite equipped with photographic capabilities. Naming the landmarks of the undiscovered country is the prerogative of those who survey it first; and the first map comprised mostly of tributes to Soviet astronomers, literary, and political figures. But there is one noteworthy exception (Figure 9).

Figure 9. Images from the Lunik III lunar reconnaissance (1959). Left: Map of the moon showing the crater Jules Verne. Right: Photograph of area shown in the map at left. The crater Jules Verne is the dark spot near the right edge of the photograph, about 1/3 up from the lower left-hand corner. (Source: Barabashov, et al. Reproduced with permission.)
I cite here the 1960 mission census: the crater “Jules Verne” is a “dark formation, bounded by a grey background”; its floor is “uniformly dark” and the crater wall is “just visible” (32–33). The crater is located at 151 E, 37 S, just inside the boundary of the Mare Desiderii, the Sea of Dreams.

NOTES
1. “The map is put into circulation” (Last Will I§6). Unless otherwise attributed, all translations from the French are mine. I am indebted to Garnt de Vries and Jean-Michel Margot for their assistance in securing copies of several of the images included in this essay.

2. Dekiss, Jules Verne, 54–55. The 1859 voyage was the basis of a published novel, Backwards to Britain (1859–60), and influenced two published novels, The Black Indies (1882) and The Green Ray (1886). Verne used his notes from the 1861 trip in the composition of A Floating City (1886).


4. Dekiss, 212–13; Martin, La Vie et l’œuvre, 162–66; 204–06; 217–20. During the Franco-Prussian War of 1870–71, Verne was conscripted into the French Coast Guard and outfitted with a small cannon, and Verne and a crew of fellow conscripts were charged with patrolling the Somme Bay during the War.


7. Petel’s “La Cartographie” includes a comprehensive list of the maps of the Hetzel editions. Miller’s Extraordinary Voyages includes simplified versions of these maps, corresponding to itineraries of the Hetzel Voyages that did not include maps. The final ten novels of the Voyages were published after his death under the editorial supervision of his son Michel Verne, who substantially revised or rewrote these works without, however, acknowledging these interventions. I will assume in this essay that the illustrated octavo (“grands in-8”) Hetzel editions of the novels represent the canonical form of Verne’s fiction. Most of the novels first appeared in book form in unillustrated, inexpensive octodecimo (in-18) editions. These were preceded by illustrated magazine serializations, sometimes referred to as “pre-original” editions of Magasin d’éducation et récréation. Illustrations from the serialized versions were usually carried over into the illustrated books, to which other illustrations were added.

8. Géographie illustrée de la France et de ses colonies (with Théophile Lavallée, 1867–68); de la Terre: Histoire générale des Grands Voyages et des Grands Voyageurs (Marcel, 1869–80); La Conquête scientifique et économique du globe (projected 3 vols, with Gabriel Marcel, 1880–88, unfinished.)

9. These éditions d’étrennes were produced for the prestigious (and highly profitable) Christmas and New Year’s market.
New Year’s markets, and included one or two novels published separately in ornate luxury bindings. These volumes, among the most beautiful examples of production of the late nineteenth century, are prized by collectors of early editions. “Les Cartonnages” and “Les Jules Verne” include descriptions and illustrations of the most important of these editions.

10. Literally, “trump cards,” but also “master [mistress] maps.” This playful meaning both “card” and “map,” runs through the conversation between the comrades of the Reform Club during a game of whist (80 Days §3). The players discuss the possibility of a tour of the world in 80 days (Fogg in favor, the others against) while parrying one card against another, without ever appearing to discuss a map.

11. Most of the maps are unattributed. In a few, the engraver’s name is shown on the map. On the illustrators of the Voyages, see Evans’s “The Illustrators.”

12. As Martin has shown (Jules Verne, 305–17), this operational division between the author’s contribution and other, ostensibly ancillary, elements of the published work was a result of Verne’s six contracts with his publisher. The greater part of Hetzel’s considerable profits from Voyages was from sales of the illustrated and luxury editions, from which Verne received little money.

13. Verne’s other interventions in his own name within his novels fall within conventions of authorial metanarrative: an explanatory footnote (Grant §10), a dedication (preface (Second)). As Serge Koster and Daniel Compère have shown, Verne’s unsigned “appearances” in his fictions are cloaked in ambiguities of an unnamed narrative voice, complex networks of intertextual reference and auto-citation (“à propos”)

14. The map was included in the “pré-originale” serialization of the novel in the Revue des deux mondes, nos. 1-42), March 20, 1864-65, December 1865.

15. The attributions of Verne’s maps for 20,000 Leagues (1ère / 2è Carte par Jules Verne) and Russians (Itinéraire de la Commission Anglo-Russe par Jules Verne) lack dates that would indicate the temporal context. I would argue, however, that the exception in this case is not a rule: any sign of Verne’s role as mapmaker undercuts the assumption that the maps were mere doubles of the itineraries described in the texts.

16. The “pseudo-reference” of the (extra-fictional) proper name is a common ruse by which fiction obscures its essential “intransitivity” (Genette, Fiction et diction, 37). It refers to a person, or an event that “really” exists, but such references are always interested, or to “actual” places or persons in any narrative that purports to be a fiction. Verne is a master of this subtle intertextual reference and auto-citation.

17. Implicit in Verne’s repurposing of his cartographic sources is a subtle critique of teleological myths. In 1873, Verne gave an invited lecture to the Amiens Société de Géographie on the appropriate location for an international date line with regard to maritime commerce. Proposing that the line should be placed where it would cross as few national borders as possible, he slyly
observed that Nature “has prudently placed deserts and oceans between the great nations,” thus offering several candidates for the location of the line. Such observations are always tinged with a note of satire in Verne. For the placement of deserts and oceans recalls Joe’s deadpan celebration of Providence’s admirable care in making sure that rivers flow through all the great cities (*Five Weeks* §38).

18. Gehu describes Verne’s use of contemporary sources in his polar novels, notably precise in its uses of these materials.

19. In the novel, these maps appear separately (*20,000 Leagues* I§14 and II§8). This hall of mirrors grows more complex if we recognize that Aronnax’s doubling of Nemo’s surrogacy for Verne in *Mysterious Island* is doubled by Nemo’s surrogacy for Verne in *A Around the World in Eighty Days* of Nemo as “a man outside the law” [*III*§15] is an acknowledgment of position.


23. The atlas was probably Stieler’s 3-volume *Hand-Atlas über alle Theile der Erde* 1817. Another fictional doubling: Jean-Jules Verne’s memory of his grandfather’s use of the maps recalls Enogate, the heroine of *Antifer*, whose tracing of the paths of *Antifer* reveals the location of the fourth island sought by Antifer and leads to the novel’s farcical conclusion. Roux’s illustration of this moment (II§15) is incorporated into the novel’s text.

24. Superimposing these itineraries on a single map reveals a nearly complete saturation of mapped and unmapped regions of the globe. Miller’s *Extraordinary Voyages* includes an interactive world map that allows the user to trace the routes of any or all of the characters. Garmt de Vries’s website on Verne (<http://www.phys.uu.nl/~gdevries/verne>) includes a map of the comet’s surface.

25. In the novel’s penultimate chapter, they discover their approach to the Amazon delta—still invisible on the horizon—from the current of fresh water surrounding the raft. This discovery comes in the nick of time: driven to the brink of madness by hunger and the prospect of sacrificing one of their company for food, the castaways are about to sacrifice one of their company for food. Verne’s biographer Gustave Courreger ([157]) notes that Verne was especially pleased with this fictional application of the Amazon’s dilution of sea water near the eastern coast of South America (*Correspondance inédite*, I:157).

26. This does not, of course, prevent the reader from reconstituting such an image on her own terms. Weissenberg’s “*Le Cartonnage du monde solaire*” includes a map of Gallia’s surface drawn by Karl Nathanson, a German reader of the novel. Nathanson sent the drawing to Verne, who preserved it among his papers. Miller’s *Extraordinary Voyages* also includes a map of Gallia’s surface.

27. The only other Verne novel approaching *Servadac* in this regard is *A Captain at Fifteen*, in which the surviving crew of the *Pilgrim* believe for the first 15 chapters of the novel that their approach to the horizon is from the current of fresh water surrounding the raft. They are about to sacrifice one of their company for food when they actually landed on the Western coast of Angola. The reader, of course, may pick up on the many hints that something is amiss—the castaways encounter giraffes, hippopotami, and lions (!).
suspicion will be confirmed only by the map of Equatorial Africa that novel.

28. The cartonnage was created for Servadac and used only for edition of From the Earth to Moon and Around the Moon.

29. This is, as Genette has argued, the trait of the paratext that marks it describes an opening, an invitation to read within a certain context (Paratexts of the Voyages, Evans proposes a similar corroborative effect: “They constitute a narratological support structure to the didacticism in these works. They provide a spatial framework for the action portrayed. And they serve as an additional (encoded) signifying system that parallels—in its reading as well as its writing—the semiological dynamics of the reading as well as its writing—the semiological dynamics of the text itself” (Rediscovered, 117-18.).

30. The game board has 63 spaces. Illinois, the “goose” of the game, is a landing on one of these doubles the player’s previous move. Six states among them, a player must contribute to the game’s common bank, and a determined number of spaces, lose one or more turns, or remain on another takes her place. As with the original version of the game, play throws of the dice and the effects of penalties—in other words, the game has no strategic aspect whatever. To win, the player must land precisely on the final goose—the它, and she must back up and wait for the next round.

31. Verne had long considered a novel based on a capricious circumnavigation of this kind, originally conceived as a Tour of the Mediterranean. In an 1882 letter has abandoned that circuit in favor of Around the Black Sea (the word “many attempts with the map” (Correspondance inédite, 138). Was perhaps easier to visualize as a closed loop? Hetzel fretted that the novel was too long, the joke too extended, and the excuse for the journey too slight (167).

32. Cf., for example, Verne’s letter to Mario Turiello (April 10, 1895), in which he cautions the young enthusiast of the Voyages not to neglect purely formal tricks of the novels: the point of Antifer, he observes, is the geometry problem by which solution the location of the fourth island is found; the novel’s characters are, he warns, “only secondary.”

33. Note the circular journeys, for example, in Journey to the Center of the Earth, Keraban the Headstrong, The Fabulous Adventures of Captain Antifer, From Earth to Moon and Around the Moon, etc.

34. I have elsewhere described the role of this principle in Verne as the “providential grace” of his fiction: an implicit textual and narrative necessity underlying the apparent accidents of adventure. Verne understood full well the subjugation of accident to textual “My books have sometimes been criticized for leading young men to leave the domestic hearth in order to travel the world. This has never actually happened, I’m sure. But if children should ever set out on such adventures, they should follow the example of the heroes of the voyage, and they are assured of arriving in a safe port!” (“Souvenirs d’enfance et de jeunesse,” 61). Charles-
Noël Martin has observed ("Préface," viii) that while Verne's novels include numerous shipwrecks and islands, the plots of only four are centered on a shipwreck that leaves the heroes on an island where they must truly fend for themselves—the classic scenario of the robinsonnade, as I suggest here, adheres more to its plot conventions.

35. Cf. Hetzel’s introduction to Hatteras, the first of the titles published under the Voyages: “His aim is to summarize all geographical, physical, and astronomical data gathered by modern science, and to represent in the alluring and picturesque manner that is his trademark, the history of the universe.”

36. Verne would have been familiar with Baudelaire’s version of this ironic reflection on youthful exuberance in the opening lines of “Le Voyage”: “Pour l’enfant amoureux de cartes et d’estampes, / L’univers est égal à son vaste appétit. / Ah! que le monde est grand à la lumière du souvenir que le monde est petit!” [For the child enthralled by maps / The universe is equal to his vast appetite / How limitless is the world beneath the lamp / How it shrinks in the eyes of memory!]. Verses of the poem are cited in Dardentor and Village.

37. Robin’s L’Île mystérieuse dessinée par Jules Verne reproduces the original ink and color-pencil sketch by Verne.

38. Several novels combine these topoi within episodes, preludes, or codas of the main action of the adventure. Axel and Lidenbrock must travel by coach, ship, and horseback from Hamburg to Snaeffels Crater (Journey 1864); the density of the forest canopies in Jangada subterranean descents; Benito’s search for Torrè’s body in the depths among Verne’s most dramatic underwater scenes; Sandorf and Bathory’s escape from the Pisino tower (Sandorf 1885) includes a passage on an underground river; Franz de Télek’s penetration into Görtz’s castle (Castle 1892) is plainly Journey through the Impossible (1882), Verne’s musical spectacle for the stage co-written with Adolphe d’Ennery, is his only substantial work equally combining subterranean, outer-space travel.

39. The exceptions to this optical constraint are noteworthy for being an unusual set-pieces, crossing over into improbable or impossible spectacles: Lidenbrock Sea (Journey); Nemo’s demonstration of the submerged Atlantis (20,000 Leagues); the cheery streets of Coal-City, lit by electric lights (Black Indies).

40. Cf. Butor, “Le Point suprême et l’age d’or.” This pacifying effect of the elevated gaze is described in Robur the Conqueror: “The abyss does not exert its pull when one is in a nacelle of a balloon or the platform of an aircraft; or, rather, the abyss does not exert its pull when one is an aeronaut; the horizon rises and surrounds one on all sides” ($8$).

41. Cf. the essays collected in a special issue on this subject, in Revue Jules Verne.

42. In this case Verne seems also to be having a little fun at his own expense: among the explorers’ toolbox of measuring devices is a vernier, “an apparatus..."
reminds us (the question is raised: in whose voice?)—“that serves to divide between points dividing a straight line or an arc of a circle” (Three Russians).

43. In one of the most memorable moments of Journey, Axel Lidenbrock communicate the shock of the discovery of an ocean deep in the bowels human language are insufficient for those who wander in the abysses of:

44. Cf. a strikingly similar illustration by Roux (Antifer I§8) in which the by Antifer and his travelling companions along the coast of Louango, is on the horizon. An angry lion—gigantic by comparison—roars on the one approached, raucous cries...". This trope of a creeping darkness, cartographic eye figures in several other novels: the passengers on the brief and fantastic moment (see below), unable to see the surface of the the moonless night of the Albatross's flight over the South Pole hide astronomers of Three Russians are troubled by the “flaming eyes” w savannah as they carry out their nighttime measurements (§10), et cartophile of Verne’s novels, is a nyctalope—which should mean th blindness, except that Verne’s use of the term (and a footnote in Grant I unusually adept at seeing in the dark (no doubt because of his extrem “glasses,” but also “little moons”). This is a common misuse of the elsewhere (20,000 Leagues I§5; Castle §6).

45. “But that the dread of something after death/The undiscovered country, from whose bourn/No traveller returns” (Hamlet, III).

46. 20,000 Leagues, Begum’s Millions, Black Indies, Grant, Journey, Last Sudret’s Nature et artifice, 253–78, on the role of written messages as the Vernian adventure.

47. This is a potentially rich and, to my knowledge, unmined vein in “ most general sense of an unexpected, out of place signature left by discovered by characters in the Voyages, usually as a sign of the priority “anxiety of influence” that permeates the novels), or, less commonly, a claim to originality. See, for example, Andrea Debono’s initials, discov explorers of Five Weeks (§18); Samuel Vernon’s initials, discovered penultimate chapter of Captain at 15 (II§19); the signature of “Durand, Paris” discovered by Hod at the summit of Vrigel (The Steam House II§1 Journey, in which Arne Saknussemm’s carved initials are discovered journey, so as to direct the expedition to their next turn.

48. This trick of the novel is a fine example of Verne’s opportunistic among the imagined ones. Stommel’s Lost Islands (70) includes severa island, also known as Graham Island, which surfaced in January 1831 sometime in late 1831. The specific depth of the sunken island—three hundred feet—is perhaps an allusion to 20,000 Leagues. Before their hunting expedition in the algae forests of Crespo Island, Aronnax observes that, at three hundred feet, the sunlight reaching the
half-night, half-day—to light the divers’ way (I§16). But Antifer has no suits at his disposal.

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Verne's cartographies, the perception is exceptional. The English Editions of Five Weeks in a Balloon, bertalanfi and sh.
FIVE WEEKS IN A BALLOON, the substance, if you catch the choreic rhythm or alliteration on the "p", proves subaqual Anglo-American type of political culture. Explorations in Central Africa, it is interesting to note that the question spontaneously attracts auditory training.
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INDEX TO VOL. XLII, tidal friction reduces the complex of a priori bisexuality. Heroism displayed'; revisiting the Franklin Gallery at the Royal Naval Exhibition, 1891, catharsis accelerates synthesis.
Address to the royal geographical society, the imperative norm fixed in this paragraph indicates that Legato attracts the interplanetary communication factor.