Ephemeris and Celestial Navigation. Melville’s *Mardi* as Astronomical Metaphor

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If this book be meant as a pleasantry, the mirth has been oddly left out—if as an allegory, the key of the casket is “buried in ocean deep”—if as a romance, it fails from tediousness—if as a prose-poem, it is chargeable with puerility. Among the hundred people who will take it up, lured by their remembrances of Typee, ninety readers will drop off at the end of the first volume; and the remaining nine will become so weary of the hero when for the seventh time he is assaulted by the three pursuing Duessas who pelt him with symbolical flowers, that they will throw down his chronicle ere the end of its second third is reached [...]. (Henry Fothergill Chorley, 24 March 1849)

Henry Fothergill Chorley, a reviewer for the London Athenaeum, was very skeptical about the literary qualities of *Mardi* and *A Voyage Thither* (1849), and almost all the reviews of the novel have been lukewarm or harsh ever since. The book, which was a commercial failure from the start—“the sale in Melville’s lifetime averaged about twenty copies a year” (Foster 671)—“has been forgotten while lesser books have flourished. [...] *Mardi* has all the promise of imperfection” (Mumford 102). According to Chorley, only one percent of the readers were supposed to finish the book. This sequel to *Typee* and *Omoo* came as a surprise: even if Melville romanticized the first two stories of his adventures, he had really deserted from a whaling ship in the Marquesas Islands. The scope of *Mardi* was different, as he intended to write a novel, and an allegorical one at that. As he explains in his Preface to *Mardi*:

> having published two narratives of voyages in the Pacific, which, in many quarters, were received with incredulity, the thought occurred to me, of indeed writing a romance of Polynesian adventure, and publishing it as such; to see whether, the fiction might not, possibly, be received for a verity: in some degree the reverse of my previous experience.

> This thought was the germ of others, which have resulted in *Mardi*.

New York, January, 1849. (Melville 1998, xvii)
However, he did not succeed in convincing his editor John Murray, who wanted “factual” narratives. In response to the latter’s request, the beginning of Mardi remains a maritime novel (Gannier 2011a, 195) in its tonality. It is an ephemeris in the sense that, like a logbook, it tells the events of a journey day after day. As such, it could be a “continuum of adventure in an open boat, wild allegorical romance, and fantastic travelogue satire” (Foster 657), but it gradually turns into an eccentric and philosophical voyage, based on a mysterious travel all around Mardi’s archipelago—the endless search for the blond-haired and blue-eyed Yillah being interrupted by many long digressions. If one reads Mardi for the narrator’s love affair, one will feel terribly frustrated and disappointed by its very poor interest. Queen Hautia seems to be the archetype of a “femme fatale” in comparison to the virgin Yillah, but they are both equally implausible characters, whose intentions remain mysterious.

However, the narrator’s continual “rhapsodising” is not incompatible with a solid narrative construction, even if the story is allegorical. Melville admits, in his letters, to having written a novel which conceals its meaning:

> [It] is no dish water nor its model borrowed from the Circulating Library... It opens like a true narrative—like Omoo for example, on ship board—and the romance & poetry of the thing thence grow continually, till it becomes a story wild enough I assure you & with a meaning too. (Letter to Murray, Foster 660)

This meaning however is like Henry James’s “figure in the carpet”: the reader may be puzzled at first and then misled. Or he may be bored: most literary critics only consider the measure of its length and eagerly await an ending that never comes—or if they decide to read the plot as a sentimental one, they cannot but see Mardi as unbearably long and hollow, the “style of the whole being affected, pedantic, and wearisome exceedingly,” according to the Blackwood’s Edinburgh Magazine in August 1849 (Foster 665).

“Indeed, this plot seems all too superficial and derivative to warrant excessive verbiage expended upon it by Melville unless some substructure does exist.” (Moore 10) Three biographical elements are to be taken into consideration to identify significant networks of metaphors. First, Melville was a sailor, and as such was fond of admiring the sky and the stars during his night watches; at sea, stars and astronomical objects are the most reliable fellows and guides. They help sailors measure time and routes, and are their companions at night. As Moore shows, Melville found in nautical almanacs the path between astronomical observations and astrological patterns. Second, he stayed in Polynesia, had Maori companions aboard (the models for Queequeg in Moby-Dick) and knew some Polynesian words, although he spelled them approximately (in Polynesian as in English)—and although he probably mixed different forms of Maori language (Tahitian, Marquesan, Hawaiian, Samoan...).

Thirdly, he used to read a lot, as proved by the available, if not exhaustive, “check-list of books owned and borrowed” by Melville established by Merton M. Seals, which gives an idea of his eclectic library and testifies to the influence of travel literature, philosophical questions, classical writings for the shaping of his mind as well as imagination. A number of practical treatises to improve his knowledge about seafaring and stars need to be added to the “check-list” previously mentioned, in conjunction with contemporary astronomical events.

Obviously, in spite of his own skill and in spite of the readers’ wishes, he did not want to continue with “simple” saltwater narratives: “very possibly before
Thanksgiving 1847, Melville decided to change the basic nature of the work he was writing” (Parker 1996, 574). As he explains in his Preface to Mardi, he intended “to see whether, the fiction might not, possibly, be received for a verity” (xvii), drifting into the sphere of allegory, on his way to the world of Moby-Dick.

My contention is to show that the disregard for this novel may be mainly due to a misunderstanding between the readers’ expectations and Melville’s intentions as he presents them in his correspondence. Those who expect a love story are disappointed by its lack of consistency; those who are looking for an exotic adventure novel, like the end of a trilogy in the Pacific, find a purely imaginative and nonsensical story; those who like seafaring novels are quickly disappointed; those who want to follow a quest are better rewarded—but what is this quest about? Is he seeking a lost Paradise? Or does he intend to reference a multitude of contemporary events under the guise of allegory? “Critics,” as Jaworski argues, “have explored the multiple facets of Mardi, often questioning the unity of the work,” which Anderson calls a “literary omnibus” (Anderson 344). In this perspective, research has mainly focused on the various sources of numerous episodes, images, or texts (Jaffé), for instance ancient Greek and Latin literature (Ludot-Vlasak). Considering the impact of Melville’s training as a sailor, his interest in celestial phenomena, and his reading of fantastic travels to the moon, I suggest reading Mardi as a long reverie on the impossibility, for a human, to see comets or astronomical objects with slow revolution more than once. A comet like the one mentioned by Kepler in 1607 and identified by Halley in 1682 is only visible every 76 years or so. Consequently the majority of humans cannot hope to see it more than once in their lifetime, which confronts them with the evidence of their finiteness in relation to the history of the universe, the length of their existence being barely an instant in cosmic time measured in light years. This observation gives rise to an almost tragic feeling of the vanity of human life. In fact, considering that Yillah represents a comet whose passage the hero follows in the Mardian archipelago gives a possible interpretation key for the novel. One clue is that her mysterious name, which has given rise to so many suppositions, is a nearly perfect palindrome of the famous astronomer Halley.

**Mardi, a Story of Constellations, Planets, Stars, and Comets**

The narrators of Melville’s stories feel at ease at night-time. According to the wearer of the eponymous “white jacket:”

> I am of a meditative humor, and at sea used often to mount aloft at night, and, seating myself on one of the upper yards, tuck my jacket about me and give loose to reflection. In some ships in which I have done this, the sailors used to fancy that I must be studying astronomy—which, indeed, to some extent, was the case—and that my object in mounting aloft was to get a nearer view of the stars, supposing me, of course, to be short-sighted. A very silly conceit of theirs, some may say, but not so silly after all; for surely the advantage of getting nearer an object by two hundred feet is not to be underrated. Then, to study the stars upon the wide, boundless sea, is divine as it was to the Chaldean Magi, who observed their revolutions from the plains. (Melville 1855, 94)

Melville himself did observe the sky. Not only is the beginning of the romance a very traditional maritime novel, but it also remains partly biographical, as Mardi possibly...
picks up the story of his maritime adventures where they were left off at the end of 
Omoo.

Being a sailor “before the mast,” Melville had a feeling of freedom during his watch 
which he did not experience in daylight, and he endows his seafaring characters with 
the same aspirations, transferring his impressions to the young hero of White-
Jacket: “Only the moon and stars are beyond his jurisdiction. He is lord and master of 
the sun” (Melville 1855, 6, 32). Bowditch, whom Melville quoted in the first chapter, was 
the author of a very famous handbook, The New American Practical Navigator, first 
published in 1802 and still in use at the time of Melville’s writing, devoted to celestial 
navigation and to finding longitudes at sea. His ambition was to make computation 
accessible even to uneducated seamen, teaching a new method for computing lunar 
distances so that every sailor aboard could determine the ship’s position. However, for 
the mariner able to make a lunar observation,

it is a very fine feeling, and one that fuses us into the universe of things, and makes 
us a part of the All, to think that, wherever we ocean-wanderers rove, we have still 
the same glorious old stars to keep us company; that they still shine onward and on, 
forever beautiful and bright, and furing us, by every ray, to die and be glorified with 
them. (Melville 1855, 94)

In Mardi, the lexical field of astronomy is very present, proportionately to the 
importance of this theme in the novel. A succession of stars named in a row begins with 
the name of the boat: Arcturion. “This round-about way did the Arcturion take; and in 
all conscience a weary one it was” (4). The seamen on a whaling ship are once more 
bound to a round-trip: like stars on their orbit:

For, owing to the prevalence of the trade winds, ships bound to the n ortheast from 
the vicinity of Ravavai are fain to take something of a circuit; a few thousand miles 
or so. First, in pursuit of the variable winds, they make all haste to the south; and 
there, at length picking up a stray breeze, they stand for the main: then, making 
their easting, up helm, and away down the coast, toward the Line. (Melville 1998, 
3-4)

In fact, the mapping is quite accurate, and it is a recurring motif in Mardi and Moby-
Dick: a long distance on the chart is a long time for the cruise. Time is the measure of 
geography for seamen. According to Marr, “Melville’s artistic explorations similarly 
sought to position the (r)evolving planet in vertiginous space and time. His extravagant 
reckoning stretched across geographical latitudes into new hemispheres, but it also 
expanded along a vertical axis connecting the immensity of the stars above with the 
abyss of the oceans below” (Marr 188). However,

To his alarmed fancy, parallels and meridians become emphatically what they are 
merely designated as being: imaginary lines drawn round the earth’s surface.
The log assures him that he is in such a place; but the log is a liar; for no place, nor 
any thing possessed of a local angularity, is to be lighted upon in the watery waste.
At length horrible doubts overtake him as to the captain’s competency to navigate 
his ship. The ignoramus must have lost his way, and drifted into the outer confines 
of creation, the region of the everlasting lull, introductory to a positive vacuity. 
(Melville 1998, 9-10)

The Arcturion is then paradoxically losing the North. The whole adventure, from that 
moment on, is no longer a mere long and boring whaling trip. The ship becomes a small 
celestial object in the galaxy:

Ay, ay, Arcturion! I say it in no malice, but thou wast exceedingly dull. Not only at 
sailing; hard though it was, that I could have borne; but in every other respect. The 
days went slowly round and round, endless and uneventful as cycles in space. Time,
and time-pieces! How many centuries did my hammock tell, as pendulum-like it
turned to the ship's dull roll, and ticked the hours and ages. [...] We were going, it
seemed, to illustrate the Whistonian theory concerning the damned and the
godless—hurried from equinoctial heats to arctic frosts. (Melville 1998, 5)

The name of the ship, which he addresses in an apostrophe in the first chapter, is
phonetically similar to Arcturus, a very bright red star that will guide him on his
journey. From this moment on, the ship's journey will be directed by the stars and the
novel will be guided by this metaphor. As a result, with a lost captain, no wind, no
route, no whaling aim, no more markers in the sky, the romance is no longer a
maritime novel but veers into another plot or genre.

The ship's direction is first determined by the usual chart, but eventually the
protagonist is bound to another navigation system—based on “magical starlight. There
are those who in a strange land ever love to view it by night” (Melville 1998, 178). From
now on, the narrator's quest will focus on stars: the hero is no longer a sailor but a
navigator on the small boats he commands, and suddenly a discoverer of a marvelous
being he will save and free, before becoming himself a semi-God, Taji. The chart of
the earth has its replica in the sky: Arcturus, the Moon, the Sun, Orion, the Milky Way,
Andromeda, the Pleiades, Sagittarius, Cassiopeia, Sirus, Taurus, Rigiel, Betelgeuse,
Saturn, Perseus, Dragon, Lyre, the Crown, Alphard, Markab, Denebola, Capella, Cygnus,
Aquila, Crux-ustralis...

Part and parcel of the Mardian isles, they formed a cluster by themselves; like the
Pleiades, that shine in Taurus, and are eclipsed by the red splendor of his fiery eye,
and the thick clusterings of the constellations round.

And as in Orion, to some old king-astronomer,—say, King of Rigel, or Betelgeuse,—
this Earth's four quarters show but four points afar; so, seem they to terrestrial
eyes, that broadly sweep the spheres.

And, as the sun, by influence divine, wheels through the Ecliptic; threading Cancer,
Leo, Pisces, and Aquarius; so, by some mystic impulse am I moved, to this fleet
progress, through the groups in white-reefed Mardi's zone. (Melville 1998, 556)

After leaving the Arcturion, they sail on the Chamois—a goatlike bovid of which
Capricorn is an astrological representation. “Was not the sun a fellow-voyager?” (38).

With their crew—“the half-score of pagans” (4)—or the prominent companions of
Mardi, Melville as a sailor and Taji as the protagonist were aware of the Polynesian way
of calculating the route (Parsonson), according to the “Ru'a” and Pou, with determined
bright stars known for indicating the localization of some islands. Hokule'a (Finney) is
the Hawaiian name for Arcturus, which passes directly over this island. Polynesian
people had and still have very sophisticated representations of the sky chart
(Boulinier 279) and can navigate in the “Polynesian triangle” on canoes (some of them
called pahi or paki, almost as the Mardian “Parki”). Polynesians have a wide range of
islands that were already represented on the famous Tupaia’s map drawn on the
Endeavour for Cook. Melville was aware of the “aveia,” or star markers used by
Polynesians to determine their cruising, if not through his shipmates, at least through
Ellis’s Polynesian Researches (1829). Melville quoted Ellis in his 1847 preface to Omoo:

The natives of the islands were, however, accustomed in some degree to notice the
appearance and position of the stars, especially at sea. These were their only guides,
in steering their fragile barks across the deep. When setting out on a voyage, some
particular star or constellation was selected as their guide in the night. This they
called their aveia, and by this name they now designate the compass, because it
answers the same purpose. The Pleiades were a favourite aveia with their sailors
[...]. Although the Polynesians were destitute of all correct knowledge of the
sciences [...] they had what can be called a rude system of astronomy. They possessed more than one method of computing time; and their extensive use of numbers is astonishing, when we consider that their computations were purely efforts of mind, unassisted by books or figures. (Ellis, III, 168)

In *Mardi*, the leader of the expedition, however, draws up the navigation plan:

Media, on the beach, at eventide, when both light and water waned, drew a rude map of the lagoon, to compensate for the obstructions in the way of a comprehensive glance at it from Odo.

And thus was sketched the plan of our voyage; which islands first to visit; and which to touch at, when we should be homeward bound. (Melville 1998, 197-8)

Moreover, “the broad chest of Bello was the chart of *Mardi*. Tattooed in sea-blue were all the groups and clusters of the Archipelago” (476). But Tají’s “surprise at these things was enhanced by reflecting that, to the people of the Archipelago, the map of Mardi was the map of the world” (176).

As a result, as Taji travels around Mardi’s archipelago—or orbit—to make a complete circuit of the ecliptic, and after Yillah’s sudden vanishing, the object of the quest changes:

Oh, reader, list! I’ve chartless voyaged. With compass and the lead, we had not found these Mardian Isles. Those who boldly launch, cast off all cables; and turning from the common breeze, that’s fair for all, with their own breath, fill their own sails. Hug the shore, naught new is seen; and “Land ho!” at last was sung, when a new world was sought. (Melville 1998, 556)

The novel is interspersed with astronomical references, which, in spite of numerous digressions and fantasies, play a part in giving unity to the whole and provide a coherent reading grid.¹²

The Tradition of “Cartographic Novels” or Travels to the Moon

Is it possible that Melville sets the scene for his novel in a network of celestial metaphors? In fact, describing a new world somewhere in space, or travels to the Moon, is a well-known and widespread tradition: so did Lucien of course, but also Descartes in his *Traité du monde* et de la lumière:

Permettez donc pour un peu de temps à vôtre pensée de sortir hors de ce Monde, pour en venir voir un autre tout nouveau que je feray naître en sa présence, dans les espaces imaginaires. Les Philosophes nous disent que ces espaces sont infinis, & ils en doivent bien être crûs, car ce sont eux-mêmes qui les ont faits. (Descartes, ch. VI, 66-67)

For a short time, then, allow your thought to wander beyond this world to view another, wholly new one, which I shall cause to unfold before it in imaginary spaces. The philosophers tell us that these spaces are infinite, and they should very well be believed, since it is they themselves who have made the spaces so.

(Translated by Mahoney)

Cyrano de Bergerac wrote *L’Autre Monde ou les Etats et Empires de la Lune et du Soleil* (c. 1650) (*The Other World: Comical History of the States and Empires of the Moon/of the Sun*) and Sealts argues that Melville borrowed this book in 1849 while he was writing *Mardi*. Both narratives are said to be “comical,” but they are imaginative essays based on the travel of “philosophers,” chattering about different subjects, humorously and sensibly. The sun appears to be the philosophers’ homeland. Usually, the discussions between
the so-called philosophers are quirky, being a mixture of wit and serious matters. The genre is *spoudaiogéloion*, or serio-comic style.¹¹ Like Cyrano’s fellows, Tají’s three companions on the canoas on Mardi’s lagoon are actually “unrepentant chatterboxes,” sometimes to the point of logorrhea. This is one of the usual topoi of antiphilosophical satire. Diogenes chirped on the agora to make fun of philosophical nonsense, and he called Plato’s diatribes “catatribes,” that is, pun intended, “wasted time”¹² (Belin, § 19).

This means that *Mardi* is now difficult to read because such a literary model seems beyond measure.

It is worth mentioning two other narratives based on the same pattern. The first one is *Somnium, seu opus posthumum de astronomia* (1634), written by the famous astronomer Johannes Kepler. The “dream” contains the narrative of a journey to the Moon, called Levania. From there the traveler can see Volva, the Earth, with its two hemispheres (Kepler’s fictional story is structured in three concentric narrative layers). In the first chapter of *Mardi*, the narrator mentions his pensive mood:

I went aloft one day, to stand my allotted two hours at the mast-head. It was toward the close of a day, serene and beautiful. There I stood, high upon the mast, and away, away, illimitably rolled the ocean beneath. Where we then were was perhaps the most unfrequented and least known portion of these seas. Westward, however, lay numerous groups of islands, loosely laid down upon the charts, and invested with all the charms of dream-land. (Melville 1998, 7)

This beginning recalls some aspects of *Somnium* (*The Dream*). Harold Beaver has also observed that the title *Mardi* can be read as a palindrome: “I dr(e)am” without the “e” (Imbert § 25).

The other possible reference is *The Man in the Moon, or a Discourse of a Voyage Thither* by Francis Godwin (1638). The combination of the two titles can explain the subtitle of *Mardi* and its literary project. In a letter to Matthias Bernegger, on 4 December 1623, Kepler wrote:

*Lunarem Astronomiam [...]*, recudere cepi, seu potius notis illustrare. [...] Accedet ex Telescopii mei, quod nuper sum nactus, experientia, mirum et insolens augmentum de oppidis et aggeribus circularibus, umbrae consectaneae causa. Quid verbis opus ?

Scriptit Campanella civitatem Solis, quid si nos Lunae ? Anne egregium facinus Cyclopicos hujus temporis mores vivis coloribus depingere, sed cautionis causa terris cum tali scriptione excedere, inque Lunam secedere ? Quanquam quid tergiversari jubavit ? cum nec Morus in Utopia nec Erasmus in encomio Moriae, tuti fuerint, quin utriusque fuit apologistâ opus. Missam igitur penitus faciamus picem hanc politicam, nosque in amoenis Philosophiae viretis planè continea mus. (Poole, §4) ¹³

[... I began to work again on moon astronomy, or rather to clarify it with remarks. [...] looking [at the moon] through my telescope I observed recently a wonderful and remarkable thing: cities surrounded by walls, as can be seen from the drawing of shadows. Is there a need for more justification? Campanella wrote a *City of the Sun*, could I not write a “*City of the Moon*”? Would it not be great to paint the mores of the Cyclops of our time with bright colors, but to do so—you must be careful—leave the earth and go to the moon? But who has forced us to procrastinate? More in his *Utopia*, like Erasmus in his *Praise of Folly*, had to address many difficult questions to protect himself from censorship. So let us leave the vicissitudes of politics behind and stay in the fresh, green meadows of philosophy.

The Moon itself is an important part of *Mardi*: the “gentle planet” (22) is duplicated by “Maramma” (“marama” means “moon” in Tahitian), where pilgrims revere Oro,
“Spreader-of-the-Sky, and deity supreme” (346), a Tahitian God of War. But Maramma is only one step in the characters’ journey. They must go further and find the runaway.

Even the structure of the text is concentric, as in Somnium. In Mardi’s chapter dedicated to “Dreams,” the sailor accepts to act as Taji, a demi-god, and even turns into a celestial object:

But beneath me, at the Equator, the earth pulses and beats like a warrior’s heart; till I know not, whether it be not myself. And my soul sinks down to the depths, and soars to the skies; and comet-like reels on through such boundless expanses, that methinks all the worlds are my kin, and I invoke them to stay in their course. Yet, like a mighty three-decker, towing argosies by scores, I tremble, gasp, and strain in my flight, and fain would cast off the cables that hamper.

And like a frigate, I am full with a thousand souls; and as on, on, on, I scud before the wind, [...] Shoals, like nebulous vapors, shoreing the white reef of the Milky Way, against which the wrecked worlds are dashed [...] (Melville 1998, 367)

The links between astronomy and astrology, astronomy and literature, have frequently been observed since antiquity. Scholars did not clearly distinguish between physics, philosophy, and literature, and frequently resorted to romanticized stories to explain phenomena which are now considered as belonging to science. “During the half century when Melville was traveling and writing, scientific developments in geology, astronomy, and natural history quickened the Copernican dissolution of earthly fixity, reconceiving the earth as, in effect, a ‘loose fish’ in deep time” (Marr 188). As a matter of fact, it is in the 19th century that astronomy entered the field of popular knowledge, thanks to general public books (Weber 406). John Hershel published Outlines of Astronomy in 1833, Auguste Comte his Traité philosophique d’Astronomie populaire in 1844, Alexander von Humboldt Kosmos: Entwurf einer physischen Weltsbeschreibung in 1845 (translated into English in 1849), to mention only some of the works published before the writing of Mardi. The fact that astronomy was popularized at that time only reinforced Melville’s natural attraction to this subject.

An Allegorical Romance

Following this trend of studying celestial objects, novelists gave full rein to their imagination to write interplanetary voyages. Melville shifts from a plausible journey to an imaginary one, the allegorical meaning of which the reader must find, as the clues are scattered throughout the text. What seems to be imaginary expressions must paradoxically be understood literally. Taji and his companions travel in the orbit of a planet called Mardi, accompanied by satellites:

“Now, then, Babbalanja,” said Media, “what have you come to in all this rhapsody? You everlastingly travel in a circle.”

“And so does the sun in heaven, my lord; like me, it goes round, and gives light as it goes. Old Bardianna, too, revolved. He says so himself. In his roundabout chapter on Cycles and Epicycles, with Notes on the Ecliptic, he thus discourseth:—‘All things revolve upon some center, to them, fixed; for the centripetal is ever too much for the centrifugal. Wherefore, it is a perpetual cycling with us, without progression; and we fly round, whether we will or no. To stop, were to sink into space. So, over and over we go, and round and round; double-shuffle, on our axis, and round the sun.’” (Melville 1998, 460)

The route looks like the geocentric trajectory diagram Kepler determined. An ephemeris must be understood literally, as a table giving from day to day, or for other
time intervals, the calculated values of various and variable astronomical objects. Maxine Moore suggests that "Mardi, Melville’s third book, derives its name from the third day, Tuesday, the third month, March, and the third planet, Mars" (Moore 11), and that the pattern of Mardi is the Almanac, “as his figure of Time and Authority” (14), which gives Mardi’s narrative a zodiacal and astrological structure—until the discovery of Neptune.

Captain Cook had sailed to Tahiti to observe the passage of Venus: by setting the story of his novels in the Pacific, Melville reinforces the link between navigation and astronomical observation, based on the fact that the opportunity to see an intermittent celestial object can therefore be calculated and verified. In addition, Merrell Davis has argued that at the time when Melville was writing Mardi, astronomy was a popular topic. “Whether or not Melville heard these lectures he must have known them in the full reports that appeared in the New York Tribune” (Davis 67): Professor Mitchell of the Cincinnati Observatory gave six lectures on astronomy in New York in December 1847. Edgar A. Poe gave a talk on “The Cosmogony of the Universe” on February 3rd, 1848 (Davis 67). Another series of lectures was given by astronomer John P. Nichol in January-February 1848; he published them that same year under the title Views in Astronomy, and wrote The Stellar Universe (April 1848). In 1818, Bowditch completed the translation into English of the first four volumes of Pierre Laplace’s Traité de Mécanique Céleste. He also wrote three papers on the orbits of comets (1815, 1818, 1820). In 1835, the passage of Halley’s comet, which the astronomer first saw on the 16th and 26th of September 1607, was observed; in the first months of 1843 the “Great March Comet” was visible to the naked eye in broad daylight (Bortle). In 1843, Faye made another observation. Comet Biela was observed by Vico in 1845, and in 1846, it broke into two fragments that continued to be visible for three months, each with a nucleus and a tail. In short, from 1844 to 1848, half a dozen comets were recorded. Finally, in August 1846, the astronomer Le Verrier determined by calculation the existence of a new planet, actually observed a month later. It was initially supposed to be called Oceanus, but was officially named Neptune by the Bureau des Longitudes (La Souchère). In addition, three asteroids were observed in 1847: Hebe on July 1, Iris on August 13, Flora on October 18—three names of goddesses and flowers—after the comets Ceres, Pallas, Juno and Vesta, observed at the beginning of the century, and Astrée in 1845. Do they speak the language of flowers of Hautia’s messengers? Or are these visitors themselves regularly visible like celestial objects with flowers’ names? “Kepler declared that astronomers were ‘priests of God’ who relied on the Book of Nature to reveal divine order and regularity in the world” (Boner 590).

In his 1705 Synopsis of the Astronomy of Comets, Edmond Halley, Newton’s friend and publisher, used Newton’s new laws to calculate the gravitational effects of Jupiter and Saturn on cometary orbits. Having compiled a list of twenty-four comet observations, he calculated that the orbital elements of a second comet that had appeared in 1682 were nearly the same as those of two comets that had appeared in 1531 and 1607. The last one was observed by Johannes Kepler, who had written a treatise entitled De Cometis. Melville was aware of all these events (Davis 67-69). Davis suggested that Melville took Taji’s designation from a comet observed in October 1847, named Taije; it could be the origin of the name Taji, which refers to the sun: “white Taji, a sort of half-and-half deity, now and then an Avatar among them” (164). However, Zimmerman,
after Finkelstein, argues that there was no comet with that name, and that the mistake was due to a typographical error (123).

The expression “nameless affinities” in Mardi (158) may evoke Newton’s gravitational law stating mutual attractions between the planets, more than romantic love appeal, which calls to mind the human form of the blonde Yillah, who appears in chapter 43: “a beautiful girl […] looked sadly out from her long, fair hair” (136). She is unveiled like an idol on the waters. Her sudden appearance is a surprise for the hero who acquires a semi-divine consistency at her touch, and changes his name, after he has abducted her, following the quasi-ritual murder of her high priest; he will be pursued by the consequences of the broken taboo. Such a story seems to be a reminiscence of the mythological legends that explain the cosmogony of the Polynesian world as well as the world of the stars:

Did I dream?—A snow-white skin: blue, firmament eyes: Golconda locks. For an instant spell-bound I stood; while with a slow, apprehensive movement, and still gazing fixedly, the captive gathered more closely about her a gauze-like robe. […] She declared herself more than mortal. […] [T]here emerged from the mist the same radiant young Yillah as before; her locks all moist, and a rose-colored pearl on her bosom. (136-138)

Her appearance is that of a semi-divinity with the accessories of a comet; and after becoming increasingly pale, she disappears until her ghostly return in the ultimate chapter. Yillah, metamorphosed into a celestial object, will continue to haunt the characters who are looking for her and believe they see her everywhere like a specter.\(^{16}\) She represents an ambiguous figure: she is charming and fragile like a virgin offered as a sacrifice, but also sacred and potentially fearsome like a comet (comets are supposed to be accompanied by supernatural phenomena). She seems to be always present without being visible, and to elude not existence but human eyes.

The previous sections, especially Babbalanja’s final vision, take place in the ether and among the stars of the Milky Way.

We clove the air; passed systems, suns, and moons: what seem from Mardi’s isles, the glow-worm stars.

By distant fleets of worlds we sped, as voyagers pass far sails at sea, and hail them not. Foam played before them as they darted on; wild music was their wake; and many tracks of sound we crossed, where worlds had sailed before.

Soon, we gained a point, where a new heaven was seen; whence all our firmament seemed one nebula. Its glories burned like thousand steadfast-flaming lights.

Here hived the worlds in swarms: and gave forth sweets ineffable.

We lighted on a ring, circling a space, where mornings seemed forever dawning over worlds unlike.


Consequently, the network of metaphors becomes coherent in the Mardian or Martian world: “That Taji, Yillah, and Hautia are perhaps associated with comets, the sun, and the moon respectively, does not necessarily make them these astronomical objects on an allegorical level” (Zimmerman 125). However, while the name of Yillah seems meaningless (it is neither Polynesian nor Latin), it makes sense to read it as a palindrome: Halliy\(^{17}\)—phonetically, Halley, as Melville often uses verbal approximations.\(^{18}\) This name confirms, by a mirror effect, the spectral presence of the celestial object that Yillah constitutes: the one whose return can be calculated and is hoped for, the one with whom further conjunction seems so miraculous. In such a configuration, the love affair between the hero and the blonde virgin no longer has
anything to do with passion; it is merely the result of the attraction for celestial objects, and a structuring metaphor in the whole romance: “Round and round, a gleaming form slow circled in the deepest eddies:—white, and vaguely Yillah” (653).

Astronomers have always tried to calculate the cycle of the stars and the moment of return of comets: what is determined by calculation must then be verified and approved by observation: so the quest has no end. Yillah has vanished for the next seventy-six years, hence preventing the conjunction of the two comets.

Finally, the witch who disrupts the combination of the two orbits is Queen Hautia. I suggest reading her name after the New Zealand term Aotearoa, as “aotea” (“bright daylight” or “white cloud”). In this reading, she represents Yillah’s opposite. Very few stars and comets can stand the light: the observer must wait until night and search all over the dark sky. A human being has very little chance, given the length of their orbits, to see a comet that has passed: the quest remains forever unfinished. “The Quest is the Question posed to the System, the System undermined by the questioning power which is opposed to it like an incessant challenge.”

**Conclusion**

I have long thought that Polynisia [sic] furnished a great deal of rich poetical material that have never been employed hitherto in works of fancy; and which to bring out suitably, required only that play of freedom & invention accorded only to the Romancer & poet. (Letter to Murray, 25 March 1848; Davis 215).

Using a cipher to both hide and reveal one’s discovery is quite usual (Hallyn, Macherey). The astronomer Galileo, threatened by religious censorship, communicated his discovery of two satellites of Saturn in 1610 by sending an anagram to a fellow astronomer. His correspondent misunderstood the message, but surprisingly, this false solution also corresponded to another astronomical truth. This friend was Johannes Kepler.

All things considered, Mardi is not a “travelogue-satire” (Foster 657), because it does not really question this narrative model; it recalls the tradition of travels to the Moon or to the Sun (even if it was not understood as such). As Jonik argues:

>[It] is in Mardi that Melville first truly ventures out into the trackless seas of both the world of the mind and the world of matter. It is a “rich” book whose depths, as Hawthorne characterized it, would “compel a man to swim for his life.” It is a book of “fiery yearnings” that would, across Melville’s later writing, “their own phantom-future make.” (Jonik 185)

In his New Astronomy (1609), Kepler wrote: “the heavens are as full of comets as the sea is full of fishes.” Maupertuis takes up and amplifies this image in his Lettre sur la Cométe (1742): “Kepler compared the course of every comet that approached the earth to the path of a beached whale. ‘When a massive sea monster of this scale loses the way and wanders too close to shore and is left on dry land,’ Kepler wrote, ‘it is given a peculiar meaning’” (Boner 592). The comparison can explain the extent to which Mardi is a metaphorical stage between Polynesian adventures and Moby-Dick, based on the principle that Melville’s novels can be organized by a hidden principle and conceal a meaning that is different from the apparent plot. But it is also a vivid representation of a voyage round a large archipelago, compared to the complicated orbits of the stars and celestial objects:
As a student of Aristotle, Kepler had learned that a faculty was linked to a soul. In the case of plants, animals, and the nutritive and perceptual powers of human beings, a faculty fulfilled a particular function in a particular part of the body. Kepler noted, for example, that four faculties had been “given by nature to the body and its individual parts to account for nutrition, [namely] the attractive, retentive, digestive, and expulsive.” When Kepler assigned similar faculties to physical objects in the heavens, their conceptual basis in the living body was never entirely lost. Whether he accounted for a comet or another form of celestial mutability, the body proved to be a powerful metaphor that explained change in Kepler’s causal astronomy. (Boner 603)

Melville was very enthusiastic about the imaginary resources of astronomy, in connection with nature, moreover, as he wrote to his friend Hawthorne later in 1851: “get out of yourself, spread and expand yourself, and bring to yourself the tinglings of life that are felt in the flowers and the woods, that are felt in the planets Saturn and Venus, and the Fixed Stars” (quoted by Weaver 324).

*Mardi* is not a love affair. A set of evidence proves that Melville found a way to experiment with imaginative writing while pretending to connect the novel to the Polynesian diptych. Several networks of meaning can be explored in *Mardi*. However, he hides the real meaning under the paradoxical display of a series of clues, and as the characters travelling in circles on the ecliptic, the reader sinks into Melville’s vortex: “There is neither apogee nor perigee, north nor south, right nor left; what tonight is our zenith, tomorrow is our nadir; stand as we will, we stand on our heads […]” (Melville 1998, 460). Yillah the comet holds the compass.

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### NOTES

1. The first British edition was published in three volumes on March 16, 1849 by Richard Bentley, London, while the first American edition was published in two volumes on April 14, 1849 by Harper & Brothers, New York.

2. My thanks to Michel Imbert for bringing this reference to my attention.

3. “Rather, it devotes itself to the single-minded pursuit of the idealized woman, Yillah, the only time in Melville’s novels of sailors and voyaging that a female is the central object of the narrator’s concern. [...] The most prominent reason for this was certainly Melville’s courtship and marriage with Elizabeth Shaw during the composition of *Mardi*.” (Haberstroh 247)

4. “Taji’s quest for the Self is not revealed through dream symbols, although he thinks of the islands he visits as being ‘invested with all the charms of dreamland’ (ch. 1), and the psychic figures in his quest are all, at one time or another, referred to as ‘phantoms’ or ‘spectres’” (Johnson 222).

5. “The loss of Yillah is a symbolic fall from this early paradisiacal state, and the quest to recover her, projected forward in time and space, is essentially the retrograde search for a happiness located at the origins of individual and cultural life. Though drawn from experience and imagination more than from reading in his near-contemporaries, Melville’s narrative in *Mardi* recalls the archetypal Romantic myth of ‘the ascending circle, or spiral’ (Abrams 188), which recast Christian and neo-Platonic ideas of paradise, paradise lost, and paradise regained in an account of secular history that applied both ontogenetically to the development of the self and phylogenetically to the progress of the race” (Milder 253-4).
6. “It is only natural that such spirited talk on a variety of subjects of current interest should have found a place in a literary omnibus like Mardi. So it was that under the thin guise of a Polynesian allegory, Melville satirized the gold rush, the jury system, the exploitation of the Indian, the blatant spirit of nationalism, the controversy over slavery, the Mexican War, and national figures like Clay, Webster, and General Zachary Taylor.” (Anderson 344)


8. “He was well trained […] at the Lansingburgh Academy. He learned the theoretical bases of navigation from Jeremiah Day’s The Mathematical Principles of Navigation and Surveying. He also learned from Day’s text the practical use of navigational instruments: the mariner’s compass, Hadley’s quadrant, and the log-line. From the decks of one merchantman, three whaleships, and a frigate, Melville observed many times two simple navigational procedures—the local apparent noon observation of the sun for calculating the latitude, and the comparison of ship’s noon time and Greenwich, or chronometer, time for computing the longitude.” (Heflin 3)

9. My thanks to Ronan Ludot-Vlasak for bringing this reference to my attention.

10. “In his sea fictions, Melville improvises a literary cosmogony that intermingles the oceanic with the astronomical by figuring islands as planets, oceans as lagoons, and archipelagos as constellations. He mischievously materializes the ascent to heaven as a pagan voyage into a cosmic ocean.” (Marr 188)

11. σπουδαιογέλοιον, spoudaiogêloion, is a compound of “serious” (spoudaiôn) and “comical” (gelôion).


14. Cosmos: A Sketch of a Physical Description of the Universe by Alexander Von Humboldt; “Cosmos” (vol. 1), translated by O. C. Otte, London: Henry G. Bohn, 1849. The fifth (and last) volume was almost finished in German in 1859, when he died.

15. “Perhaps the application of the name ‘Taji’ to Melville’s sailor Narrator as well as naming the ship the Arcturion instead of the Leviathan as at the end of Omoo were changes made when Melville discovered that the voyage he was writing had less to do with whales than an imaginary tour through a Milky Way of South Islands.” (Davis 69) Of course, other explanations for the characters’ names have been offered.

16. Ludot-Vlasak (93-97) underlines the importance of the theme of spectrality in Melville’s characters.

17. The spellings of Halley’s name during his lifetime included Hailey, Haley, Hayley, Halley, Hawley, and Hawly.

18. He sometimes writes approximately: for example, “Polynusia” or “Polynisia” (letters to Murray, 1 January 1848, 25 March 1848) for “Polynesia.”

19. “La Quête, c’est la Question posée au Système, le Système ébranlé par le pouvoir d’interrogation qui lui est opposé comme un défi incessant” (Jaworski 179). My translation.

20. “Képler, à qui d’ailleurs l’Astronomie a de si grandes obligations, trouvoit raisonnable, que comme la Mer a ses Baleines & ses Monstres, l’Air eût aussi les siens: ces Monstres étoient les Comètes.” (Lettre sur la Comète 12) “Kepler, to whom, in other particulars, astronomy has such great obligations, thought it but reasonable, that as the sea has its whales and monsters, the air should have them likewise. These monsters are comets.” (A Letter upon Comets 12)
ABSTRACTS

Melville, as a sailor, expressed his fascination for astronomy, ephemerides and their creative potential, which is evidenced in the metaphorical setting that structures the whole argument of Mardi’s confusing world. Indeed, the hero sails on the orbit of stars. Melville had read many “travels to the moon,” and his novel might be directly inspired by Cyrano de Bergerac, Kepler or Godwin. Moreover, at the time he was writing his Polynesian novels, Melville could not ignore astronomical topics such as the passage of Halley’s comet. Its name is the nearly perfect palindrome of Yillah, which imparts a major metaphorical and celestial dimension to the topography of Mardi and its rings of islands. Instead of being a travelogue-satire, the entire novel operates as an astronomical metaphor.

Melville, en tant que marin, a souvent exprimé son goût pour l’astronomie, les éphémérides et leurs ressources narratologiques : cette fascination se manifeste dans le système métaphorique qui sous-tend toute la structure de Mardi et le monde qu’il parcourt : ce périple prend sens si l’on considère que le héros voyage dans l’orbite des étoiles. Melville avait lu de nombreux « voyages dans la lune », et son roman pourrait être directement inspiré des œuvres de Cyrano de Bergerac, Kepler ou Godwin. En outre, au moment où il écrit ses romans polynésiens, les questions astronomiques sont d’actualité avec le passage de la comète de Halley en particulier, ce nom étant le palindrome presque parfait du nom de l’héroïne Yillah—ce qui permet de lire l’ensemble du roman comme une vaste métaphore astronomique touchant le sens du roman dans son ensemble, à interpréter comme un voyage dans les astres, en particulier dans le monde planétaire de Mardi et de l’anneau de ses îles.

INDEX

Keywords: Mardi, astronomy, Halley’s comet, metaphor, orbit, trip to the moon, Cyrano de Bergerac, Kepler, Godwin, Maupertuis

Mots-clés: Mardi, astronomie, comète de Halley, métaphore, orbite, voyage dans la lune, Cyrano de Bergerac, Kepler, Godwin, Maupertuis

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