In the Field with Charles-Alexandre Lesueur (1778-1846):
Science and Community on Three Continents

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Scholarship on French naturalist and artist Charles-Alexandre Lesueur has often addressed either his work on the Baudin Expedition to Australia from 1800 to 1804, or the time he spent in North America from 1816 to 1837, but rarely the two together.¹ Current historiography supports this approach, as historians focus on the involvement of science in eighteenth-century European imperialism, and on mutually reinforcing developments of science and the nation-state in the nineteenth century.² This essay seeks to unite these two important parts of


Lesueur's scientific career through the common experience of fieldwork, including the scientific expedition he made to the French Riviera in 1809. Drawing from several works on the transformative functions of fieldwork, it examines the ways that Lesueur learned, implemented, and transmitted scientific practice through fieldwork, and the challenges he faced to continue doing fieldwork. It also considers relationships between fieldwork and scientific communities, in particular Lesueur's experiences of fieldwork as both fostering and disrupting different kinds of community. I argue that while fieldwork launched and drove Lesueur's professional career, it also hindered him from greater achievements and recognition in his lifetime and in history. Additionally, this essay claims that continuity between Lesueur's experiences on the Baudin Expedition and in North America helps explain his involvement in the experimental community of New Harmony, Indiana from 1825 until his return to France in 1837.

Several scholars have analyzed fieldwork as a particular space of scientific endeavor that involved social networking and adaptation in a locality, danger and adventure, and the opportunity for fashioning or refashioning a scientific identity. Focusing on Carl Linnaeus and his students, Hanna Hodacs asserts that fieldwork was an important means of launching a scientific career in the eighteenth and nineteenth centuries, transforming students into professionals and providing access to a community of scientific practitioners. This was indeed the case for

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Lesueur who published results of his fieldwork in scientific journals in both France and the United States, and who, consequently, appears in Nicole and Jean Dhombres’ s and George H. Daniels’s respective studies of French and American scientific communities. At the same time fieldwork also presented challenges, including funding sources, disease and other hardships related to elements and slow communication, as well as separation from a scientific community, to say nothing of home and loved ones. Distance from the resources of scientific communities in Paris and Philadelphia limited Lesueur’s ability to publish his work and strengthen his reputation. Lack of financial support sometimes prevented him from embarking on fieldwork expeditions. Ultimately, Lesueur remained a lifelong practitioner of fieldwork and contributor to scientific and other communities consistent with his experiences on the Baudin Expedition, but his reputation as a naturalist and artist remained limited.

**Becoming a naturalist on a voyage of exploration**

Little information exists on Lesueur’s childhood and youth, but scholars agree that the voyage to Australia formed him as a naturalist and artist. According to biographer Bauke Ritsert Rinsma, Lesueur was born in Le Havre, did well as a student at the Collège du Havre, and likely attended the Ecole publique des mathématiques et d’hydrographie. He might have learned art in one or both of those schools, or from private lessons. A short stint in the marines ended with his discharge because of a physical ailment. Lesueur seemed to be seeking employment in turbulent times when he enlisted as a gunner on the *Géographe* in 1800. Lesueur’s father, a judicial secretary in the Admiralty, objected to the prospect of his son joining the expedition to Australia, and Lesueur replied: “I am

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7 The importance of direct contacts with established scientific figures in Paris to construct a scientific reputation is clear in the journal of Pierre-Joseph Amoreux. Editor Laurence Brockliss wrote that starting in 1800 “Amoreux had grasped that the successful savant in the future would have to be the friend and client of the intellectual giants of the Institut. To gain their respect required a shift of focus. He had to become personally known to the Parisian scientific elite and demonstrate that he had a part to play in their collective enterprise.” Laurence Brockliss, ed., *From Provincial Savant to Parisian Naturalist: The Recollections of Pierre-Joseph Amoreux (1741-1824)* (Oxford: Voltaire Foundation, 2017), 64.
leaving for my own satisfaction to seek greater peace beneath other skies and to
find means of working if the opportunity arises and my star is sufficiently
fortunate: you know . . . that in these times, it is impossible to do anything at all,
that life is a burden when one has no occupation." Moreover, it was clear that the
Géographe's captain Nicolas Baudin (1754-1803) anticipated that Lesueur would
spend most of his time doing artwork, specifically illustrating the journal Baudin
would keep of the voyage, rather than gunnery. And indeed, after the appointed
artists left the ship in Ile-de-France, Lesueur, along with Nicolas-Martin Petit (1777-
1804), assumed their positions.  

Lesueur practiced his art and learned science on the expedition, particularly
in collaboration with the young zoologist François Péron (1775-1810), who became
a close friend.  Botanist Antoine Laurent de Jussieu (1748-1836) described the two
as “inseparable friends who helped each other,” and who contributed significantly
to the success of the expedition through their collecting and observations. Jussieu
suggested that Péron, who had studied science as well as medicine, more than rose
to the occasion of becoming the sole zoologist on the expedition despite his relative
youth, and he both guided Lesueur and benefitted from Lesueur's assistance and
companionship:

[Péron], the only remaining zoologist on the expedition, did not
limit himself to physical and anatomical observations to which he
was initially assigned, but he zealously embraced other parts of
zoology. Lesueur, charged only with drawing animals, added for
himself the function of collector. Péron recognized that he owed
much to this faithful companion who, whether tramping at his side
on land or staying on the ship, prepared and drew the objects his
friend collected, lightening his work load and allowing him to
pursue new research. 

During the voyage Péron and Lesueur engaged in a wide range of scientific
practices; Péron recorded weather conditions and measured sea temperatures; both
men interacted with indigenous peoples and analyzed their behaviors; they
collected and preserved animal specimens, and Lesueur drew animals, persons,
sites, landscapes, maps, and elevations. Marine animals seemed to hold a special

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9 Cited in Jacqueline Bonnemains, Elliott Forsyth and Bernard Smith, eds., Baudin in
Australian Waters: The Artwork of the French Voyage of Discovery to the Southern
10 Bonnemains, et al., Baudin in Australian Waters, 16.
11 Edward Duyker, François Péron: An Impetuous Life: Naturalist and Voyager (Carlton,
Vic.: Miegunyah Press, 2006).
12 A. L. Jussieu, “Notice sur l’expédition à la Nouvelle-Hollande, entreprise pour des
recherches de Géographie et d’Histoire naturelle,” Annales du Muséum d’histoire
fascination for the two naturalists, as Péron’s essay on the new genus *pyrosoma* suggests (see Figure 1). Péron claimed that naturalists and travelers had neglected to study these pelagic (open-ocean) tunicates for many reasons: their bizarre, even off-putting appearances are hard to describe, draw, and preserve, and their smell, texture, and propensity to decompose rapidly make them difficult to study. With these challenges, few naturalists anticipated how valuable these creatures could be for natural history. According to Péron, however, and thanks to Georges Cuvier (1769-1832), who taught Péron and provided him with notes, Péron and Lesueur completed the most extensive research to date on these luminescent sea creatures. While traveling through the Atlantic and Indian Oceans and around Australia, they would hang over the side of the ship and trap the animals in nets. Péron wrote: “My friend Lesueur whom the most distinguished naturalists and artists admire for both his drawing and painting, was ever my collaborator and companion. Whatever I described carefully and in detail, he drew or painted with perfect accuracy. All our work, all our observations we made on live animals, in the presence of the staff of our ship.”


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13 “Pyrosomes are hollow tubular colonies of individual zooids that reside next to one another in a common tunic and result from asexual reproduction. Pyrosomes often produce light (bioluminescence) and are capable of forming dense aggregations.” [https://scripps.ucsd.edu/zooplanktonguide/species/pyrosoma-atlanticum](https://scripps.ucsd.edu/zooplanktonguide/species/pyrosoma-atlanticum).


15 Péron failed to acknowledge the work of zoologist René Maugé (1757-1802) who died during the voyage. See below.

Shipboard community

The voyage transformed Lesueur into a naturalist, and perhaps established his abiding interest in fish and marine life; he also learned about community on board the Géographe. The men were all engaged in the shared mission of scientific exploration – mapping, observing, collecting, preserving, and recording for the benefit of France – as Charles Pierre Claret Comte de Fleurieu (1738-1810), member of the Institut de France and at different times Minister of the Navy, instructed Baudin:

In order to carry out the Government’s design, Citizen Baudin will employ assiduously, and with all the zeal of which he has given proof, the scientists, engineers, artists and means placed at his disposal, as much to determine precisely the geographical position of the principal points along the coasts that he will visit and to chart them exactly, as to study the inhabitants, animals and natural products of the countries in which he will land. With regard to the products, he will give his attention to the collecting of those which appear capable of being preserved, and he will apply himself principally to the procuring of the useful animals and plants which, unknown in our climate, could be introduced here.17

The men also depended on one another for survival at sea and on land. As Frank Horner has made clear, Péron’s official account of the voyage contributed to the damaged reputation of Captain Baudin by avoiding the use of his name, and holding him responsible for navigation errors and high rates of sickness, among other things.18 Yet in their two separate accounts of the voyage, Baudin and Péron wrote at length about the ravages of dysentery and scurvy upon the shipboard community, and the concern and care exhibited among the men:

No one among us was exempt [from scurvy]; it hit even domestic animals, including two rabbits and a monkey belonging to sailor Lefebvre that died from scurvy. Amidst these disasters our second doctor, M. Taillefer, honored himself with the most generous devotion. He alone was in a condition to care effectively for the sick;

day and night he stayed awake to attend them, to alleviate their pain and lance their putrid ulcers. He served them all as nurse, doctor, consoler, and friend combined.19

Both Baudin and Péron deeply regretted the loss of community members and their particular contributions to the endeavor. Baudin wrote in his journal on February 21, 1802: “Citizen Maugé’s death is an irreparable loss for the expedition. . . alone, he did more than all the scientists put together. Occupied solely with his work, he thought of nothing but performing his duties well, and I was never in a position to remonstrate with him on this head.”20 Conducting fieldwork, sharing the dangers of overseas exploration, and fulfilling the mission of the expedition to map the Australian coastline and collect specimens for knowledge and use united the men, and they keenly felt the loss of fellow naturalists and crew members.

Bonds among the shipboard community were also essential for survival. After a harrowing adventure on land in 1803 when Péron and his companions got lost, tramped without food or water, and finally collapsed from heat, dehydration, and exhaustion, they reached the rest of their landing party: “Our good comrades hastened to us; they helped us up, supported us, and . . . they reignited the flame of life that was almost extinguished. Their eagerness [to help] was all the greater because they had lost all hope of seeing us again.”21 Community did not necessarily mean perfect harmony, as Baudin’s journal and Péron’s narrative make clear, but completing a mission and surviving a long-distance voyage to little-known seas and territory required that each individual fulfill his responsibilities and look out for others for the success of the whole.


20 Baudin continued in his journal, expressing his feelings of increasing isolation with the loss of Maugé and the gardener Anselme Riedlé (1765-1801), and guilt at being responsible for their deaths: “I realize with pain that he and Citizen Riedlé, the only two genuine friends that I had on board, have fallen victim to their friendship for me, this having been their sole motive in undertaking a voyage so fatal to them.” Baudin, *The Journal of Post Captain Nicolas Baudin*, 340.

21 Péron, *Voyage de Découvertes*, 2: 222. Baudin’s perspective on the same adventure was different: “I learnt that Citizen Péron, the most thoughtless and most wanting in foresight of everyone aboard, had persuaded the two others to cross the island from East to West, assuring them that it was a league in width at the very most . . .” Baudin concluded: “This is the third escapade of this nature that our learned naturalist has been on, but it will also be the last, for he shall not go ashore again unless I myself am in the same boat. And the limits that I shall set for his excursions will not be broad enough to allow him to delay the boat’s departure or to stray too far.” Baudin, *The Journal of Post Captain Nicolas Baudin*, 510.
Indigenous communities

Lesueur learned about community in another sense, through interactions with indigenous peoples and Péron's ethnographic interpretations of them. Several scholars have analyzed the shifting frames of French and indigenous encounters in the Pacific, as well as Péron's singular quirks and professional obligations that informed his analysis of Oceanic peoples. Whatever the merits and deficiencies of Péron's ethnography, Lesueur took away the practice of observing and interpreting human social interactions that he continued in his subsequent fieldwork, even when his professional focus was geology or zoology. An example, among many, was the crocodile hunt on the island of Timor in 1803 that involved negotiation with indigenous beliefs and a brief consideration of slavery (See Figure 2). According to Péron's published account, the slaves on Timor were happy to serve their masters because the masters were not arbitrary, and working conditions were reasonable in contrast to the situation in America. More challenging to Péron and Lesueur in terms of the mission to secure a crocodile specimen for the collection was the spiritual belief system of the indigenous community. The Malays who guided and assisted them in the crocodile hunt did not believe in using saddles for riding horses, and they regarded crocodiles as sacred, and killing a crocodile as sacrilege, if not impossible. According to Lesueur the Malays thought a saddle brought bad luck, so he and Péron rode bareback as did their hosts. Lesueur also elaborated upon indigenous rituals regarding crocodiles, and he suggested that Malays' fear of and veneration for crocodiles derived from the

23 Péron wrote of the Malays around Kupang in Timor that they had slaves, “but there was a great difference between the way slaves were treated [in Timor] and the system in our American colonies; the prejudice of color, the difference in language do not exist; the slave loves his master and hastens to anticipate the desires of one whose regular life prevents submitting the slave to caprice. Moreover, the enslaved condition is not hard in Timor; since it is a luxury to have many domestic slaves, they are not overworked; those who work outside of the house engage in rice or corn cultivation, or shepherding.” Péron, Voyage de Découvertes, 2: 261. Lesueur certainly found slavery less benign in Missouri; see below.
incapacity of their weapons to kill the formidable creature. An excellent marksman with firearms, Lesueur explained his careful and deliberate approach once he discerned a crocodile on the opposite bank of a branch of a river:

I was obliged to determine the best place to attack it so that the bullet could hit and deeply penetrate this monster. I motioned to my friend Péron . . . . I fired so as to break the dorsal vertebrae, and I succeeded. The noise of my gun sounded at the same time as the shot hit; the crocodile tried to throw itself into the water, it struggled and thrashed furiously . . .

The next morning Lesueur and Péron dissected the crocodile (with great difficulty, performing the dissection while standing waist-deep in water), and the only way they could get the Malays to help them transport the remains was to construct a sling out of bamboo limbs which the Malays were willing to shoulder since they could avoid contact with the crocodile. Their hosts were impressed that the Frenchman killed a crocodile (and survived), and they held a great celebration before the two men departed. They also required Lesueur and Péron to undergo a ritual purification that included disrobing and showering publicly, which embarrassed the Frenchmen. Additionally, the extreme heat and the necessary delays in transporting the crocodile remains back to the ship for preservation caused the crocodile skin to decompose in transit, and they had to throw it into the sea. From this experience, however, Lesueur cultivated an appreciation for and skepticism about human community which he applied to his fellow naturalists, local residents, and to idealists, as we will see below.

24 He also noted the Malay name for him as “the man who kills birds,” reflecting his prowess with firearms. Collection Lesueur, 17076, Muséum d’Histoire Naturelle du Havre.


Being a naturalist in France and in transition

After the *Géographe* returned to France in 1804, Péron’s efforts to secure support from professors at the Museum of Natural History contributed to professional recognition for him and Lesueur, and eventually government authorization for publishing an account of the voyage and pensions for the two men. Péron and Lesueur were working together in Paris on a narrative of the voyage, when in 1809, they traveled to the south of France seeking relief for Péron from his tuberculosis.

Applying some of the techniques developed on the Baudin Expedition, the two continued their work on marine life in Nice and other Mediterranean coastal areas whenever Péron’s health and the unusually harsh weather of 1809 permitted (see Figure 3). They met and collaborated with a local pharmacist and naturalist Antoine Risso (1777-1845), who had amassed an impressive collection of deep-water fish by inspecting the baskets of fishermen – a practice that Lesueur continued for the rest of his life.  

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27 Horner, *French Reconnaissance*, ch. 15.
30 Ibid. I thank Dena Goodman for sharing evidence that members of the Société Philomatique in the 1790s visited fish markets as part of their scientific practice.
An example of Lesueur’s subsequent reliance on fishermen comes from his article on new species of North American fish. “Near Marblehead, in Massachusetts, the fishermen take a kind of shark which they call Nurse or Sleeper, doubtless from its inactive or sluggish habits. It is considered as rare on their coast. From a skin recently prepared by them, I have been enabled to make the following observations.” C. A. Le Sueur, *Descriptions of several New Species of North American Fishes* (Philadelphia: Journal of the Academy of Natural Sciences of Philadelphia, 1818), 1.
According to Lesueur, their work in the Mediterranean reminded them of their experiences in Timor, and brought wonder and happiness to the ailing Péron: “I cannot convey the quantity of [molluscs], and the pleasure we experienced studying the many evolutions of each of them relative to their particular habits. There was nothing so interesting, so we extended our stay on the sea as long as my friend was not too tired. For him this was the sweetest and most agreeable pleasure. He devoted all his reflections to these light animals, . . .”

Péron’s health deteriorated and the two made their way to his birthplace in Cérilly, in the Allier, where Péron died in 1810, still working on the account of the Baudin Expedition. Although he entrusted his papers to Lesueur, another member of the expedition, Louis de Freycinet (1779-1841), completed the work.

The years following Péron’s death proved decisive in Lesueur’s scientific career. Back in Paris after 1810, he worked for the Museum of Natural History, but he was unable to secure a full-time position, and with Napoleon’s downfall even his small pension seemed threatened. When Scottish-American philanthropist and naturalist William Maclure (1763-1840) in 1815 offered Lesueur an opportunity to pursue scientific research in North America, all expenses paid, for two years, Lesueur accepted. Lesueur’s stature in the Paris scientific community had been insufficient for him to earn a living, or obtain government funding for more fieldwork, but it brought him to Maclure’s attention.

Maclure had made a fortune in trade in Britain and North America during the 1780s and 1790s, and thereafter devoted his time to scientific travel and educational reform. A radical critic of economic inequality, Maclure supported social and political reforms to enable working people to prosper and participate in representative government. He first visited the Swiss educational reformer Johann Heinrich Pestalozzi (1746-1827) in 1805, and afterward advocated for providing a useful education to the poor so they could be independent and productive. Recruiting teachers in France for Pestalozzian schools he started in Philadelphia, Maclure also sought a companion to help with a revised version of his geological study of the United States that he had first published in 1808. The contract between Maclure and Lesueur provided Maclure with an accomplished artist and naturalist, and Lesueur with an opportunity to pursue fieldwork in a part of the world unfamiliar to him. He wrote: “I so wanted to visit distant seas to add more to our

32 The introduction to volume 2 of the account reads: “The dying Péron bequeathed his papers to his most intimate friend, the faithful companion of his work and research in natural history, the good and modest Lesueur.” François Péron, et al., *Voyage de Découvertes aux Terres Australes*. Vol. 2 (Paris: De l’Imprimerie Royale, 1816), v.
many observations; crossing the ocean was an appealing lure.” Lesueur continued: “I did not hesitate in spite of the sorrow I felt at leaving the capital of France, all that was dear to my heart, my affections: my father, my friends at the Museum of Natural History.”

Fieldwork and community in North America

The two men traveled to England, the Caribbean, and North America doing fieldwork, and, according to Rinsma, developed an interest in alternative communities, such as the Harmonist and Moravian settlements they visited in Pennsylvania in 1816. Additionally, he asserts that Lesueur embraced Maclure’s commitment to disseminate useful knowledge among working people, citing as proof that Lesueur remained in Philadelphia instead of returning to France after the expiration of their contract, and that Maclure subsequently persuaded Lesueur to leave Philadelphia in 1825 to establish a utopian community in New Harmony, Indiana.  

While it is certainly plausible that Maclure imbued Lesueur with his own zeal for educational reform and utopian communities as the best means for realizing that objective, evidence for Lesueur’s ideological commitment is slim. First, Lesueur demonstrated some skepticism and considerable good humor when he described an incident of sectarian folly during their fieldwork in the northeast. Responding to a letter from Frédéric Cuvier in 1818 about disagreement within the scientific community, Lesueur replied with a story of religious groups so divided that they cut their shared church in half (see Figure 4):

You speak to me of the dissension prevailing in the Philomatic Society, which gives me the opportunity of describing a happening here, between two religious sects that are using the same church. Unable to live in agreement, they decided to divide the church in two. The structure, although rather large and built entirely of wood, was sawn in two through the middle of the door, and one half was placed on two wheels, hauled by twenty-four pair of oxen to the other side of the city of New Bedford, through which this half of the church passed with great noise accompanied by the people of the religious sect.  

35 Lesueur quoted in Loir, Charles-Alexandre Lesueur, 15-16.
36 Rinsma, Alexandre Lesueur, ch. 4.
37 Letter to Cuvier, October 30, 1818, Collection Lesueur, 45024A.
Lesueur suggested a possible parallel between his community of scientific peers and the religious communities he encountered doing fieldwork, not unlike his experiences on the Baudin Expedition.

It is also not clear that Lesueur needed additional persuasion regarding the utility of science in a progressive or natural education. Rinsma quotes a letter from Lesueur to Maclure of June 6, 1822 stating that “reasonable people are beginning to appreciate the utility of instructing children according to the natural system,” as support for his claim that Lesueur “shows himself a fervent supporter, a true defender of the Pestalozzian method.”38 Yet a reading of Lesueur and Maclure’s correspondence from that time (early 1820s) suggests that Lesueur might have been simply reporting on the success of one of Maclure’s many philanthropic projects, in this case the establishment of a progressive girls’ school in Philadelphia under the direction of another Maclure protegée, Marie Duclos Fretageot (1783-1833).39 To be sure Lesueur helped his compatriot Fretageot in many different ways: supplying and moving furniture to the house that was also the school,

38 Rinsma, Alexandre Lesueur, 225.
working with the printing press she brought to reduce the cost of instructional materials, and teaching art to her pupils. Lesueur certainly was involved in education, but it seemed as much out of a need to earn a living as commitment to educational reform. Moreover, in keeping with the Baudin Expedition’s scientific mission, Lesueur was continuously engaged in the accumulation of useful knowledge through fieldwork, and implicitly its dissemination through publication and education.

However, Lesueur felt stymied in his scientific ambitions, unable to pursue fieldwork or get published in France, while he lived in Philadelphia from 1816 to 1825. There, he gave art lessons in schools and to private pupils, worked as an engraver for the Academy of Natural Sciences of Philadelphia, tended a small natural history shop, performed tasks for Maclure like shipping and receiving books and mineral samples from naturalists in Europe and North America, and tried as much as possible to do his own scientific work, notably to complete a book on North American fish.40 Lesueur was well integrated into the scientific community in Philadelphia, and he published several articles on fish in the Journal of the Academy of Natural Sciences of Philadelphia (see Figure 5).

Figure 5. C. A. Lesueur, “Description of five new species of genus Cichla of Cuvier,” Journal of the Academy of Natural Sciences of Philadelphia 11 (June 1, 1822): 215.

He expressed discontent, however, for his dependence on fellow naturalists to publish his work in English, the lack of attention he received from his colleagues in France who published few of his reports, and the relatively little time he had for fieldwork, since he was also earning a living in America.\textsuperscript{41} “My work forces me to be sedentary,” he wrote to a colleague in France. “I am not able to go about the country as I wish, to linger on shore and observe the marine life, to add to my drawings and increase my collections. My means will not permit me. All that I have done thus far is due to the liberality of Mr. Maclure.”\textsuperscript{42} In the midst of this frustration Maclure once again provided Lesueur with an opportunity to do fieldwork by leaving Philadelphia for the less settled area of New Harmony, Indiana.

**Science and community in New Harmony**

New Harmony was the brainchild of British manufacturer and reformer Robert Owen (1771-1858) who envisioned an egalitarian society based on shared work and property. Owen had implemented educational and social reforms at his New Lanark mills in Scotland that favorably impressed Maclure, who visited in 1824. Shortly after Maclure’s visit to New Lanark, Owen commenced negotiations for the purchase of the Harmonist community in Indiana.\textsuperscript{43} For Owen, a new start in a new country would fulfill his ideals of social transformation that business partners and public opinion hindered in Britain. Supportive of Owen’s intention, Maclure expressed concerns that regenerating adults for communitarian life would be more challenging than educating children for social transformation: “the

\textsuperscript{41} Rinsma, Alexandre Lesueur; 116-120. McClellan and Regourd quote Cuvier on the difficulties that naturalist voyager Amboise-Marie Palisot de Beauvois (1752-1820) experienced doing science in Saint Domingue because he was unable to present his work in person to the scientific community in Paris: “It is true that the author had left France, and ideas that are not presented and defended by the person who conceived them are more likely than others to fall into oblivion. Truth itself needs patrons to succeed in the world, however evident it may be, and even more so for positions for which proof is still incomplete.” The footnote reads: Cuvier, “Eloge historique de M. de Beauvois, lu à la séance publique de l’Académie des sciences, du 27 mars 1820” in PA-DB (Palisot de Beauvois). McClellan and Regourd, Colonial Machine, 452.

\textsuperscript{42} Letter of April 14, 1818 from Lesueur to Desmarest, Collection Lesueur 45036A.

materials he has to work upon are stubborn, crooked and too often bent in an opposite direction from their owne [sic] most evident interests.” Maclure remained convinced that educating children was the only means to transform society because adults were too hard to change: ‘I’m still afraid [sic] that the education of the children must be the chief support and foundation of the system.” He thought Fretageot and another French educator William Phiquepal would “be more usefully employed” with their schools (Maclure’s schools) “than joining Mr. O[wen] in the commencement of his most arduous undertaking.” Eventually, Maclure’s friends and associates in Philadelphia persuaded him that New Harmony represented a unique opportunity for educational reform uncorrupted by traditional prejudices.

There are many complex reasons that account for Lesueur’s willingness to become part of the New Harmony experiment, which Rinsma traces in depth, including Maclure’s and Lesueur’s debt to Francis Bacon’s 1627 utopian novel, New Atlantis.45 His involvement in New Harmony also further helps to establish the continuity of his fieldwork and understanding of community that he first experienced on the Baudin Expedition. Lesueur’s commitment to scientific fieldwork, his disappointment in not receiving French support for such work, his confidence in Maclure’s financial backing, and the prospect of family members and colleagues participating in the group far outweighed any belief in alternative social arrangements or educational reform when Lesueur decided to depart Philadelphia for New Harmony in 1825. In a letter to colleagues at the Paris Museum of Natural History, Lesueur wrote on August 4, 1826 of his move to New Harmony (see Figure 6):

I informed you . . . of my departure for Indiana, a region that I had long desired to visit . . . The opportunity, though not very advantageous for me, but in accord with my taste for natural history, prompted me to abandon the existence that my work enabled me to have in Philadelphia in order to come and settle here for as long as I can find the means to employ my time usefully for science and continue to send you the collections which this new field will offer me. . . The establishment in which I am working

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provides no salary, but one must pay by work to obtain the necessities of life.  

Further evidence suggests that reasons other than socialist idealism or educational reform led Lesueur to New Harmony. This same letter also indicated that Lesueur had been unsuccessful in securing financial support from the French government and through the intermediaries of the Museum of Natural History for a fieldwork expedition to the Gulf of Mexico. So he and fellow naturalists Thomas Say (1787-1834) and Gerard Troost (1776-1850) were accompanying Maclure at his expense to this new site that would bring Lesueur closer to the Gulf. Subsequently, in a letter of September 24, 1828 to Maclure, Lesueur asserted that far from sharing the ideals of the utopian community, he reluctantly joined the group departing for New Harmony because he trusted Maclure, because French educators Fretageot and Phiquepal pressured him, and because Fretageot assured him of Maclure’s financial support:

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47 Ibid.
You know well that my being here [in New Harmony], was because I relied upon your Word and your Honour which has been strongly imbibed in my mind since my travels in 1804, till this present moment, which your conduct towards me, justifies a change in my opinion. And I again repeat it, that by the reiterated solicitations of Mr. Phiquepal and Mrs. Fretageot, the latter when I told her that I had no confidence in Mr. Owen's system, Answered, What would it be to me if Mr. Owen did fail? Would Mr. Maclure in such case ever abandon you, can you suspect it for a moment?\textsuperscript{48}

Initially, the hope for fieldwork opportunities seemed well founded because just weeks after the group arrived in New Harmony, on February 26, 1826, Lesueur and Troost started an expedition to lead mines in Missouri. Lesueur's visual and textual journals of the trip, like the accounts of the Baudin Expedition, reveal the challenges of doing fieldwork in the wilderness, and the men's observations of and adaptations to local culture. Traveling overland as well as by boat along the Ohio and Mississippi Rivers to reach Missouri, Lesueur, Troost, and a doctor Cullock encountered backwoodsmen, settlers, and slaves.\textsuperscript{49} After being dropped off in the dark on a tiny point of land from which they risked falling into the river and being carried off by the current, the three men formed a human chain to ascend the river bank. Tramping through poorly marked trails, they confronted two armed men "with rather hostile expressions" who asked if they had seen a man carrying a rifle. Lesueur writes that they held their ground: "We responded without the least trace of being afraid of them that we had seen no one, but I made sure that they saw the double barrel of my rifle. The exchange then became more friendly." The strangers informed Lesueur's party that they were looking for a young man who had taken their rifle. The groups parted, and Lesueur wrote that he and his companions camped under a fallen tree in impenetrable darkness until he managed to light a fire. According to Lesueur, he provided something of a tent for the men with his overcoat which was their only protection when a tremendous storm started; he also plucked and cooked two small birds that he had shot and that were their only food. The next day in torrential rain and fog the men tramped until they reached the Mississippi and finally encountered a ferry boatman who brought them by canoe to his house near Commerce Town.\textsuperscript{50} With Lesueur

\textsuperscript{48}Letter of September 24, 1828 from Lesueur to Maclure, in Elliott, Partnership for Posterity, 1091-2.

\textsuperscript{49} Ritsert Rinsma has identified "Cullock" as Charles Fraser Kellogg, a tailor from Cincinnati who was interested in a particular white clay of the Mississippi for porcelain production. Rinsma, "Charles-Alexandre Lesueur, savant utopiste, 200.

\textsuperscript{50} A transcription of Lesueur's notebook of the expedition is Jacqueline Bonnemains, Journal de voyage de Charles-Alexandre Lesueur depuis New Harmony (Indiana) jusqu'au sud du Missouri en 1826. Documents du Muséum d'histoire naturelle du Havre 42 100 à 42 137 (2004), 16-17. Lesueur's heroic and leading role in the narrative is
collecting plants and animals along the way, he and Troost continued from there to lead mines in the interior of Missouri.

In addition to recording weather conditions, modes of travel, and encounters with backwoodsmen, Lesueur's account included observations of local culture, settlers, and slaves. He noted that American settlers usually traveled on horseback or in horse-drawn vehicles and were surprised to see travelers on foot. He wrote,

I observed that our dress and our backpacks, rifle on the shoulder, hammer in hand, and me with a beard three inches long and a cloth cap decorated with a fox tail, and trousers patched with white thread made us look rather strange to the inhabitants who are not accustomed to seeing travelers on foot with backpacks. Thus they looked at us with surprise, and when we passed through a village everyone came to their doors to watch us go by.51

He commented negatively on slavery and its degrading effects on slaveowners. At Cap-Girardeau, Missouri, Lesueur wrote: “We were in a country of slaves. The blacks who served and especially the mistress of the house who carried a huge bunch of keys that she used often to open and close the many doors, show that she was the slave of her slaves, for the attention that she gave to locking up everything indicated clearly how unhappy it is to be served by beings that one always mistrusts.” Elsewhere he wrote: “Generally, all the places where we saw slaves had the appearance of impoverishment rather than abundance.”52

In contrast to this informal and copious record of the hazards of fieldwork and observations of local inhabitants, the published account by Lesueur and Troost focused on scientific observations and their practical applications. First published in the New Harmony Gazette and excerpted in the American Journal of Science of Philadelphia in 1827, the account emphasized the inefficiencies of mining practices at Lamotte and Burton, and asserted that, based on Lesueur and Troost’s analysis of mineral samples, the miners were discarding high-content lead residues. The report also suggested that, given an abundance of zinc in Missouri near the Mississippi, transporting copper downriver from Lake Superior could produce the valuable commodity of brass, thereby dispensing with foreign imports.53 In keeping with European and American scientific practices of the time, Lesueur sought the wilds of nature for observation, collection, and classification, and he

consistent with other accounts of fieldwork as masculine. Livingstone, Putting Science in Its Place, 43; Nobles, “John James Audubon.”
51 Bonnemains, Journal de voyage, 24-25.
52 Ibid., 23, 25.
(and Troost) asserted the practical application of science to economic and industrial progress in the United States.\textsuperscript{34}

After the dissolution of the Owenite experiment in 1827 Lesueur remained in New Harmony, but scientific work increasingly became secondary to other tasks in the community, including teaching, surveying, practicing medicine, painting scenery for the local theater, and transporting goods to New Orleans. Indeed, after Maclure departed New Harmony for the more agreeable climate in Mexico, and entrusted Fretageot with running the school in New Harmony, Lesueur’s scientific work met with her disfavor. In her efforts to economize, Fretageot clashed with Lesueur over his teaching responsibilities, wages, and housing expenses, and she disparaged Lesueur’s science in a letter to Maclure. In contrast to Lesueur’s repeated assertions in his correspondence about the value of his fieldwork, and Maclure’s belief that science and art constituted useful education, Fretageot condemned Lesueur’s scientific practice as worse than useless:

If Say was only occupied with the dissection of his Insects, I would consider him just as I do with Troost and Lesueur. They are shut up in their cabinet, the former with speculative Mineralogy, the latter with the collection of Fish, Shells, Birds, Drawings, perfectly useless to the happiness of humankind, yet calculate the expense they carry with them and tell me what benefit will arise from their work to the present and even the future generations. That is the case with all scientific people, their knowledge is not only useless (because their [sic] is no application of it) but hurtful; it carries the mind astray, in fact it is false knowledge.\textsuperscript{35}

Lesueur also lost the scientific companionship of Troost who left New Harmony to become professor of geology at the University of Nashville, and of Thomas Say who helped Fretageot administer the school, and then succumbed to tuberculosis in 1834. Lesueur compensated somewhat for the loss of scientific comrades in New Harmony by frequent visits to New Orleans where he collected his pension from France, sold products from New Harmony, and worked with amateur naturalist Joseph Barabino (who died in 1834).

Despite many obstacles Lesueur found ways to do fieldwork and transmit scientific knowledge and practice to a new generation of scientists, similar to his own transformative experience of fieldwork on the Baudin Expedition.\textsuperscript{36} Long after

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  \item[\textsuperscript{34}] Lisbet Koerner, \textit{Linnaeus: Nature and Nation} (Cambridge, Mass.: Harvard University Press, 1999); Jardine et al., \textit{Cultures of Natural History}; Farber, \textit{Finding Order in Nature}; Chaplin, "Nature and Nation,” 75-95; Lewis, \textit{A Democracy of Facts}.
  \item[\textsuperscript{35}] Letter from Marie Fretageot, New Harmony, to William Maclure, Mexico, 2 March 1827, in Elliott, \textit{Partnership for Posterity}, 476.
  \item[\textsuperscript{36}] For Lesueur and Maclure’s influence on science in the United States, see Rinsma, “Savant utopiste,” 211-217.
\end{itemize}
\end{footnotesize}
his death, a former pupil and youngest son of Robert Owen, Richard Owen (1810-1890), geologist, professor, and first president of Purdue University, described Lesueur as “very kind-hearted” and “a magnificent artist” who taught young Owen how to draw, and modeled scientific observation and collection (see Figure 7):

In summer he was fond of swimming in the Wabash [River], and I frequently accompanied him. He instructed me how to feel with my feet for *Unios* and other shells as we waded sometimes up to our necks in the river or ponds, searching to add to our collections. When he went fishing with others he always exchanged his fine common fishes for the smallest and to them most indifferent-looking, when he recognized some new species or even variety. This item I have from Mr. Sampson, who is well acquainted with the fish of the Wabash, but who confesses he could see no difference in many caught until Mr. Le Sueur, who at once detected that difference, had pointed it out.57

For Lesueur, New Harmony provided a means of continuing scientific endeavors when his efforts to secure French government funding for an expedition failed, and he made the most of the opportunities it offered for fieldwork within the constraints of earning a living. Though skeptical of Robert Owen’s socialist ideals, and ever committed to accumulating useful knowledge for France and for the United States, Lesueur proved to be a more productive and lasting community member than either Owen or Maclure.

Lesueur actively participated in both American and French scientific communities; he worked for the Academy of Natural Sciences in Philadelphia, he traveled with Maclure and participated in New Harmony, and he maintained contacts with the Museum of Natural History in Paris. Yet he never achieved great stature through publication, or comfortable remuneration from his scientific work. He tried mightily to enlist support from professors at the Museum of Natural History for a French government-sponsored expedition to the Gulf of Mexico, but he was unsuccessful. \footnote{Several letters to professors at the Museum of Natural History asserted that Lesueur could add considerably to the Museum’s collections were he supported on an expedition to the Gulf of Mexico. Séances du 28 septembre 1820, 14 août 1821, 12 novembre 1821 in} It is likely that geographical distance, along with the

Figure 7. Boys fishing, Charles Alexandre Lesueur Collection of Works of Art on paper, Courtesy of Purdue University Libraries, Karnes Archives & Special Collections.
Museum of Natural History’s initiative to support scientific travel to places other than North America, prevented French colleagues from responding more favorably to the collections Lesueur sent them, or to his efforts to publish in France and to win French support for scientific expeditions in North America. Additionally, as Richard Burkhardt and others have noted, it was precisely during Lesueur’s career that Georges Cuvier asserted the primacy of cabinet or laboratory comparative analysis of specimens over the collection of specimens in nature. While American scientists showed high regard for Lesueur, including his artistic ability and his work on North American fish, his inability to write in English necessitated his collaboration with other naturalists, which partly accounts for Lesueur’s limited publications in the United States. As natural science and national interest increasingly allied in both France and the United States, Lesueur contributed to that process, yet found himself marginalized from it. Fieldwork


I t is possible that “indifference” from colleagues at the Museum of Natural History in Paris was due to their own launching of a program in 1819 to train young naturalists through scientific travel to regions from which collections were scarce, namely “West Africa, Cape of Good Hope, Madagascar, India, Australia, and South America.” Farber, Finding Order in Nature, 24-5. Indeed, Lesueur’s shipmate from the Baudin Expedition, the botanist Leschenault (1773-1826) received 10,000 francs from the French government to collect plant specimens from India for the Museum of Natural History. AJ/15/573 L. L. Jean-Baptiste Louis Claude Théodore Leschenault de la Tour.


https://babel.hathitrust.org/cgi/pt?id=hvd.32044072193949;view=2up;seq=1.

Prussian naturalist Prince Maximilian of Wied (1782-1867) acknowledged both Lesueur’s scientific contributions and the limited dissemination of his work after his visits to New Harmony in 1832-33 and 1834: “It would be a pity if the interesting labours of Mr. Lesueur, in natural history, were not communicated to the learned world during his lifetime.” Maximilian, Prince of Wied, Travels in the Interior of North America, trans. H. Evans Lloyd (London: Acerrmann and Co, 1843), 87. Lewis, Democracy of Facts; Chaplin, “Nature and Nation”; Susan Scott Parrish, American Curiosity: Cultures of Natural History in the Colonial British Atlantic World (Chapel Hill: University of North Carolina Press, 2012); Daston, “Nationalism and Scientific Neutrality”; Harrison, “Projections of the
made him a scientist, and it distanced him from the mechanisms of scientific reputation.