Mapping the Niger, 1798-1832: Trust, Testimony and 'Ocular Demonstration' in the Late Enlightenment

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Mapping the Niger, 1798–1832: Trust, Testimony and ‘Ocular Demonstration’ in the Late Enlightenment

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ABSTRACT: This paper is about the role of trust, testimony and direct observation in the making of maps and about the ways in which these issues were apparent in the mapping of the Niger River. By the late eighteenth century, the Niger River was a two-thousand-year-old geographical problem. Although classical writers, Arab geographers and French authorities had produced maps of the river, its direction of flow was not confirmed by direct observation until 1796 when the explorer Mungo Park did so. Yet Park solved only one part of the problem, and he died in 1805 while attempting to solve the remaining question: where did the river end? This question was not answered by direct observation until 1830. By then, however, the ‘Niger problem’ had been resolved, and the solution mapped, by two early nineteenth-century geographers who had charted the river’s course without travelling to Africa. Attention is also paid to the maps that first presented the Niger’s termination on the basis of field observation. What all this evidence raises is the question of trust in others’ testimony and the role of travel and direct observation in the production of maps as ‘truthful’ documents in the late Enlightenment.


The Niger problem was one of the most important geographical questions discussed in late Enlightenment Britain. By then the dual question of the course and direction of the Niger River and its terminal point was more than two thousand years old: classical writers, Arab geographers and French mapmakers had already discussed the problem. In the late eighteenth century, these questions had assumed renewed importance, given the European interest in the geographical exploration of Africa. The examination of the Niger problem presented in this paper takes us in two directions.

The first is an empirical study of the map evidence; the second focuses on conceptual and theoretical issues, especially those relating to the fact that in the end two men were able to produce accurate maps of the Niger without ever directly encountering the object of their enquiries.

In the empirical content, the first part of the Niger problem had been solved by the Scottish explorer Mungo Park in 1796. He had gone to Africa on behalf of the London-based African Association and in 1799 published his findings in his *Travels in the Interior Districts of Africa*. Park’s
Mapping the Niger before 1798

By the late Enlightenment, European geographers and mapmakers largely understood the edges of continents, but not their hinterlands. The African interior was one of the areas least well known. The gradual 'emergence of Africa' in the European geographical imagination and the map history of the continent have been extensively documented. An enduring problem in terms of knowledge of the West African interior was the course of that large river, the Niger, known to flow through the region.

Several commentators have summarized the early map history of the Niger. Herodotus in the fifth century BC knew of the existence of a great river in West Africa and held the view that it flowed eastwards to join the Nile. Ptolemy, in the second century AD, wrote that the Niger flowed eastwards from the mountains of what are now Senegal and The Gambia and emptied into an inland lake. Several Arab geographers discussed the West African interior, but of such work only two texts were known in eighteenth-century Europe. The first was that of Abu 'Abd Allah Muhammad ibn Muhammed al-Sharif, known to Europeans as Xeriff Edrisi, Edrisi or al-Idrisi, whose work of geography Kitab Roger was held because of the social status of the teller. Trust, and thus scientific credibility, reflected gentlemanly status. Shapin is also sensitive to the issue that was so important in the context of early mapping, namely the mapmaker's trust in travellers' and others' tales, noting that ‘Whenever, and for whatever reasons, those who judge observation-claims cannot be at the place and time where the phenomena are on display, then judgment has to be made “at a distance”. The trust relationship is, in that sense, inscribed in space’. The mapping by Reichard and MacQueen thus raises epistemological questions about the roles of travel and observation in knowledge making and about the roles of trust and testimony in map making. These questions, together with the implications arising from them, are kept in view throughout the paper and are reiterated in the final section where questions of authority and testimony in map making are shown to revolve not just around how maps were produced—by trust in others' words and by personal perception—but also around who judges such authority and testimony and what epistemological and social criteria are used.

Mapping the Niger

geography was scrutinized and corrected by James Rennell, a geographer and mapmaker who was also working for the African Association. In 1798 Rennell produced a map of northern Africa, in which Park's route and the course of the Niger were shown, the latter erroneously. The second part of the problem—where did the river terminate?—was finally solved in 1830 by the brothers Richard and John Lander. Yet years before the Lander expedition, two other geographers had produced maps of the termination of the Niger. The first to do so was the German geographer Christian Gottlieb Reichard, who presented his case for the correct termination of the Niger, including a map, in German periodicals in 1802 and 1803. The second was the British economic and political geographer James MacQueen, who in 1821 set out his case for the Niger's end point with a map included in his A Geographical and Commercial View of Northern and Central Africa: containing a Particular Account of the Course and Termination of the great River Niger in the Atlantic Ocean. He revised this map in 1826 and again in 1840.

The crucial point about Reichard's and MacQueen's maps is that neither of the authors had ever set foot in Africa, let alone seen the Niger for himself. In short, well before the Niger question was resolved as a result of travel and observation, maps produced as the result of sedentary textual enquiry had provided the answer. This turn of events accounts for the two strands in the present paper. By drawing attention to both groups of maps, those showing the termination of the Niger on the basis of fieldwork and those produced by armchair geographers, the full corpus of maps that provided the solution to the Niger problem is brought together for the first time. The way the two armchair geographers were able to produce what proved to be the most accurate maps of the Niger raises a number of more abstract issues. Travel and seeing for one's self—'ocular demonstration' as Rennell in 1799 and MacQueen in 1826 put it—was shown to be unessential for the discovery of truth. The evidence was not what they saw and measured instrumentally but what they read and were told by others.

The question of trust in scientific enquiry has been widely discussed. Steven Shapin's A Social History of Truth, for example, emphasizes trust in explaining what was held to be reliable scientific knowledge in early modern England. For Shapin, reliable—that is trustworthy—knowledge was so
completed in 1154, with an abridged version published in Rome in 1592. The second was al-Hasan ibn Muhammad al-Wazzan al-Zayyati, completed in 1154, with an abridged version printed in 1550. Al-Idrisi accepted Ptolemy’s argument for a large lake in the African interior, but differed from him in asserting that what al-Idrisi termed Nil as-Sudan (the Nile of the Sudan) flowed out of that lake towards West Africa. In effect, al-Idrisi reversed the Niger’s direction of flow from that proposed by classical authors. Leo Africanus offered support for the classical view of the Niger’s west to east flow but rejected the ancients’ view that the Niger emptied into an inland lake.

In 1700 the French geographer and mapmaker Guillaume Delisle showed the Niger on his map L’Afrique dressée sur les observations de Ms. De l’Académie Royale des Sciences, a landmark in the history of African mapping because of its accurate longitudinal dimensions. Delisle published improved versions in 1707, 1722 and 1727. His 1707 Carte de la Barberie de la Nigritie et de la Guinee separated the Nile and the Niger, but, for Rennell writing in 1798, he showed the Niger flowing east to west. Delisle’s 1722 Carte d’Afrique distinguished the Niger from the Senegal and Gambia rivers; it showed the Niger’s source in mountainous regions south of Timbuktu and had the Niger flowing in a west to east direction to end in a lake in the Borno region of the interior. Delisle derived his evidence from André Brue, the French Commandant General of the Senegal Company, who had explored coastal West Africa between 1697 and 1700, and, for his later maps, from Jean Baptiste Labat who had explored the Guinea coast in the early 1720s.

Johann Hase’s 1737 map of Africa, his Africa Secundum legitimas Projectionis Stereographica regulas, also had the Niger flowing west to east and included the great bend in the river, but he placed the river to the north of Timbuktu. The French royal geographer and mapmaker Jean Baptiste Bourguignon d’Anville’s Afrique publiée sous les auspices de Monsieur le Duc d’Orléans (1749) was based on Delisle, but with the difference that d’Anville showed the Niger flowing northeastwards between a source in ‘Marais Nigrite’ and its termination in an inland lake at Semegonda. D’Anville also discussed the Niger in an essay of 1759. The 1749 map is important for his insistence upon showing only what was reliably known. The consequence of this emphasis was to leave large areas of African interior blank.

By the late eighteenth century, then, European geographers knew of classical accounts and of the work of Arab geographers concerning the Niger, but such material did not provide a consistent view. In his 1890 book, the African explorer Joseph Thomson incorporates several maps of the Niger, including those derived from Ptolemy, al-Idrisi and d’Anville in 1749; these have been brought together in Figure 1. The maps of Delisle and d’Anville were generally deemed good maps produced by credible sources. This is not to suggest that the earlier map history of Africa and, thus, of the Niger is a simple progression towards ‘better’ later maps. The fact that d’Anville’s map left things blank only heightened interest in the Niger. Yet between d’Anville’s 1749 map and 1759 essay and Park’s first expedition, no further work was done to solve the ‘Niger problem’. Did the Niger flow from west to east? If from the west, did it join the Nile or flow into an inland lake? If it did not flow into a lake, where did it go?

Park, Rennell and African Geography

These questions of geography and the related matter of Britain’s developing commercial and scientific interests in West Africa prompted the foundation of the African Association in 1788, the body which appointed Mungo Park to travel to Africa and James Rennell to oversee the mapping and publication of Park’s geographical discoveries. The initial resolution of the twelve founding members of the African Association had proclaimed:

that as no species of information is more ardently desired, or more generally useful, than that which improves the science of Geography; and as the vast continent of Africa, notwithstanding the efforts of the Ancients, and the wishes of the moderns, is still in a great measure unexplored, the members of this Club do form themselves into an Association for promoting the discovery of the inland parts of that quarter of the world.

The natural historian and imperial agent Joseph Banks, who was Treasurer of the Association, selected Park to explore the Niger on 1 August 1794. His expedition to determine the course of the Niger, to learn more about the region’s peoples and to explore the commercial and other possibilities consequent upon enlarged geographical knowledge of the area, lasted from May 1795 to May 1797. Park was not the first to undertake to
Fig. 1. The uncertainty about the course of the Niger before the late Enlightenment is clear from these details taken from earlier maps in Joseph Thomson's Mungo Park and the Niger (1890). Map (a), at the top, is based on a Ptolemaic world map; (b) is from al-Idrisi's 1154 map of Africa; and (c), at the bottom, is from d'Anville's 1749 Afrique. On the Ptolemy map, 'Nigir Ger' appears to flow into the Atlantic about latitude 18° N. On the al-Idrisi map, the 'Nile of Sudan' runs between the Atlantic and a double lake from which the 'Nile of Egypt' also flows. On d'Anville's map, the Niger starts about 18° E of Ferro and flows east with two endings (called on Ptolemy 'Thala'). (Reproduced with permission from the Trustees of the National Library of Scotland.)
solve the Niger question on behalf of the Africa Association. In 1789, John Ledyard, an American, had been sent to Africa, but he got no further than Cairo, where he died. In 1788, Simon Lucas, a Court official, penetrated part way across the Sahara from Tripoli. Major Daniel Houghton, who had served in West Africa between 1779 and 1783, was sent by the Association in 1790 to investigate the Niger region. Although Houghton was last formally heard from in September 1791, his reports suggested that the Niger flowed from west to east and that, at Timbuktu, decked sailing ships navigated the river heading east.13

Park's instructions were identical to Houghton's and contained similar specific queries concerning the Niger.14 Unlike Houghton who only may have seen the river for himself, Park encountered the Niger on 21 July 1796: 'I saw with infinite pleasure the great object of my mission—the long sought for majestic Niger, glittering to the morning sun, as broad as the Thames at Westminster, and flowing slowly to the eastward' (original emphasis).15 Park's travels and achievements were lauded by his contemporaries, and his work has continued to attract attention from historians of exploration and travel.16 The nature of Park's exploration is less central to the concerns of this paper, however, than the fact that his work was scrutinized on behalf of the African Association by Henry Beaufoy, MP, by Bryan Edwards, who oversaw its literary style, and by James Rennell, the Association's geographical adviser. In the Preface to his 1799 work, Park noted thus of Rennell's involvement:

Major Rennell was pleased also to add, not only a Map of my Route, constructed in conformity to my own observations and sketches (when freed from those errors, which the Major's superior knowledge, and distinguished accuracy in geographical researches, enabled him to discover and correct), but also a General Map, shewing the progress of discovery, and improvement in the geography of North Africa.17

Park's acknowledgement of Rennell's status was to be expected. Rennell was a distinguished figure in the geographical and mapping worlds.18 He had been appointed Surveyor-General to the East India Company in Bengal in 1764 aged twenty-one. His Bengal Atlas was published in 1779 and his Memoir of a Map of Hindoostan in 1783. In 1791 Rennell was awarded the Copley Medal of the Royal Society in recognition of his surveying achievements. It was from this date that he conceived of a large-scale project on the comparative historical geography of western Asia, involving the works of classical geographers. Only one volume of Rennell's project was ever published: The Geographical System of Herodotus examined and explained by a comparison with those of other ancient authors and with Modern Geography (1800). The title of this work is indicative, however, of the geographical method which Rennell brought to bear on the Niger problem, in examining comparatively the texts and theories of 'other ancient authors' and those of 'modern Geography' as apparent in the claims of Park. Rennell's method of textual exegesis and his epistemological dependence on Park, through trust in the explorer's accounts would, however, eventually lead to error in his mapping of the Niger.

Rennell considered Park's account of his travels and his observations of the course of the Niger matters of major importance. At the start of his Geographical Illustrations, Rennell wrote 'The late journey of Mr. Park, into the interior of WESTERN AFRICA, has brought to our knowledge more important facts respecting its Geography (both moral and physical), than have been collected by any former traveller'. Park considered his own work 'without pretensions of any kind, except that it claims to enlarge, in some degree, the circle of African geography'.19 On the Niger, Rennell noted that 'Mr. Park's authority, founded on ocular demonstration, sets this question for ever at rest, by determining the course of the river to be from west to east, as Major Houghton's information had previously induced a belief of'.20

For Rennell, Park's testimony was credible because it was the result of personal observation. Rennell was, however, not dependent on Park alone. In order to produce his map of African discovery, Rennell had to place faith in his own reading of other accounts. In his lengthy Geographical Illustrations, Rennell discusses classical and ancient accounts of West Africa. His sources were al-Idrisi, Leo Africanus, Strabo, Ptolemy and Herodotus. He also drew upon d'Anville, including the latter's 1759 essay, which Rennell referred to as the 'Mémoire sur l'Intérieur de l'Afrique'.21 Rennell corroborated Park's instrumental measurements of longitude and latitude in the field with the qualitatively expressed statements of the earlier commentators regarding the size of regions, the names of places and the journey times between places. This comparative method helped...
establish Rennell’s geographical credibility: contemporaries considered him ‘the highest authority in Europe’. Rennell, however, was marshalling all this evidence to support his own theoretical position—based on classical accounts—that the Niger emptied into the island lake.

Rennell may have relied on what Park told him, but Park’s evidence was not necessarily correct. At one point in his travels, Park reported a distant mountain range which, he was told, lay within the empire of Kong: as Park put it, ‘where the people informed me, that these mountains were situated in a large and powerful kingdom called Kong’. Park did not encounter the mountains for himself. Yet Rennell incorporates Park’s claims on his 1798 Map shewing the Progress of Discovery & Improvement in the Geography of North Africa (Fig. 2). He does so because he has accepted Park’s testimony in other respects, and from his study of the texts of other authorities, notably Ptolemy and Leo Africanus. He also placed much reliance on Lucas’s report to the African Association in 1790, in which Lucas told of mountains of ‘stupendous height’ in the Niger region.

Rennell’s depiction of this mythical mountain range had major implications for the mapped representation of the African interior throughout the nineteenth century. It also had implications for solving the Niger problem. If one believed as Rennell did that the Niger terminated somewhere in the African interior, the Mountains of Kong provided a physical barrier by which alternative theories could be countered. As Thomas Bassett and Philip Porter have noted, ‘the Kong Mountains are a prominent landform of West Africa because they are a prominent part of Rennell’s theory on the course of the Niger. They appear on Rennell’s map as objective reality, when in fact they owe their existence to the arguments of an eminent scholar involved in academic debates on African geography’. Thanks to Park, Rennell’s map may have been an improvement on the work of Delisle and d’Anville, but it showed neither the true course of the Niger nor the correct termination. What it does show is where Rennell thought the river ran and should terminate based on his a priori theoretical dependence on the testimony of others.

By January 1805, when Park set off on his second, and fatal, expedition to solve the problem of where the Niger ended, four principal theories were current. The first proposition, and the one to which Rennell, d’Anville and most others subscribed, was that the Niger ended in an inland lake. As Rennell put it, ‘it can scarcely be doubted that the Joliba or Niger terminates in lakes, in the eastern quarter of Africa; and those lakes seem to be situated in Wangara and Ghana’ (see the captions to Figs. 1c and 2). The second hypothesis postulated that the Niger terminated in the headwaters of the Nile, but ‘of all the hypotheses respecting the termination of the Niger, . . . [this] is the most unfounded and the least consistent with the acknowledged facts’. The third theory, that the Niger flowed into the Congo, originated with George Maxwell, a British trader in Africa, who in July 1804 had written to Park to this effect. The fourth premise was advanced by the German geographer, Christian Reichard, who in 1802 and 1803 had hypothesized that the Niger reached the sea in the Bight of Benin. Park knew of Maxwell’s views. Rennell and Banks knew of Reichard’s theory by 1815, when Rennell rejected it in letters to Banks after it had been advanced in Park’s posthumous Journal of a Mission published by his biographer James Wishaw. Even if they had known of it earlier, it is likely that they would have dismissed the German’s theories out of hand because of their belief in the Mountains of Kong.

By the last days of his travels, Park had come to believe that the Niger ended in the Atlantic. In one of his final letters, he wrote, ‘I shall set sail to the east with the fixed resolution to discover the termination of the Niger or perish in the attempt’. He also noted, ‘I have heard nothing that I can depend on respecting the remote course of this mighty stream, but I am more inclined to think that it can end nowhere but in the sea’. Park did not live to know either the truth of his own words or how men like Reichard and MacQueen had solved the Niger problem and mapped the river without leaving home.

Christian Reichard: Truth by Analogy

Christian Gottlieb Reichard was born in 1758 and died in 1837. After studying law at Leipzig, he took up a post from January 1783 (which he held until his death) as a civil administrator in the town of Lobenstein. He conducted his civic business with such efficiency that he had time for research in geography. His reputation as a mapmaker and surveyor was such that he was...
Fig. 3. C. G. Reichard's *Probe-Charte* is the first map to show correctly the termination of the Niger in the Atlantic in the vicinity of Benin, but it is a far from accurate representation of the river's course. The map appears only in the journal *Allgemeine Geographische Ephemeriden* 12 (1803), between pages 264 and 265. The journal, published in Weimar, was co-edited by Reichard and F. J. Bertuch. (Reproduced with permission from the British Library, BL PP 3950 Map.)

Offered employment by Napoleon as an Engineer-Cartographer and by the Russian Court. Apart from short journeys within Germany, Reichard undertook all his research while resident in Lobenstein, a fact which astonished his much-travelled geographical contemporary Alexander von Humboldt.33

Reichard's work on the Niger first appeared in 1802 and in greater detail in 1803.34 In the 1803 paper, he included a map on which he showed the course of the Niger flowing east to an inland lake at Wangara (Fig. 3). But unlike d'Anville and Rennell, he then made his river continue south-westwards to reach the sea, calling the extension 'Rio Formosa'. Despite being broadly correct as regards the Niger's embouchement, Reichard seems to have been uncertain about the lower reaches. The known course of the Niger River to Boussa (where Park was to drown in 1805), is given in a solid black line, but below Boussa the river is less firmly shaded until its conjectural conjunction with the Rio Formosa. Reichard also
shows the Mountains of Kong—Gebirge Kong—but unlike Rennell, he did not think the range was
continuous. The title of this map—Verkleinerte [that is, reduced] Probe-Charte von C. G. Reichard’s
Atlas des Ganzen Erdkreises—indicates that it was a
working draft of the map of Africa which appears
in Reichard’s 1803 Atlas Des Ganzen Erdkreises in
der Central Projection. Yet the two maps are not
identical; his Probe-Chart is less detailed in terms
of coverage of names and African topography
whereas his 1803 Atlas map only hesitantly shows
the Niger south of Wangara.35

Given the sedentary nature of his geographical
enquiries, how was Reichard able to get the final
course of the Niger right? In his 1802 article, he
had considered, and dismissed, the evidence for
the Niger flowing into the Congo River. His 1803
paper had focused on the physical geography of
the Niger’s lower reaches and on the river’s prob-
able volume as indicated by comments and mea-
surements in travellers’ accounts, from which
he estimated the river’s capacity and size. He also
compared descriptions of the Niger with what was
known of the deltas of other major rivers, such
as the Ganges, the Nile and the Mississippi. From
what he had read, he realized that the landforms,
the soils and the nature of river systems along the
Guinea coast of Africa all pointed to the existence
of a large delta, which, in his estimation, could
only be that of the Niger. In effect, Reichard solved
the Niger problem by analogy and by placing trust
in the testimony of others. Reichard never saw the
testimony of others. Reichard never saw the
object of his enquiries, yet he can be regarded as
the first man to fill the gap on the map of Africa
d’Anville had left in 1749 between ‘Marais
Nigrite’ and Wangara in the Sahara (see Fig. 1 (c)).
Reichard’s hypothesis was supported by the lead-
ing geographer Conrad Malte-Brun in his Précis de
la Géographie Universelle.36 A review in 1815 of
the competing theories of the Niger’s termination
shows that Reichard had ‘gained something in
point of probability’ over Maxwell’s views.37

James MacQueen: Using Others’ Testimony

Reichard’s work was corroborated by the studies
of James MacQueen, who was born in Lanarkshire
in 1778 and died in London in 1870. MacQueen
published numerous books on topics ranging from
the geography of Africa and African explorations
to works on Russia, improvements in the mail
system and Britain’s West Indian colonies. He
contributed articles on trade statistics and political
issues to the nineteenth-century periodical press,
notably Blackwood’s Magazine.38

MacQueen’s interest in the Niger began while
resident in Grenada as manager of a sugar planta-
tion. In the preface to his 1821 book, he makes
clear what prompted his interests and how he
proceeded.

When Mr. Park returned from his first journey I was
resident in the island of Grenada (West Indies). There
I had Mandingo Negroes under my charge, who were
well acquainted with the Joliba. They knew the name
perfectly from hearing me pronounce it in reading Mr.
Park’s book. I also knew a Houssa Negro, who said he
rowed Mr. Park across the Niger. These things natu-
really attracted my attention; and being fond of geo-
graphical subjects, I endeavoured to collect all the
accounts which I could concerning the features of the
country on the Upper Niger, as well from Negroes
as from gentlemen of my acquaintance, who had
obtained their information from similar sources.
Though it was scarcely possible to reduce these, stand-
by themselves, into regular order, yet, connected
with other accounts, they became satisfactory, and
formed the commencement of my labours and col-
lections on this subject. Numerous authorities
regarding the interesting portion of Africa have been
examined with much care, and the most striking facts
elicited from their pages. This investigation in the geo-
graphical department, has led to the conclusion which
is now submitted to the world.39

The conclusion that MacQueen submitted was
that the Niger flowed into the Atlantic in the Bight
of Benin. In 1820 he produced A Map of Africa North of the parallels of 7° South Latitude to illustrate
his argument (Fig. 4). It is possible that the map
was originally drawn to accompany a report on
the Niger’s termination that MacQueen brought
to the attention of government authorities in 1820
in order to promote his plans concerning Britain’s
trading interests in West Africa. Other maps
followed in 1826, 1831 and 1840. Like Reichard,
MacQueen had solved the Niger problem without
‘ocular demonstration’. His investigation relied
on the spoken testimony of natives and on his
exegesis of other writings. His claim, of course,
ran counter to other views on the Niger’s mouth.
Moreover, since he had had no formal training
in mapping and relied on second-hand informa-
tion rather than on his own eyes, his views did
not find support among those for whom proper
maps were made only after seeing the area for
one’s self. Chief among such people was John
Barrow, Second Secretary to the Admiralty, the
principal organizer of ‘official’ geographical
exploration in early nineteenth-century Britain
and self-appointed geographical reviewer to the
Quarterly Review.
Fig. 4. MacQueen's *Map of Africa North of the parallel of 7° South Latitude*, published in 1821, shows the final course of the Niger flowing through the large delta of Benin into the Gulf of Guinea, but, like Rennell's 'Mountains of Kong' (compare Fig. 2), MacQueen depicts a largely imaginary topography in central and western Africa. This map appears only in MacQueen's *Geographical and Commercial View of Northern and Central Africa: containing a Particular Account of the Course and Termination of the great River Niger in the Atlantic Ocean* (Edinburgh, Blackwood and Sons, 1821). (Reproduced with permission from the Trustees of the National Library of Scotland.)

The first map MacQueen compiled to illustrate his thesis came, he said, 'from the best Authorities' and was dated Glasgow, 6th June 1820; it was engraved by the Edinburgh firm of Lizars. MacQueen's depiction of Africa's physiography is inaccurate, even rudimentary. In contrast to Rennell's 1798 map, but in echoing Reichard in 1803, the Niger is shown swinging south-westwards through 'a rich soil & level country' towards the sea. From MacQueen's point of view the purpose of the map was not to document what was there but to illustrate a thesis.

Perfect accuracy on these subjects is at present unattainable, nor is it here pretended to. The delineation of the general features of the country was all I had in view, and this I flatter myself has been done with sufficient accuracy to establish all the leading points which were contemplated.

To judge from later correspondence with his publisher William Blackwood, MacQueen continued to revise his map evidence after its first publication, writing, for example, to Blackwood of 'the absurdity of the Niger flowing to the Nile' and instructing the engravers Lizars 'only to lay down the single curve of the Niger into the Sea'. He further noted,

Tell Mrs Lizars to keep my old map by him and also a copy of [Dixon] Denham's Journal by which means he will be able to spell the names properly should he not be able to make out my hand correctly—I want him to be particular on this point and also in their true position.

Also say to him to continue the double dotted line up to Timbuctoo in the line which the Quarterly [the Quarterly Review] marks as the course of the Niger. It passes through a mass of names I have laid down but Mrs Lizars will easily trace it.

MacQueen's revised map accompanied another paper on African geography that appeared in June 1826 in *Blackwood's Magazine*, in which he reviewed the recently published journal of Dixon...
Fig. 5. MacQueen’s *Africa North of the Equator* (1826) was undertaken to show how John Barrow of the Admiralty was, as MacQueen put it, ‘quite wrong’ about the course of the Niger. The map appears only in *Blackwood’s Magazine* 19 (1826), facing page 687, as part of MacQueen’s article ‘Geography of Central Africa. Denham and Clapperton’s Journal’ (pp. 687–709). (Reproduced with permission from the Trustees of the National Library of Scotland.)

Denham, Hugh Clapperton and Walter Oudney, who had set out under John Barrow’s direction to explore the Niger.43 In his essay, MacQueen took issue with Barrow’s review of Denham and Clapperton’s Journal and with Barrow’s support for the Niger-Nile theory that had appeared in the *Quarterly Review*.44

MacQueen’s 1826 map, *Africa North of the Equator* (Fig. 5), is important for his depiction of the Niger’s course and the way he shows the ‘Course of the Niger, according to the Quarterly Review’ by a faint stippled line. From a letter of 21 November 1826, it is likely that yet further revisions were under way and that MacQueen was intending to use his Niger maps to bring his theories on the Niger and his commercial plans to the attention of a wider public.

I return you one copy of the Map with the very Trifling additions which I would make. It makes the fact of the termination of the Niger in the Sea self evident . . . What I would like is that you would get Lizars to engrave the additions & turn me off 12 copies to be put into the copies of the magazine which I mean to send to official and influential people. It is impossible with such a map before them that they could not see the sense in my arguments and information.45

It is unclear whether this letter refers to the map published in the June 1826 issue or to a later map altogether. A Niger map by MacQueen, almost exactly the same as in 1826, appeared in *Blackwood’s Magazine* in July 1831.46

From 1831, MacQueen was much involved with West Indian affairs but, by August 1838, he was again reviewing questions of African geography in relation to Britain’s overseas trade. By May 1839, he was preparing another book on Africa.47 As he told Blackwood, this was to be ‘accompanied by the map I have constructed which Mr Arrowsmith is about finishing on a reduced yet still considerable scale & with which he is extremely pleased as exhibiting the [Ms letter torn here] features of African Geography not yet brought before the public’.48

In 1840 MacQueen published *A Geographical Survey of Africa*, in which he included a short section on the ‘Construction of the Map’ and the map in question (Fig. 6). As with his 1821 map, he noted that complete geographical accuracy is not pretended to in the map . . . [Rather,] the object held in view was to present to the public a rational, and as nearly
Fig. 6. MacQueen's 1840 map of West Africa, drawn by John Arrowsmith (1790–1873), suggests in its coastal and interior detail a growing knowledge of the region in the two decades after 1820. This figure is only part of the whole map, which is untitled; it appears at the end of James MacQueen, *A Geographical Survey of Africa* (London, B. Fellowes, 1840). The inset in the lower left corner shows the delineation of the Niger from Sultan Bello's map. (Reproduced with permission from the Trustees of the National Library of Scotland.)
as possible, a correct delineation of the great physical features of Africa: this it is presumed and hoped has been done, with no material error in the general delineation of her great rivers and ranges of mountains.\textsuperscript{49}

MacQueen’s claim is not strictly borne out by comparison with his maps of 1821 and 1826, which show differences in the depiction of topography; his 1840 map is not without ‘material error’ in this sense (compare Figs 4, 5 and, below, 6). As in 1821, his notes on the construction of the map of 1840 are revealing as to his map-making methods in general.

The labours and speculations of geographers, or writers on African matters previous to this day, were brought into aid. The accounts of travellers, ancient and modern, that were known, or that came in my way, were carefully and separately examined; their statements retained or rejected, according as these agreed with themselves as a whole; or, as they stood the test of rigid examination when contrasted with others. The bearings and distances given in each were all carefully considered, as these were found to be given when travelling from different points in Africa to other points in Africa. Every one of these journeys were then protracted upon a large scale, and afterwards reduced, combined, and connected, by which means, with the aid of one or two fixed points, and a few more stated positions in which there could be no great error, one traveller and writer was made to check the other, and sometimes themselves. Great care has been taken to point out what the native travellers really did state, or intended to state, and not that which they have been in too many instances misrepresented and confusions of others, and the wrong positions taken by nearly all, were clearly demonstrated and ascertained.\textsuperscript{50}

From 1799 and, more particularly, between 1821 and 1840, James MacQueen was undertaking enquiries about the termination of the Niger which were realized in the three maps he compiled in which the lower course of the river was shown, correctly but without mathematical accuracy (that is, not to scale), from oral testimony of natives and from his cross-checking of names, distances and directions in European published accounts. What this evidence has also shown is that neither MacQueen’s maps—nor his method—found support from men like Barrow whose idea of geographical truth depended upon trust in first-hand encounters rather than second-hand testimony. What is also true is that, if the first source were to be found wanting, then testimony had for Barrow to be from approved sources—that is, from men he had himself sanctioned.

\textbf{Mapping the Final Solution}

Park’s failure in 1805 to complete the solution of the Niger problem prompted further expeditions to West Africa. In discussing James Grey Jackson’s 1809 \textit{Account of the Empire of Morocco and the district of Suse}, John Barrow commented on how Jackson’s belief that the Niger flowed into the Nile was contrary to ‘the high authority of Major Rennel’ [sic], despite Jackson having been told that natives had made the voyage from Timbuktu to Cairo.\textsuperscript{51} Reviewing Mungo Park’s \textit{Journal of a Mission}, Barrow again dismissed ‘Mr Jackson’s gos-siping stories, told at third hand . . . [as] unworthy of the smallest attention’.\textsuperscript{52} Further books that endeavoured to shed light on the Niger problem were produced by Bowdich in 1819, Lyon in 1821, Dudley in 1821 (the result of philological enquiry rather than travel), Laing in 1822, Adams in 1823 and Donkin (also arguing on linguistic grounds) in 1829.\textsuperscript{53}

In 1822, Barrow turned his critical attention to MacQueen.

We cannot, however, agree, with Mr McQueen [sic], when he assumes as a fact, (grounded, we believe, on the conjectural authority of a German of the name of Reichard,) that ‘all the mighty rivers, which send their sluggish waters into the bights of Benin and Biafra, are ramifications from one great trunk, the Niger, supplied and swelled in its western course by numerous tributary streams’.\textsuperscript{54}

As a firm believer in the evidence of travellers, Barrow was dismissive of MacQueen.

We must be excused for adhering to the consistent testimony of every travelling native of northern Africa, as to its [the Niger’s] eastern course considerably beyond Bornou, which, without going farther, renders all conjecture as to its Atlantic termination perfectly nugatory. In addition to the numerous facts which we have from time to time stated on this sub- ject, we are now in possession of others which tend to corroborate them in a very remarkable manner.\textsuperscript{55}

For Barrow, ‘the quarter to which we principally look, is the expedition to Bornou under Doctor Oudney, Lieutenant Clapperton of the navy, and Lieutenant Denham of the army’.\textsuperscript{56}

Oudney, Clapperton and Denham had first explored the Niger region between 1822 and 1824, but they had failed to discover where the Niger ended. Their account was published in 1826.\textsuperscript{57} The work is notable for its incorporation of a map of the Niger’s course derived from Sultan Bello, a native ruler who, in Clapperton’s presence, had drawn a map in the sand, which
suggested a direction of flow to the south-east but failed to show where the river went. Bello's map has been reproduced elsewhere; its essential features appear in the inset on MacQueen's 1840 map (Fig. 6). Clapperton had placed some trust in the Sultan's testimony but had made no attempt to verify it by seeking the river's final reaches.

In reviewing Oudney, Clapperton and Denham's account, MacQueen dismissed Bello's map, considering it a 'rude representation ... sufficient to convince us of [Bello's] inaccuracy as a geographer, and of his ignorance of the grand features of African geography, and the course and termination of the great African rivers beyond the immediate sphere of his own observation'. MacQueen reiterated his view that the Niger 'enters the Atlantic Ocean by several mouths in the Delta of Benin' and proceeded to document the authorities on whom he had drawn in cross-checking the measurements and detailed travellers' accounts.

At the same time, MacQueen recognized the importance of field observations.

Till a European, however, ascertain, all these points from ocular demonstration, and with scientific precision, the public mind will not be satisfied on these important topics. Doubt and uncertainty can, however, remain but a very little time longer. Captain Clapperton, with three companions, have proceeded on a second journey of discovery, and whatever be the result, they have at last taken the proper road to accomplish their object.

Clapperton and the others died of fever before completing their second journey. The only survivor was Clapperton's servant Richard Lander, who recounted the fate of the expedition in books published in 1829 and 1830. In his 1829 work, which is based on Clapperton's journals, Lander included a map of the Niger (Fig. 7). This 'Chart of the Route' hints at the 'closure' of the Niger problem. The River Benin—Reichard's 'Rio Formosa'—is shown to flow from the interior to the gulf, and the Niger also is shown as flowing south, but the two rivers do not meet. Accordingly, Richard Lander was instructed by Barrow to undertake a second expedition, and on 23 November 1830, Lander, with his brother John, completed the journey down the Niger from Boussa to the Atlantic. The map that first shows the solution to the Niger's termination from fieldwork appeared in the first volume of their 1832 work (Fig. 8).

Other evidence suggests, however, that the Lander's map did not simply reflect the triumph of direct observation and instrumental measurement over trust in other people's testimony in the search for geographical truth and cartographical accuracy. The Lander brothers' own commentary on the map provides the idea of personal observation.

The accomplished surveyor will look in vain along the list of the articles, with which the travellers were supplied, for the instruments of his calling; and the man of science to inform his opinion of it, need only be told, that a common compass was all they possessed to benefit geography, beyond the observation of their senses ... Too much faith must not therefore be reposed in the various serpentine courses of the river on the map, as it is neither warranted by the resources, nor the ability of the travellers. The map, in its most favourable point of view, can be considered only as a sketch of the river authenticated by personal observation, which will serve to assist future travellers, from whose superior attainments something nearer approaching to geographical precision may be expected. Even under these circumstances, the present travellers will always derive ample satisfaction in reflecting that they have served as pioneers of African discovery.

In fact, the map was produced on their behalf by Lieutenant A. B. Becher of the Royal Navy, and though no mention is made of MacQueen, it is probable that MacQueen's 1821 map provided the base for the Landers-Becher map of 1832 (see Fig. 8) and the Clapperton-Lander map of 1829 (see Fig. 7).

Clapperton did not produce this earlier map as the result of field observations. He had arrived in Africa with a map to direct his travel and observations, as MacQueen stated in his 1826 review.

In his present journey outwards [Clapperton's second and fatal trip] he touched at Sierra Leone last autumn. The editor of the Sierra Leone Gazette states that Captain Clapperton there exhibited to him a map of the interior parts of Central Africa, in which the river Niger was laid down as flowing southward from Nyffe till it entered the Atlantic in the Bight of Benin. That such a map was constructed before he left London we are credibly informed.

In a letter to Blackwood in June 1831, MacQueen expanded on this point.

Every effort will be made to rob me of the prize of the discovery by an invidious and unnecessary Ross [probably Sir James Clark Ross] and by Lander and his friends. My name merely descended the River the course of which I pointed out to them & I also know that it was from my book and map that Clapperton formed his opinion about the outlet of the River being in the Delta of Benin when he undertook his last journey in which Lander as a servant accompanied him. I know this from two persons who saw a map he made from mine and according to them before he left England. Lander has made few discoveries except the...
Fig. 7. The left-hand portion of the map produced by Hugh Clapperton and his servant, Richard Lander, in 1829 suggests the then remaining 'gap in knowledge' of the Niger. The map is entitled 'A Chart of the late Captain Clapperton from Badagry to Soccatoo, and of his Servant Richard Lander, from Kano to the Niger, in a different and more Easterly Direction'. It appears in [Hugh Clapperton], Journal of a Second Expedition into the Interior of Africa, from the Bight of Benin to Soccatoo, by the late Commander Clapperton, to which is added, The Journal of Richard Lander from Kano to the Sea-Coast, partly by a more eastern route (London, John Murray, 1829), facing page 1. (Reproduced with permission from the Librarian of the University of Edinburgh.)
Fig. 8. The Course of the Quorra, the Joliha or Niger of Park, as the Lander brothers entitled their 1832 map, was the first to be based on seeing and travelling the river’s final reaches. The map appears in volume 1 of Richard and John Lander, *Journal of an Expedition to Explore the Course and Termination of the Niger with a Narrative of a Voyage down that River to its Termination*, 3 vols. (London, John Murray, 1832), facing page lxiv. Note that the Mountains of Kong still appear. (Reproduced with permission from the Librarian of the University of Edinburgh.)
MacQueen was to be proved right in more ways than one. Becher claimed on the Landers' behalf that The termination of this river was entirely unknown until the completion of the recent expedition, and referred to Barrow, his senior officer, as 'the enlightened advocate and sincere friend of geographical discovery'. Richard Lander secured fame and financial reward.

Barrow, reviewing the Niger problem in 1832, dismissed both Reichard and MacQueen.

Thus at length has this geographical problem been solved, and for its solution we may thank the efforts by which hypothetical or speculative geography had been kept alive curiosity. M. Reichard, the German hit upon the happy conjecture, for it was nothing more; he arrived at a conclusion which happened to be right, though every stage of his reasoning was grounded on false data; he had not a single fact to guide him; ... MacQueen, [sic] almost as ingenious as M. Reichard, but a humble copyist, with an equal poverty of facts, claims the merit of the discovery; which however is due, and solely due, to Richard Lander, on whom the [Royal Geographical] Society has very properly bestowed his Majesty's royal premium of fifty guineas.

MacQueen was furious at this attack on him personally and on his achievements. In a letter to Blackwood, he noted Barrow's 'pitiful spleen, wasteful pride & ignorance of the subject on which he writes and has written so much', and concluded that 'The Geographical article in the last Quarterly is a disgrace to the subject & the work.' In Blackwood's Magazine, MacQueen referred to Barrow's 'tone of insolence and contempt' and stressed that he had not heard of Rechard's work when he had published his 1821 work.

For MacQueen, the Niger problem had been solved by sedentary enquiry using native testimony and travellers' accounts. Furthermore, his evidence, outlined in his 1821 A Geographical and Commercial View of Northern Africa, had as we have seen been presented to the government in June 1820. As MacQueen noted in defending his position and reputation, Barrow had been present at that meeting. Moreover, he went on,

the writer in the Quarterly Review knows very well that the map of Northern Africa, constructed by me, and the researches made to shew the course and the termination of the Niger in its lower course through the delta of Benin into the Sea.

Barrow, in short, would not or could not believe his eyes over maps produced by a man who based his claims to truth upon the words of others without having seen for himself the area he mapped. For his part, Barrow believed in the written word of the European man who followed the Niger to its termination, namely Richard Lander, ignoring the fact that Lander had only done so because Clapperton, with whom he had earlier travelled, had used MacQueen's 1821 map as a guide to his own failed 'ocular demonstrations'.

Travel, Trust, Testimony and Truth

The Niger problem and its mapped solution are illustrative of a fundamental difficulty in the nature of knowledge. For Park, Clapperton and the Landers, knowledge was arrived at via experience. For Barrow, MacQueen and Reichard, knowledge was secured through testimony.

Dorinda Outram has discussed these different routes to knowledge in her discussion of the work of the sedentary natural historian Georges Cuvier, and his field-based contemporary Alexander von Humboldt. Others have looked at the place of explorers and sedentary thinkers in the emergence of glacial science, and the production of science in the field and in the laboratory has been more generally reviewed. For Cuvier, knowledge of nature was obtained in different ways: The field naturalist passes through, at greater or lesser speed, a great number of different areas, and is struck, ... by a great number of interesting objects and living things. ... But he can only give a few instants of time to each of them. In contrast, 'The sedentary naturalist ... only knows living things from distant countries through reported information subject to greater or lesser degrees of error.' Thus for Outram, 'Field naturalists were validated by their heroism in physically encountering and overcoming distance from metropolitan centres. Conversely, sedentary naturalists were forced to argue that their psychic distance from the object of their study guaranteed the superior truth-value of their brand of natural history.'

Travel and trust in testimony are no less epistemological problems in cartographical history than in natural history. The history of African exploration and travel is certainly a history of heroism and death. MacQueen considered it so in relation to the Niger problem. As he noted to Blackwood, 'Barrow must feel some of his obstinacy & error
—but he ought to do more—he ought to feel sorrow, regret and shame for sacrificing so many valuable lives, so much money and so much to this country in searching for the course and termination of the Niger.  

I have shown here that the distinction between 'ocular demonstration' in the field, and sedentary reliance on reported information needs to be considered when trying to understand how the Niger problem was unraveled and mapped. The sedentary Reichard in Lobenstein in 1802–1803 and MacQueen in Glasgow in 1820 had both solved it some considerable time before the Lander brothers arrived at the same solution through travel in 1830. Yet the distinction between sedentary theorizing and field science should not be too sharply drawn. Perception is anyway theory laden. We do not always trust what we see. As this study has shown, the maps of Reichard and MacQueen were dependent on both men placing trust in others’ reported information in ways that have parallels in the mapping of North America. That travel and 'ocular demonstration' were themselves directed by second-hand testimony is clear from the work of Park. Rennell trusted what Park said he saw and accepted the authority of d’Anville. MacQueen knew that his theories, rooted as they were in the words of others, would only be believed when supported by the evidence of others’ direct observation.

Matters of travel accuracy in the field, sedentary theorizing and the fallibility of transient perception are, then, insufficient in explanation of how maps are produced, without attention to the epistemological issues of trust and testimony. In this regard, Shapin’s claims to the importance of trust being inscribed in space have only limited validity in respect to map history. As has been pointed out, Shapin’s is, essentially, an argument in which questions of trust and testimony are moral and epistemological. ‘Gentlemen were counted trustworthy because of their moral qualities. They were by their nature counted free and virtuous; free men had no motive to lie, and virtuous men were committed to truthfulness.’ In understanding how maps as forms of knowledge are based on testimony and trust, we cannot simply equate epistemology with ethics, not least since, as the examples here show, many of the reliable informants were not gentlemen. We must take cognizance of the distinctions between different sorts of testimony derived from persons of different social standing and recognize that how we know what is held to be true is as much a collective activity as an individual one.

The testimony of others is not simply a vehicle for transmitting knowledge gained by other means. It is a generative form of new knowledge. In virtually all forms of knowledge making, our dependence on other’s testimony in this sense is high. Accepting others’ testimony is a generative and judgemental form of knowledge, undertaken as part of a wider community. We should not exclude map making from this generative sense of testimony; for, as the evidence of MacQueen and Reichard has shown, what lies behind the map are processes of individual and collective trusting, of reliance on different routes to knowledge—perception and testimony—and matters of judgement founded on social as well as epistemic status. This has implications, too, for what we mean by ‘precision’ in the map and in map making, since, as Michael Bravo has shown of Rennell and others have documented more generally, the use and meanings in the field of terms like ‘instrument’ and ‘precision’ do not always equate with how others, elsewhere, understand those terms.

In looking back on MacQueen’s achievements, the African explorer Joseph Thomson hinted in 1890 at such matters (if not in such terms) and at the problematic nature of knowledge derived from travel:

While, one after another, explorers toiled and struggled, sickened and died, with but small result to science, he [MacQueen] set about collecting information from all the negroes and freemen he met who had come from or even set foot in West Africa. More especially did he study all the available materials supplied by Arabs who had travelled and traded in the Sudan, or by Europeans and natives who, bent on commerce or discovery, had penetrated to the interior from the West Coast.

For Thomson, ‘Never was a piece of arm-chair geography worked out more admirably. In its broad outlines it was perfectly correct. To McQueen it was as much a certainty as if he had actually explored and mapped it on the spot’. Yet, as Thomson also noted, ‘Unhappily for the stay-at-home geographer, no matter how skilfully he may set forth the discoveries made in his study, his triumph can only come after they have been demonstrated by actual travel, and even then the credit that falls to his share is small’.

The issues raised here, I suggest, have a far wider application in map history than just for the
story of the mapping of the Niger River. Reviewing the connections between the history of science and the history of cartography, D. Graham Burnett has noted how ‘our understanding of maps is enhanced when we recognize them as multivalent documents: parts of systems of gift exchange, tools of administration, expressions of wonder, techniques for sanitizing the strenuous realities of travel or combat, means to intimate and facilitate commerce’.87 Our understanding is further enhanced in comprehending maps as embodiments of trust and testimony. It may not always be possible to know how given maps incorporate others’ spoken testimony, or even their written accounts, or to know what reliance the mapmaker placed on ‘ocular demonstrations’, but we cannot ignore such issues. Knowing how maps and map makers worked depends on context. In the Enlightenment, there was a strong belief that ‘travel makes truth’.88 But as this paper has shown for the late Enlightenment, the truth in maps was arrived at first without travel, and without the instrumental accuracy generally associated with the rise of Enlightenment ‘reason’. We need, then, for the Enlightenment, as for other periods, to take seriously the questions of trust and testimony which lie behind and ‘within’ the map as well as to know how maps travel as trusted artefacts.89

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Notes and References


2. Shapin, A Social History of Truth (see note 1), 245.


5. Tooley, Collector’s Guide (see note 3), 68.

6. Rennell, Geographical Illustrations (see note 4), 370.


11. For a summary of the portrayal of Africa in maps during the Enlightenment, see Stone, A Short History of the Cartography of Africa (note 3), 23–46.


13. For a summary of the efforts to determine the Niger’s course before Park, see Duffill, Mungo Park (note 4), 31–35.

14. These ‘Questions respecting the Niger’ were issued in December 1790 and were, in effect, five in number: ‘49. Does the Neel il Abeed [the Niger] flow, from, or towards the Setting Sun? 50. In what country does it rise?—through what countries does it pass? 51. Does it
overflow its banks, so as to cover at one time, lands that are uncovered on another? 52. Are there any Boats upon it? How are they built, how navigated? 53. Does it empty itself into the Sea? Or does it end in a great Lake? Or is it lost in the sands of a Desert? A further question asked for information on the Houssa kingdom. For the full list of queries, see Robin Hallett, The Records of the African Association, 1788-1831 (London and New York, Nelson, 1964), 122-27.


17. Park, Travels in the Interior Districts of Africa (see note 4), viii-ix.


19. Park, Travels in the Interior Districts of Africa (see note 4), viii.

20. Rennell, Geographical Illustrations (see note 4), 365, 367.

21. D'Anville, 'Memoire concernant les rivières de l'intérieur de l'Afrique' (see note 8).

22. This was the view of John Pinkerton, Modern Geography (London, Strahan, 1802), 217. For the high esteem with which Rennell was held by the French, see C.-A. Walckenaer, Recherché géographique sur l'intérieur de l'Afrique septentrionale (Paris, Desforges, 1821), 238-39.

23. D'Anville's and Amadi Fatouma's Journals and, in the second expedition. See [Mungo Park], The Journal of a Mission to the Interior of Africa by Mungo Park (Edinburgh, W. & R. Chambers, 1838), 80. This is from Park's letter to Lord Camden of 17 November 1805 and from his last letter to his wife of 19 November 1805 (National Library of Scotland [hereafter NLS], MS TD 3005, Acc. XIX, fol. 1).

24. For a summary of Reichard's life and works, see his entry (written by the German geographer Friedrich Ratzel), in the Allgemeine Deutsche Biographie, 618-21.


29. Park knew of Maxwell's views concerning the Niger-Congo thesis before he [Park] set out on his second and fatal expedition of 1805. It is not known if Park knew of Reichard's work, since Park was by then (1802-1803) resident in the Scottish Borders and not in regular contact with Banks. Certainly, there is no evidence from contemporary Park manuscripts of this period to indicate that he knew of Reichard's works.

Account of the Course and Termination of the great River Niger (London, John Murray, 1836).

40. In his 1821 book and in correspondence, MacQueen, noted that his ideas concerning the Niger were first articulated in a ‘treatise’ or pamphlet (as he variously puts it) published in Edinburgh in 1816, in which he stated, ‘It is nearly five years, since, in a small treatise, I pointed out that, in the Bights of Benin and Biafra, the Niger certainly enters the Ocean’ (Geographical and Commercial View (see note 39), vii). This fact is also repeated by later commentators (Thomson, Mungo Park and the Niger (see note 4), note 39), vii. MacQueen's principal purpose concerning the Niger problem was neither geographical nor cartographical per se, but political. Since the Niger reached the sea and inland West Africa was, in theory, reachable from the coast, a British trading establishment located on the Guinea Coast or on the Fernando Po would, as MacQueen noted, thwart the French, secure commercial gains for Britain and bring ‘incalculable advantages to the West of Scotland, and to Glasgow in particular’ (ibid., vii). In a letter in December 1820 to William Blackwood, MacQueen noted that his ‘chief object with regard to Africa is publicity’ [for his plans for Britain’s commercial expansion in West Africa] (James MacQueen to William Blackwood, NLS, MS 4005, fol. 201). Curtin considered MacQueen’s ‘the most important and best publicized of the British theories’ [concerning the course of the Niger], although in his later works, ‘MacQueen made serious errors about the political geography of the West African interior’ (Curtin, The Image of Africa (see note 36), 207).

41. MacQueen, Geographical and Commercial View (see note 39), vii. MacQueen’s principal concern concerning the Niger problem was neither geographical nor cartographical per se, but political. Since the Niger reached the sea and inland West Africa was, in theory, reachable from the coast, a British trading establishment located on the Guinea Coast or on the Fernando Po would, as MacQueen noted, thwart the French, secure commercial gains for Britain and bring ‘incalculable advantages to the West of Scotland, and to Glasgow in particular’ (ibid., vii). In a letter in December 1820 to William Blackwood, MacQueen noted that his ‘chief object with regard to Africa is publicity’ [for his plans for Britain’s commercial expansion in West Africa] (James MacQueen to William Blackwood, NLS, MS 4005, fol. 201). Curtin considered MacQueen’s ‘the most important and best publicized of the British theories’ [concerning the course of the Niger], although in his later works, ‘MacQueen made serious errors about the political geography of the West African interior’ (Curtin, The Image of Africa (see note 36), 207).

42. James MacQueen to William Blackwood, 8 May 1826, NLS, MS 4017, fol. 217.


45. James MacQueen to William Blackwood, 21 November 1826, NLS, MS 4017, fol. 225.

46. [James MacQueen], ‘The River Niger—Termination in the Sea’, Blackwood’s Magazine 30 (1831): 130–36. This 1831 map differs from the 1826 map (Fig. 5 here) only in showing the trans-Saharan route of ‘Messrs. Denham and Clapperton’.

47. Letter to William Blackwood of 29 August 1838, in which MacQueen (by then resident in London), intimates his intention to bring such questions again to the attention of the Board of Trade (NLS, MS 4047, ff.19–21).

48. James MacQueen to William Blackwood, 28 May 1839, NLS, MS 4049, fol. 32.


50. Ibid., 268.

51. The work under review was James Grey Jackson, An Account of the Empire of Morocco and the District of Sust, Compiled from Miscellaneous Observations made during a Long Residence in, and various Journeys through these Countries (London, Nicol and Son, 1809). The anonymous review, which is by John Barrow, is in the Quarterly Review 2 (1809): 445–54; quote on 451.


53. T. Edward Bowdich, Mission from Cape Coast Castle to Ashantee, with a Statistical Account of that Kingdom, and Geographical Notices of other Parts of the Interior of Africa (London, John Murray, 1819); Captain G. F. Lyon, A Narrative of Travels in Northern Africa, in the Years 1818, 19, and 20; accompanied by Geographical Notices of Soudan, and of the Course of the Niger (London, John Murray, 1821); John Dudley, A Dissertation showing the Identity of the Rivers Niger and Nile; chiefly from the Authority of the Ancients (London, John Murray, 1821); Captain John Adams, Sketches taken during Ten Voyages to Africa, between the Years 1766 and 1800 (London, Strahan and Cadell, 1823); Captain A. Gordon Laing, Travels through the Timanee, Kooranoko, and Soollima Countries, to the Sources of the Rokelle and Niger, in the Year 1822 (London, John Murray, 1822); Donkin, A Dissertation on the Course and Probable Termination of the Niger (see note 27).


55. Barrow, Review (see note 54), 56.

56. Ibid.

57. Denham, Clapperton and Oudney, Narrative of Travels and Discoveries in Northern and Central Africa (see note 43).

58. Bello was the son of Uthman dan Fodiio, who in 1805 had led a Fulani jihad in the empire of Sokoto in West Africa.


60. MacQueen, Geography of Central Africa’ (see note 43), 702.

61. Ibid.

62. Ibid., 705.
63. [Hugh Clapperton], *Journal of a Second Expedition into the Interior of Africa, from the Bight of Benin to Saccatoe, by the Late Commander Clapperton*, to which is added, *The Journal of Richard Lander from Kano to the Sea-Coast, partly by a more eastern route* (London, John Murray, 1829); Richard Lander, *Records of Captain Clapperton’s Last Expedition to Africa* (London, Henry Colburn and Richard Bentley, 1830).


65. Ibid., iii-xiv.

66. MacQueen, *The Geography of Central Africa* (see note 43), 698.

67. James MacQueen to William Blackwood, 16 June 1831, NLS, MS 4030. It is not known for certain which ‘Ross’ MacQueen is here referring to. There are two easily confused candidates. The first, Rear-Admiral Sir John Ross (1777-1856), was a gold medallist of the Royal Geographical Society. The second, James Clark Ross (1800-1862) was nephew to Sir John and, like him, was a Rear-Admiral, a polar navigator and a gold medallist of the Royal Geographical Society. The two men had, however, a markedly different relationship with Sir John Barrow. Sir John Ross and Barrow had a long-running enmity. Sir James Clark Ross was a close associate of Barrow—he was one of ‘Barrow’s Boys’—and owed his advancement and Arctic work to him. Given the context in which MacQueen writes, it is likely he is here referring to Sir James Clark Ross. On the relationship between the Rosses and with Barrow, see Ferguson Fleming, *Barrow’s Boys* (London, Granta Books, 1998).

68. Lander and Lander, *Journal of an Expedition* (see note 64), xvi-xvii.


70. James MacQueen to William Blackwood, 22 November 1831, NLS, MS 4030, fol. 167.

71. [James MacQueen], *Geography of Africa—Quarterly Review. Letter from James MacQueen*, Blackwood’s Magazine 31 (1832): 201-16. MacQueen’s claim that he had not known of Reischard’s work is borne out in a letter from William Blackwood, 20 November 1820. Blackwood thanks MacQueen for his earlier correspondence concerning the latter’s Niger theories (the basis of his 1820 report to the Government and his 1821 book), and continues ‘Being myself however not a proper judge of these matters I lost no time in consulting a confidential friend whose judgement I am always guided by, and whose secrecy and discretion I can always rely upon. He gave me a most favourable report, but told me that the same or nearly the same idea had been thrown out by a German Geographer about 8 to 10 years ago. This of course he considered as a confirmation of your views, and not at all detracting from your priority. It was most improbable you could have seen this work. I have always been expecting to get from my friend a letter detailing his remarks upon your Memoir, but he has been so much engaged that I have never yet got it from him, and I now write you at last without it’ (William Blackwell to James MacQueen, 20 November 1820, NLS, MS 9818, fol. 203-203v.). It is possible that this ‘confidential friend’ was Robert Jameson, Professor of Natural History at the University of Edinburgh. Jameson knew of the Niger problem, and he is hinted at in later correspondence between Blackwood and MacQueen (NLS, MS 4079, fol. 264 (undated letter but from internal evidence c.1835)).

72. MacQueen, *‘Geography of Africa—Quarterly Review’* (see note 71), 211.


76. Outram, *‘New spaces in natural history’* (see note 73), 263.

77. On this, see Michael J. Heffernan, *“A dream as frail as those of ancient time”: the in-credible geographies of Timbuctoo*, *Environment and Planning D: Society and Space* 19 (2000): 203-25.

78. James MacQueen to William Blackwood, 16 June 1831, NLS, MS 4030, fols.135v-154.


Cartographier le Niger, 1798–1832: confiance, témoignage et ‘démonstration oculaire’ à la fin du siècle des Lumières


Den Niger kartieren, 1798–1832: Vertrauen, Beweis und Lokalaugenschein in der SpätAufklärung


Mapas del Niger, 1798–1832: Veracidad, Testimonio y ‘demostraciones visuales’ en la Ilustración tardía

El artículo trata sobre el papel de la veracidad, del testimonio y del reconocimiento sobre el terreno en la construcción de mapas y sobre las vías en las que estas cuestiones fueron evidentes en los mapas del río Niger. Al final del siglo XVIII, el río Niger constituía un problema geográfico que se remontaba a 2000 años. Aunque los escritores clásicos, geógrafos árabes y autoridades francesas habían hecho mapas del río, la dirección de su corriente no fue confirmada hasta el reconocimiento del explorador Mungo Park en 1796.
Pero Park resolvió sólo una parte del problema y murió en 1805 cuando trataba de resolver el resto, es decir, donde terminaba el río. Esta cuestión no fue resuelta por reconocimientos sobre el terreno hasta 1830. Sin embargo, para entonces 'el problema del Niger' había sido solucionado sobre un mapa por dos geógrafos de principios del siglo XIX que cartografiaron el curso del río sin viajar a África. Se señalan también los primeros mapas que presentaron el diseño completo del Niger, basados en observaciones sobre el terreno. Todas estas evidencias plantean la cuestión de la veracidad del testimonio de los otros y del papel del viaje y del reconocimiento sobre el terreno, en la producción de los mapas en tanto que documentos 'verdaderos' a finales del siglo XVIII.

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Full length articles will be eligible for the Prize, but not short articles, since only full length articles are automatically subject to the (anonymous) refereeing process before acceptance for publication. Directors of Imago Mundi Ltd (who will take it in turns to serve on the panel of judges) will not be eligible. The Imago Mundi prize is generously sponsored by Kenneth Nebenzahl.