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Shipwreck and Salvage in the Tropics: The Case of HMS Thetis, 1830-1854

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Shipwreck and Salvage in the Tropics: The Case of HMS Thetis, 1830-1854

Abstract

In 1830, the British frigate HMS Thetis was wrecked at Cabo Frio, on the Brazilian coast. A British naval force was subsequently despatched to undertake a major salvage operation which lasted for well over a year. The substantial textual and visual archive associated with the case of the Thetis raises wider questions about the entanglement of naval, scientific, artistic, financial and legal concerns in an age of British maritime expansion. If the loss of such a ship brought into question the capacity of the British to act at a distance, it also provided an opportunity to mend and strengthen the networks of power and knowledge. The sources of error exposed by the disaster were to be subject to investigation by numerous authorities, including hydrographers keen to refine their charts and sailing directions and Fellows of the Royal Society seeking to advance the claims of science, as well as the Admiralty itself, in the judicial setting of a court martial. We focus here especially on narratives of the wreck and the salvage of the Thetis, and the significance of their repeated tellings of the story after the event; and on the evidential and representational status of the visual images of the scene, in sketches, maps, charts, diagrams, engravings and paintings.

Key words

Shipwreck, visual image, narrative, tropics, Royal Society, Thetis, Brazil

Introduction

‘Among the shipwrecks which have taken place during late years, perhaps none excited so much astonishment, or caused so much trouble and discussion, as the loss of that fine frigate the *Thetis*’

Robert Fitzroy, 1839.¹

On a foggy night in December 1830, a 46-gun British frigate heavily laden with gold and silver smashed into the cliffs of Cabo Frio island, on the Brazilian coast to the North-East of Rio de Janeiro, with the loss of its cargo, along with 28 of the 300 men on board. The wreck of such a ship was not in itself unprecedented.² What made this particular event noteworthy were the circumstances of the disaster and the subsequent operation to recover the sunken treasure. Cabo Frio was a relatively familiar, and usually welcome, sight to navigators. But on this occasion, in conditions of limited visibility, the *Thetis* had steered a course which took it directly onto the rocks (Figure 1). Disabled by the violent impact, which destroyed all three of its masts, the ship had drifted along the coast and eventually sunk in a small cove in deep water beneath the cliffs of the island. All was not lost, however: in a remarkable series of salvage operations in the months which followed, a large proportion of the freight was retrieved from the sea-bed, weighed and packed up for the onward journey to England.

Based on the Royal Navy’s South American station, the *Thetis* was wrecked soon after leaving the harbour of Rio de Janeiro, having previously called at the Pacific ports of

Guayaquil, Callao and Valparaiso. The value of the ship's freight of bullion and coins – estimated to be worth over \$800,000 (£160,000) – provided a strong incentive for the salvage efforts at Cabo Frio, which lasted over 18 months. The first to volunteer his services (and those of his crew) was Captain Thomas Dickinson, who at the time of the disaster had just arrived at Rio de Janeiro after a voyage on another ship from the Pacific coast, his ship the Lightning likewise laden with valuable cargo. Between late January 1831 and March 1832, he managed to oversee the recovery of more than two-thirds of the gold and silver from the sea-bed, along with cannons, anchors and a large quantity of naval stores, the total being valued at \$588,000. However, after a dispute with his commanding officer at Rio, Dickinson was then replaced by a younger officer, Captain J. F. De Roos, who despatched a further 55 'chests of treasure' to London, worth \$161,501, over the next five months.³

British naval and commercial supremacy in the wake of the Napoleonic wars depended on the voyages of vessels like the Thetis, transporting goods, men, money and information across the globe. If the loss of such a ship brought into question the capacity of the British to act at a distance, it also provided an opportunity to mend and indeed strengthen the networks of power and knowledge. Hydrographers and maritime surveyors were keen to locate the precise sources of error exposed on such occasions, in order to refine their charts and sailing directions; while the naval authorities were of course obliged to investigate such incidents in order to attribute responsibility and where possible reward or blame. On this occasion, a ship had been lost on a coast supposed to be well-known to British navigators. Such an event naturally raised questions about the accuracy of existing charts, the reliability of surveying instruments and the credibility of the observations made

on the board ship. Here was an experiment, a voyage of navigation repeated many times previously without incident, which on this occasion had unaccountably and disastrously failed. In order to account for this, further inquiry was demanded.

Responses to the loss of the Thetis took many forms, from the inevitable court martial, which took place a few months later on board the Wellesley in Portsmouth harbour, to accounts of the salvage operation presented at the Royal Society in London. What is striking about many of these responses is their narrative form: the story of the wreck and recovery of the ship is told over and over again, in written communications to the Admiralty, in submissions to the Court Martial, in papers read to scientific societies, in newspapers and periodicals, in legal argument over claims to the salvaged treasure and in book-length works such as Dickinson's own published Narrative, which appeared in 1836.⁴ These narratives provide competing accounts of the causes of the wreck and responsibility for its salvage, a relentless telling and re-telling which constitutes the after-life of the event. Dickinson's claims to be 'principal salvor' – a title which would bring substantial rewards under English law – were later contested by his Commander in Chief at Rio, Rear-Admiral Thomas Baker, whose own case for reward rested ultimately on the prerogative of his rank: as he boldly claimed in a letter to the underwriters at Lloyds in 1832, 'not a step was taken nor, I may truly say, even the most insignificant operation, contrivance or proceeding attempted, except under [my] previous orders; or subject to be sanctioned or rejected'.⁵ Only after lengthy court proceedings did Dickinson obtain financial reward, which was substantially diminished by a bill from the Admiralty for the 'wear and tear of the ships and equipment'. The drawn-out legal disputes over the division of the spoils, which raised wider questions about the proper balance between private enterprise and public duty, turned

on the relative merits of naval hierarchy, technical ingenuity and physical effort as grounds for reward. Dickinson persevered in his claim for nearly a quarter of a century, periodically petitioning parliament and ministers, much to the consternation of officials.⁶ As late as 1854, the year of his death, the Admiralty was obliged to prepare what appears to be its final account of the case in response to a motion in the House of Commons.⁷

In a wider context, narratives of maritime loss and recovery could be appropriated to a variety of moral, religious, philosophical and patriotic ends. In particular, painterly representations of shipwreck scenes during this period exploited a potent and well-established visual grammar. As Geoff Quilley has shown, shipwreck iconography played its part in constructing the character of the British as a maritime nation during the late eighteenth and early nineteenth centuries, activating what he calls a ‘structure of feeling... which offered a paradigmatic resolution to a host of cultural concerns, through its value as an open-ended metaphor compounded by its direct material implications for national consciousness, commerce and maritime mythology’.⁸ One of J. M. W. Turner’s most celebrated shipwreck scenes, exhibited in 1805, was clearly influenced by the publicity surrounding the dramatic loss of the Abergavenny, ‘one of the richest ships that ever sailed for India’, which was also the subject of a salvage operation.⁹ In the case of the Thetis, however, it was the recovery of the treasure rather than the wreck itself which eventually provided the occasion for artistic representation (though as we shall see Turner himself declined an invitation to depict the scene). In 1833 the marine artist John Christian Schetky produced a pair of oil paintings of the salvage effort, bearing the title – ‘Salvage of Stores and Treasures from H. M. S Thetis at Cape Frio’ (Figure 2). In the first, the salvage operation proceeds unchecked in a cove beneath spectacular cliffs; in the second, it is the

sublime forces of nature which hold sway, as a stormy sea rages beneath the cables from which a diving bell is suspended. The twinned images provided a conventional study in the contrasting effects of weather conditions at a single site, as well as a tribute to human perseverance in the face of the awesome power of nature.

In this paper, we consider various different sorts of narrative and image arising from the wreck and salvage of the Thetis: not just finished works like Dickinson's book and Schetky's painting, but also some of the many sketches, charts, oral testimony and written accounts presented in a variety of other contexts. The steady accretion of narratives of loss and recovery in the files of bodies like the Admiralty and the Royal Society in London in the early 1830s reflected the considerable financial, legal and scientific significance attached to the case.¹⁰ The archive also testifies to the multiple ways in which knowledge of a distant calamity was produced through practices of image-making as well as of story-telling across a series of different institutional settings. For example, the naval authorities considered coastal views and charts as potential sources of evidence about the causes and context of the wreck itself: here, the sketch itself functioned as proxy witness in arguments about responsibility and culpability. The scientific community, meanwhile, became interested in accounts of the disaster partly because of speculation about the magnetic effects of iron on ship's compasses: here charts and maps functioned as more-or-less accurate renditions of the shape and pattern of natural forces. The visual depiction of the salvage operation, including the effort to represent and recover what lay below the surface of the sea, was also of interest to a variety of communities, not simply Fellows of the Royal Society, for example, but also London-based insurers who took a close interest in the proceedings throughout the operation. In the ensuing legal dispute over the spoils, the

graphic depiction of the site functioned as one way of demonstrating the accuracy of claims to authentic knowledge of the circumstances of the salvage: thus Dickinson's sketch of the site of the wreck could be described by his counsel in the Admiralty Court as a 'true representation of the cliffs of the said cove or inlet, and the suspension cable aforesaid'.¹¹ In published narratives intended for a more general audience, such as Dickinson's, the visual image functioned as picturesque support for the text, helping to establish the context for a tale of human ingenuity against the odds, on a real-life treasure island (Figure 3).

The issues raised by the wreck of the Thetis and its aftermath went to the heart of the nineteenth-century British trading economy, insofar as the ship itself was the means by which wealth, in the particular form of money and precious metals, was transported around the world. Britain's maritime power rested on, and reproduced, practices and principles of statehood, science and communication which are visible in the archive through which this event was represented in various ways by naval officers, lawyers, scientists and artists. In this paper, we seek to use a single case-study to consider the relationships between maritime culture, long-distance travel and scientific knowledge.¹² The theme of disturbance and recovery, and its representation in aesthetic, scientific and institutional contexts, connects directly to wider issues concerning the construction of British maritime power and knowledge in the early nineteenth century.¹³

Shipwreck and science: accounting for error

The wreck of a ship in uncharted waters could in many instances be attributed simply to a lack of knowledge of unfamiliar coastlines or currents: the case of the Thetis, however, was quite different. ‘Had any seaman been asked’, wrote Captain Robert Fitzroy (in his narrative of the Beagle voyage), ‘on what frequented shore there was least probability of a wreck, I almost think he would have answered on that of Cape Frio. Yet, against the high cliffs of that bold and well-known coast did she run “stem on”, going nine knots’.¹⁴

The outline of the island at Cabo Frio was indeed familiar to transatlantic navigators: in the words of a contemporary sailing directory, it was ‘[t]he first land generally seen, on advancing toward Rio Janeiro from the eastward’.¹⁵ The landmark thus figured prominently not only in sailing directions, charts and log-books, but also in ship-board diaries and letters. The first sighting of its distinctive topography was a major event on the journey out across the Atlantic for passengers bound for South America, South Africa or Australia. After eleven weeks at sea in 1809, for example, Ellis Bent recorded his feelings in a letter to his mother: ‘You have little idea how delighted we all felt at the first view of the immense continent of America stretching along the sea like a deep dark fog. As we approached Cape Frio we observed with wonder and delight its high and fantastic mountains, bordered with small rocky islands. The distance from the Cape to the entrance of the Harbour is about 60 miles, and is very high land and assumes an astonishing variety of appearances’.¹⁶ The striking coastal features at Cabo Frio reassured navigators that they were on the right track, and provided passengers with a welcome relief from the monotony of the sea voyage. They also provided naval surveyors with an opportunity to practice their sketching skills, as was the case in 1817, when John Septimus Roe sailed along the coast bound for Australia to join Phillip Parker King’s surveying expedition.¹⁷

In favourable conditions, Cabo Frio was only a day's sail from the harbour at Rio de Janeiro, which had been the headquarters of the Royal Navy's South American station since 1808.¹⁸ By the time of the Thetis' voyage in 1830, Rio had been incorporated into a world-wide network of ports of call and naval stations. British ships based there routinely called at other ports on the Atlantic and Pacific, including Montevideo, Valparaiso, Callao and Guayaquil, surveying coastlines, supplying stations, intercepting slave ships, collecting political intelligence and exerting influence by their mere presence. Prior to her arrival at Rio, the Thetis had called at Callao, from where one of its officers had sent an account of a six-month Pacific voyage on board another vessel (taking in Easter Island, Pitcairn, the Marquesas, and Tahiti), later published in the Bulletin de la Societ  de G ographie de Paris.¹⁹ Alongside their strictly naval and scientific duties, British frigates such as the Thetis were used to transport huge quantities of what was commonly termed 'freight' or 'treasure' – specie in the form of bullion or coins in gold and silver – from Mexican and South American ports on behalf of both state and private interests. Much of this trade passed through Rio en route for London, there being no separate Pacific Station until 1837. While specie was exempt from the general prohibition on private trade in the Navy's ships, the Admiralty attempted to regulate what was a potentially lucrative traffic by establishing fixed commissions for officers, with longer voyages reaping higher rewards.²⁰

In the narrating of the wreck of the Thetis and of the operations to recover its contents, fortunes were to be won and lost. There was more than treasure to salvage, since questions of responsibility and reputation were also at stake. Immediately after the disaster, the Captain despatched a letter to his superior officers in Rio, plaintively describing the loss of the ship as 'more unaccountable than any thing I have ever met in the whole course of

my naval experience': 'from all the precautionary measures taken, nothing but the strongest current, and the thick hazy weather, with hard rain, can possibly be offered in extenuation.'²¹ In his testimony to the court martial which took place at Portsmouth in March 1831, Samuel Burgess attributed the disaster to 'the wonderful and extraordinary nature of the current between Cabo Frio and Rio Janeiro', claiming that southerly currents off this part of the Coast were not marked on his charts or mentioned in commonly used sailing directions such as Horsburgh. The ship's master William Gowdy, who had more experience of the Brazilian coast, was closely quizzed on his knowledge of winds and currents in the tropics: he too identified unusually strong currents as the principal cause.²² The evidence presented to the court martial on these points included not only verbal responses and written submissions, but also coastal profiles of Cabo Frio and sketches of the site of the wreck made on the spot by both the ship's master and the British commander in chief at Rio (Figures 4 & 5). In its final judgement, the court held both captain and ship's master responsible for relying solely on dead reckoning, failing to take soundings and making insufficient allowance for the effect of strong southerly winds on sea-currents.²³

However, other explanations were also canvassed. During the 1820s and 1830s, authorities on terrestrial magnetism increasingly drew attention to the possibility of magnetic effects on ships compasses through 'local attraction'. As one writer in the Nautical Magazine (for 1832) put it, 'There can be no doubt that many minor currents have been stated to exist solely in consequence of inattention to this local attraction; for, if those on board any given ship consider that they are steering one course, while, in point of fact, they are steering another, there is always considerable danger that the difference in the position of the ship, determined by proper observations, and that obtained by dead

reckoning, will be set down to current, when no such current may exist'.²⁴ In April 1831, just a few weeks after the court martial at Portsmouth, a paper entitled 'On the errors in the course of vessels, occasioned by Local Attraction' was read to the Royal Society of London by Peter Barlow, Professor of Mathematics at the Royal Military Academy, making precisely this case in relation to the Thetis.²⁵ While Barlow conceded that his paper was lacking in 'that degree of scientific novelty which is generally expected in such communications', his credentials as an authority on terrestrial magnetism were undoubted. The increasing interest of science and the state in this subject reflected an alliance of convenience between philosophical and practical concerns.²⁶ At a time when iron was being used in the construction of an increasing number of ships, the Admiralty had a direct stake in Barlow's experiments on the local attraction of vessels, undertaken with the co-operation of scientifically-inclined naval officers such as Basil Hall and William Owen (both of whom had extensive experience of tropical navigation). The Board of Longitude had previously awarded Barlow a £500 prize for an iron plate which he devised for use on board ships as a corrective to compass errors.²⁷ The Nautical Magazine reported favourably on Barlow's hypothesis concerning the Thetis disaster in its first issue (published in March 1832), which described the phenomenon of local attraction as 'an insidious evil, which every ship carries about her'.²⁸ As Alison Winter argues, the disturbance to ship's compasses caused by the increased use of iron in shipbuilding 'made the issue of safe navigation a focus for debates about public expertise and authority'.²⁹ Barlow's researches thus contributed to the so-called 'magnetic crusade' of the 1830s and 1840s, a well-orchestrated campaign in which the political and economic utility of science figured prominently, as well as to a larger and more

theoretical project involving the construction of global charts of lines of magnetic variation and intensity.³⁰

The interest of the Fellows of the Royal Society in the fate of the Thetis needs to be seen in the context of contemporary efforts to demonstrate the practical utility of scientific reasoning, for which the science of navigation could provide ready support. In his Preliminary Discourse on the Study of Natural Philosophy, an influential work published in 1830 shortly before the Thetis disaster, the astronomer John Herschel had painted a portrait of the ideal scientific observer as a well-trained naval officer. His paradigm was Basil Hall's navigation of an 8,000-mile voyage in HMS Conway from the West coast of Mexico, round Cape Horn to Rio de Janeiro in 1822, during which the coast had not actually been sighted for three months. (Like the Thetis, incidentally, this ship was carrying a valuable quantity of freight). Herschel portrayed the plotting of such a route as a kind of travelling experiment in which a hypothesis, based on careful astronomical observations and mathematical calculations, was tested against the experience of safe arrival at the intended destination. If the ship was the principal instrument in this experiment, her captain was represented as the exemplary man of science. 'It is needless to remark', Herschel added, 'how essentially the authority of a commanding officer over his crew may be strengthened by the occurrence of such incidents, indicative of a degree of knowledge and consequent power beyond their reach'.³¹ With the Thetis, in contrast, the 'experiment' of navigation in the absence of visible landmarks had failed, with catastrophic consequences for captain and crew. And in this context, perhaps above all others, the attribution of cause and effect was inseparable from that of responsibility and blame.

Salvage and settlement

The scientific community's interest in the Thetis case was by no means confined to the causes of the wreck: indeed, accounts of the drawn-out salvage operations led by Dickinson and his successor De Roos were read at subsequent meetings of the Royal Society in February and March 1834. De Roos' was in fact the first to submit a paper, which was read in February 1834 at two meetings chaired by the Duke of Sussex and the astronomer Francis Baily. For a relatively well-connected young naval officer, already a published author and a Fellow of the Royal Society, such a step would have been unexceptional. Dickinson, on the other hand, was a considerably older man, who had fought his way up the naval hierarchy during the French Wars, and who clearly could not rely on the same sort of social connections.³² On hearing news of De Roos' paper, Dickinson promptly forwarded his own Narrative (apparently written in 1832) in the belief that his role in the salvage had not been properly acknowledged.³³ Finding themselves in an awkward position, the Society's officers debated whether either of the narratives merited full publication in the Philosophical Transactions: in the event, all that appeared were summaries in the Society's Proceedings.³⁴

The dilemma facing the Royal Society needs to be seen in the wider context of the long-running legal case over the distribution of rewards to the salvors, in which both Dickinson and De Roos (as well as Thomas Baker, their commanding-officer in Rio) were closely involved.³⁵ Here too, narrative was pitted against narrative, as the principal parties sought to demonstrate the extent of their active responsibility for originating and/or

conducting the operation. What was at issue here were the relative weights attached to technical ingenuity, naval hierarchy and physical exertion as grounds for personal reward. Both Dickinson and, to a lesser extent, De Roos had spent months applying themselves to the task, and both had a direct interest in demonstrating their skill in making surveys and designing instruments, as well as their continuous physical presence in and knowledge of the site at Cabo Frio.³⁶ Their commanding officer in Rio, in contrast, was acting at a distance: while in law he was entitled to a share of the spoils, there was little evidence of his direct involvement on the spot. Complaining that Baker was seeking to obtain more than his due, Dickinson had initiated legal action to claim the title of ‘principal salvor’, arguing that he was himself responsible for originating and developing the most effective techniques of salvage. The Admiralty Court reached its decision on the division of the spoils in March 1833, but the case was far from settled: the whole question was reconsidered on appeal to the Privy Council, which made additional awards in June 1834.³⁷

While lawyers picked over the claims and counter-claims of Dickinson, Baker and De Roos, the Fellows of the Royal Society considered the merits of the narratives of the salvage operation presented to them in Spring 1834. Those involved in evaluating the work were some of the most eminent authorities on hydrography, navigation and technology, including W. H. Smyth, Francis Baily, Mark Brunel and Captain William Fitzwilliam Owen, the last of whose testimony was significantly to strengthen Dickinson’s case.³⁸ Scientific interest was particularly focussed on the technical ingenuity displayed in the design of a number of diving bells, air pumps and a large derrick (Figure 6).³⁹ The largest diving-bell had been manufactured from two iron water-tanks, adapted by an English engineer living in Rio who was himself later drowned during the salvage efforts. The

makeshift air-pump used in the bell was devised from the fire-engine and hose of Dickinson's own ship, Lightning. In order to suspend the diving bell from a fixed point, he had supervised the construction of the derrick, 158-feet in length, largely out of spars from the wreckage of the Thetis herself. Putting the derrick in place was a complex undertaking which involved 'about 60 men slung in the bights of ropes, and otherwise suspended over the cliffs at work'.⁴⁰ In the event, it did not last long, being dashed to pieces in a severe gale in May 1831. Thereafter the bells were suspended from cables stretched across the cove, as can be seen in the sketch which accompanied De Roos' account of his own salvage operations presented to the Royal Society (Figure 7).

In the course of the protracted dispute over the credit for the salvage operation, each of its principal instruments came under close scrutiny. Dickinson represented the short-lived derrick as the product of his own resourcefulness and technical skill; his commanding officer contemptuously dismissed it as 'enormous, unwieldy and absurd'.⁴¹ While Baker claimed responsibility for initiating the design of the bells, Dickinson insisted he had conceived and executed the required work. (In 1842, he was presented with a Gold Medal by the Society of Arts in recognition of his 'consummate professional skill and ingenuity').⁴² De Roos for his part claimed his introduction of new chain cables to steady the bells, together with a more detailed survey of the sea-bed and the use of explosives in excavating the wreck, had all helped to improve the effectiveness of the operation in its final stages.⁴³ The minutiae of claim and counter-claim on such points wearied even the Admiralty Court, which was well used to such arguments, as the Judge complained in March 1833:

This particular part of the case has gone into a detail of particulars, which is almost extravagant with respect to the supposed exclusive merit of originating the enterprise, and devising the measures that were adopted. The Admiral [Baker] suggests the use of a diving bell, – Captain Dickinson claims the merit of constructing it from the ship’s tanks; – one proposes the use of the hawse of the ship’s patent pump, – the other claims the merit of supplying it; one engages Mr Moore, a skilful engineer in the service of the Brazilian government, – the other obtains the consent of that government for his employment; the Admiral again, constructs a net, made of hawsers and chain cable, in order to enclose the cove, but that is said to have proved useless. I will not, however, pursue further the admissions and denials on these points.⁴⁴

The claims of the contending parties in the dispute also extended to florid accounts of the physical and mental effects of their labours at Cabo Frio. In Dickinson’s published Narrative (1836), the salvage operation is represented as a battle with the elements, on both sea and land. Here, as elsewhere, Dickinson emphasised the physical effects of his crew’s constant exposure to the ‘scorching sun’ and ‘drenching rains’ of a tropical climate.⁴⁵ He also expanded upon other kinds of challenge, both imagined and real: rumours of tigers and alligators on the island, and sharks near the coast, along with constant infestations by ‘myriads of tormentors in the shape of ants, mosquitoes [sic], flies and... jiggers (chicres), to such an extent, that one might have thought we had invaded the united kingdom of insects, and that the whole community had risen en masse to expel us from their territory’.⁴⁶ Initially, Dickinson and his crew had set up tents made of old sails and canvas, but these

were soon abandoned, under the effects of tropical storms. According to Dickinson, clouds of the fine sands of Cabo Frio were blown ‘through every crevice of our fragile habitations... blinding the eyes and filling the ears’, while the rain ‘descended in such torrents that the canvas could not keep it out’. The effect, Dickinson relates, was ‘particularly distressing after a hard day’s work under an almost vertical sun’.⁴⁷

The construction of more robust accommodation from local materials – wooden huts with thatch roofs – is poetically described in Dickinson’s Narrative as a colonisation scene: the ordering of a vacant tropical space. In the process, the encampment was thus transformed into a ‘village’, with separate homes for the officers, a large hut for the crew, and a mechanic’s workshop, at the heart of which is a clearing called ‘Treasury Square’ where the salvaged freight was sorted and packed under the watchful eye of Dickinson himself.⁴⁸ (According to another account, originally published in the Portsmouth Herald, the settlement was named ‘St Thomas’, with Dickinson himself ‘monarch of all he surveys’).⁴⁹ The scene thus pictured was animated by the exertions of the crew – now organised into parties of excavators, woodcutters, carpenters, riggers, rope-makers and blacksmiths at their forges, in a division of labour dedicated to the extraction of treasure from the bottom of the sea. Representing himself as governor of this well-ordered community, Dickinson was careful to draw his readers’ attention to what they would recognise as signs of civilised and patriotic routine, such as the holding of divine service on Sundays and the observance of public holidays. The anniversary of the Battle of Trafalgar (at which Dickinson had himself been wounded) was said to have marked by the roasting of a pig on a spit constructed from a ship’s bolt supported by the remains of one of the diving bells.⁵⁰

Dickinson's personal investment in this narrative, which has many of the elements of a desert island romance, is all too evident: for the rest of his life he sought to obtain what he regarded as a fairer share of the treasure which had been recovered. But even accounts such as these hint at counter-narratives. For example, Dickinson's painstaking account of his efforts to establish a working system of communication with the bell-men working on the wreck suggests that his struggle at Cabo Frio was not merely with the elements alone. According to his Narrative, signals from the bell were made either by boards sent floating to the surface, or by a line: 'one pull, for more air; two pulls, hold-fast; three, hoist-up; four, lower; four [sic], haul the boat to starboard; six, to port; seven, ahead; eight, astern; and a quick shaking of the line, attention'. But alongside this agreed system, Dickinson later discovered that there was a 'private code' by which the bell-men were alerted to his own presence nearby. Fearing they might be engaged in their own private enterprise, he insisted that they be stripped and searched after each descent to the sea-bed.⁵¹

Furthermore, seen from the perspective of the inhabitants of Cabo Frio, the representation of the island as virgin ground prior to its occupation by the British was clearly a convenient fiction. At the time of the wreck of the Thetis, the island was farmed out as a fishing station, something for which the survivors, who had managed to leap ashore from the sinking ship, had reason to be grateful: the day after the disaster, they feasted on the salted fish and farinha discovered in fishermen's huts on the island's harbour side. (These are the buildings labelled as 'uninhabited' on Dickinson's map: Figure 3). The waters around Cabo Frio provide in fact some of the most prolific fishing grounds on the whole of the Brazilian coast, due to the phenomenon of resurgence which brings to the surface colder southerly currents (supposed to have given the cape its name). The mainland

village facing the island, Arraial do Cabo (marked but not named on Figure 3), which had been used as a harbour since the sixteenth century, had experienced considerable growth from the mid-eighteenth century. The news of the wreck of the Thetis was quickly reported in the Brazilian newspapers, whose accounts of the local response to the crew's plight were much more favourable than those of the ship's captain (who complained at his court martial of the 'rapacity and inhospitable conduct' of the natives).⁵² Whatever the attitude of the inhabitants of Arraial, it is hardly surprising that the encampment of a substantial British military force on the island for a total of eighteen months caused disquiet to both the Brazilian government in Rio and the municipal authorities in Cabo Frio.⁵³ There were allegations that the British were disrupting the livelihoods of Arraial's fishermen, that they cut wood without payment or authority, and that they were setting up fortifications on Brazilian territory. In response, the British denied that they had forcibly taken possession of the island, insisting that any military presence was required to safeguard the property salvaged from the wreck. Furthermore, they claimed that their arrival had provided a boost to the local economy, since some local supplies were obtained from the mainland. For his part, Dickinson dismissed all of the Brazilians' complaints, claiming in particular that the wood on the island was freely available, and 'not at all considered property' [sic]. But this stance, reminiscent of fantasies of tropical abundance and availability, could not be sustained in the face of further local pressure, and eventually rent for the use of the island was paid.⁵⁴

The view from the deep

The charting of coastlines around the globe, including those of South America, was a major preoccupation of scientific and naval authorities across Europe between the ages of Cook and Darwin. Mapping was an integral part of a wider discourse of field observation in which precision was the highest virtue. ‘Whether on land, in the air, or upon the sea’, writes Barbara Maria Stafford in Voyage into Substance, ‘from 1760 until the 1830s, we are unavoidably enmeshed in an epoch in which spatial discoveries loom large’.⁵⁵ However, there was one field of vision that was yet to be mapped – the sea-bed, the view from the deep.⁵⁶ While the development of modern oceanography is often portrayed as a late nineteenth-century phenomenon, dependent on the development of new technology for deep-sea exploration, the conceptual and imaginative stimuli for the new science clearly have earlier origins.⁵⁷ In 1769, the philosopher Johann Herder had thus exclaimed (in the course of a voyage from Riga to France) that ‘The sea floor is a new earth! Who knows it? What Columbus and Galileo can discover it? What new deep-sea diving voyages and what new telescopes still remain to be discovered in this wide world?’⁵⁸

A more prosaic tone was adopted in an article on the wreck of the Thetis published in the Nautical Magazine, in 1832: ‘We consider ourselves fortunate in being able to present our readers with so novel and curious a production, as a view of the bottom of the ocean, in any part of the world – but here it is strewed with some of its own lawful spoils, the last fragments of the poor Thetis’ (Figure 8).⁵⁹ The underwater sketches on which this image was based were said to have been made in the diving bells at Cabo Frio in November 1831, at a depth of up to 11 fathoms (about 20 metres). Their execution was something of a

feat in itself: the very act of breathing was difficult, especially given the intermittent operation of the pumps, while torches held above the surface of the water can hardly have provided sufficient illumination for drawing. Reporting on the use of the diving bells, Dickinson had claimed that ‘the men [said] they could see every object about them with great ease’. In March, 1831, for example, he sent his commanding officer a first rough sketch of the sea-bed, ‘which I believe to be as nearly correct as the limited angle of vision from the small space within the bell would admit’.⁶⁰ (Similar graphic views accompanied papers presented to the Royal Society by De Roos). The engraved sketch which appeared in the Nautical Magazine was accompanied by little interpretation: ‘To nautical readers our sketch will need no explanation, the situation of the anchor and the keelson will sufficiently point out the position of the wreck when she settled down on her last bed’.⁶¹ With the sea-bed so close and the field of vision so limited, the scene lacked a larger context: it is a diagrammatic representation, without the aesthetic of the chart or the seascape.⁶² Moreover, the poor definition of corroded objects covered with sand and rubble made accurate portrayal difficult, a problem also encountered by the contemporary illustrators of archaeological sites.⁶³

The novelty and impact of graphic representations of the underwater world in 1820s and 1830s should not be underestimated. In 1835, for example, a Regent Street gallery hosted a ‘submarine exhibition’, whose main exhibits consisted of items rescued from the wreck of HMS Royal George by Charles and John Deane, together with twenty oil paintings by James Meadows, ‘covering nearly 1400 square feet of canvass’. The exhibition was accompanied by a publication entitled Sketches under the Sea, by Charles Deane, containing illustrations of underwater work on the wreck, in the London docks and on the

foundations of Blackfriars Bridge.⁶⁴ Such underwater feats may well have influenced contemporary naturalists' depictions of the prehistoric world, notably Henry De la Beche's celebrated cartoon of animal life below and above water in 'a more ancient Dorset' which was sketched in 1830 and converted into lithograph form by George Scharf. As Martin Rudwick has noted, this image was produced 'two decades before the invention of the marine aquarium and the start of the Victorian craze for importing samples of aquatic life into the drawing room, where a fish's-eye view could be experienced through a sheet of plate glass'. Its 'half sub-aqueous viewpoint', Rudwick suggests, may well have been influenced by De la Beche's knowledge of diving on the Dorset coast, as well as his acquaintance with images produced in salvage operations.⁶⁵ A new perspective on natural history was thus opened up as the aquatic environment became more visible.

Interest in underwater sketches of the remains of wrecks like the Thetis thus extended across the worlds of naval technology, science, art and commerce.⁶⁶ The diving apparatus used by Charles Deane, for example, attracted the attention of no less an authority than Basil Hall, who published an enthusiastic note on Deane's underwater researches at Portsmouth in the Nautical Magazine for September 1832: 'When all is ready, he very deliberately steps on the ladder, and walks off, under the surface! The effect on the spectators is extremely curious, as the bold experimenter is gradually lost sight of, and the only indication of his place is a series of bubbles rising over him.'⁶⁷ Hall's account presents Deane's work as both a spectacular show and an ingenious experiment: life, and vision, under the sea is only possible through the considered application of new learning. This image of the 'bold experimenter' might also be seen in the context of contemporary assumptions about cultural variations in the human capacity to swim and dive at depth

(especially as swimming for pleasure only became fashionable in Europe towards the end of the nineteenth century).⁶⁸ The intimate relationship of Tahitians with the sea, for example, was a matter for wonderment amongst early European travellers, as a note from J. R. Forster, written while the Resolution was stranded on a reef, reveals: ‘Their boats often overset, but this is no harm to them for Men & Women swim most excellently, & I saw several dive for a single bead, & bring it up from a great distance under Water’.⁶⁹ In this context, it is surely significant that in the early stages of the salvage operation at Cabo Frio in 1831, the British did employ indigenous divers, called caboclos, on the assumption that their ability to remain underwater for long periods of time would help in locating treasure on the sea-bed. However, Dickinson cast scorn on their efforts and doubt on their motives, preferring to trust in his own devices. (It did not help that their services had been obtained by his commanding officer). According to his own account, he was happy to see them sent back to Rio.⁷⁰

Sublime landscape

Whereas the underwater sketch could be represented as something novel, the visual representation of the wreck of a ship posed a more familiar challenge to the artist and the engraver. Shipwreck scenes were a significant sub-genre of maritime art during the eighteenth and nineteenth centuries, and offered a variety of powerful allegorical and iconographical possibilities. The loss of the Thetis, however, was not on the face of it a particularly promising subject: instead of being overcome in a tropical storm, or foundering

on some uncharted shore, the ship had in unexceptional conditions driven ‘stem on’ into a well-known coast. Moreover, despite sinking very close to the cliffs, nothing of the wreck was visible at the surface, the masts of the Thetis being shattered on impact. Nonetheless, narratives of the salvage operation did dwell on the aesthetic qualities of the surrounding landscape: for example, in his account presented to the Royal Society, De Roos described the immediate setting as ‘sublime’, while Dickinson characterised the salvage operation in his 1836 Narrative as ‘a fine subject for the artist’.⁷¹ Several years later the geologist William Buckland wrote to Turner himself, sending him a copy of Dickinson’s Narrative (to which he had been a subscriber) and suggesting that its subject might be an appropriate one for an artist. The volume included lithographs of two scenes – ‘Thetis Cove in its most quiescent state’ and ‘Thetis Cove during a gale of wind’ (Figures 9 & 10) – which were presumably derived from Schetky’s own paintings. Turner politely declined Buckland’s proposal, pointing out that ‘the Thetis is at the bottom of the Sea and the Spanish [treasure?] is not to be seen’.⁷² Though he was drawn in some respects to the idea of fishing for treasure, he complained that ‘pictorial misfortunes’ in the stormy view (notably the hawsers stretched across the cove) wrecked ‘all chance of grandeur’.⁷³

The loss and salvage of the Thetis had, as we have seen, already provided a subject for the marine artist John Christian Schetky, best known for his portraits of ships and celebrated naval engagements, rendered in great detail with lengthy descriptive titles. Painters of such scenes had a ready market for their productions, especially after the Napoleonic wars. Schetky himself was described as ‘an eminent and loving depicter of the wooden walls of England’ by one Victorian critic.⁷⁴ His oil painting of Thomas Dickinson’s own ship, HMS Lightning, now in a private collection in Brazil, represents the

ship in some detail, with the distant shoreline depicted in the Dutch style as a backdrop to the main action.⁷⁵ Schetky's more elaborate works relating to the Thetis were the pair of oil paintings, dated 1833, reproduced in Figure 2 above. Whatever one makes of these paintings, it is evident that neither makes much of the specifically tropical setting. There is no play with the vividness and light of tropical skies, such as one might find in a work by William Hodges or Conrad Martens.⁷⁶ Schetky's images of the Thetis salvage were more orthodox in intent, dedicated to a vision of British endeavour in extreme conditions. The lithograph versions of these images which accompanied Dickinson's 1836 Narrative exploited this structure of feeling through their own captions, which treated the principal instruments of the salvage operation – the derrick, the diving bell and the suspension cable – as more than equal to the forces of nature. In these images, as much as in Dickinson's text, the failure implicit in the Thetis' shipwreck is redeemed, the self-image of the nation salvaged, by the successful recovery of her treasures.

Conclusion

In this paper, we have examined a fleeting episode in British maritime history, an event narrated in a variety of different registers, naval, legal, scientific, literary, commercial and aesthetic. As shipwreck tales go, the loss and salvage of the Thetis was not a particularly noble or exceptionally dramatic event: on the contrary, the story of a frigate, laden with bullion, which smashes full-sail into a 'well-known' coastline, is not exactly the stuff of romance. Yet in the course of this event, the network of power and knowledge was

momentarily broken, and catastrophically: lives were lost, treasure sank to the sea-bed, and hundreds were momentarily stranded on a tropical island. How could this be put right, the scene re-composed, the story made intelligible? As we have suggested, there were a variety of responses. From the point of view of experienced navigators and authoritative mathematical practitioners, the sources of error were potentially intelligible, whether they were human (the failure to keep regular and precise observations) or physical (the effects of local attraction): though the experiment of navigation had failed, there were nonetheless important lessons to be learned. The Admiralty, for its part, treated this like every other shipwreck as a disciplinary matter: the purpose of a court martial was to measure individual culpability through examination of all the available evidence, including narratives of the event and inscriptions made on the spot. Shipwreck narratives and imagery in other contexts had different functions, connecting the specificities of place and time with larger issues of patriotic, moral and religious significance: there, maritime catastrophe might be represented in the poetic registers of heroism, tragedy or retribution. With the Thetis, however, the story of the salvage ultimately took precedence over that of its loss.

Our own investigations into the wreck of the Thetis and its aftermath has yielded a veritable treasure trove of visual images, in the form of numerous maps, charts, diagrams, and paintings; as well as multiple narratives presented in a variety of different contexts, from the court-martial to the scientific academy. This multi-faceted archive gives some indication of the ways in which knowledge of an episode on the shores of Brazil travelled across the globe in words and images. In our account, we have also drawn attention to the various sites involved in the production of these imaginative geographies: in beach huts on the seashore, from diving bells, on board ship, in the salons of scientific academies, in the

offices of the Admiralty, and in the court-room. The power of forms of knowledge which can travel have received much attention from historians of science, especially in an era of maritime expansion: to this we add a particular concern with moments of disturbance, and the recomposition of networks of authority and control through the narrating and visual representation of crisis.⁷⁷

Our account of the wreck of the *Thetis* has also highlighted the extent to which the representation of distant events varied between different sorts of account produced within Britain itself. On the one hand, conventional ways of representing the otherness of tropical nature do make their appearance. For example, there are the weird tropical currents and extraordinary winds which some supposed to be the cause of the wreck, and in a wider context such phenomena did provide material for the contemporary literature and lore of tropical travel. Furthermore, those who emphasised the dogged determination of the salvage effort tended to highlight the effects of tropical nature on the bodies of those men encamped on Cabo Frio island, whose ‘struggle with the vicissitudes of a tropical climate’ was accounted for in pounds sterling at the eventual reckoning of reward.⁷⁸ The poetics of the colonisation of wild nature also find clear expression, especially in Dickinson’s published Narrative, with its tale of labour and discipline under tropical skies; and again in ritual tropes of racial difference which coloured accounts of the relations of the pseudo-colonisers with various Brazilian others. On the other hand, a specifically tropical imaginary is far less evident in other kinds of evidence, notably the coastal chart, the magnetic map or the sublime landscape. Tropes of tropicality are thus not always the most visible features in representations of the tropical world: sometimes, indeed, the effect of visualisation is to obscure tropicality altogether.

The wreck and salvage of the Thetis left its own mark on the landscape of the island at Cabo Frio in 1830-2, and in the minds of many of those who have set eyes on the place since. Charles Darwin, who sailed by in the Beagle in April 1832, during the final stages of the salvage operation, described it in his diary as a ‘memorable spot’. So too did the artists Conrad Martens and Oswald Brierly, the last of whom followed the practice of many of the chart-makers and surveyors who had previously represented the scene, by placing an ‘X’ on his sketch of the island to mark the spot where the ship and its treasure had been lost.⁷⁹ A lighthouse was built on the cliffs soon afterwards, probably in response to the wreck, though it was located too high to be of much use.⁸⁰ Eventually, the story of the Thetis became part of local folklore, grist to the mill of the heritage industry, re-awakened periodically by successive diving expeditions at the site. According to a modern tourist brochure for a local guest house which bears its name, ‘Nearly two hundred years ago the English frigate Thetis wrecked on the shores of Arraial do Cabo, giving rise to a “cabista” population, the fruit of Anglo-Brazilian miscegenation’. Shipwreck tales, in this case the story of the sailors who remained ashore, continue to serve material ends.

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Notes

¹ R. Fitzroy, Narrative of the Surveying Voyage of HMS Adventure and Beagle, between the years 1826 and 1836. Vol. 2: Proceedings of the Second Expedition, 1831-36, London, 1839, 67.

² In the period between 1816 and 1832, fifty-two Royal Navy ships were lost through shipwreck, though in more than half these cases the entire crew were saved: S. A. Royle, Perilous shipwreck, misery and unhappiness: the British military at Tristan da Cunha, 1816-1817, *Journal of Historical Geography* 29 (2003) 521.

³ The story of the wreck and salvage is briefly outlined in E. Gomes Filho, Histórias de Célebres Naufrágios do Cabo Frio, Rio de Janeiro, 1993; A. McConnell, O salvamento da HMS Thetis em 1830, Revista Marítima Brasileira 107, 10-11 (1986) 67-79; R. Sténuit, The wreck of HMS Thetis lost ‘in the Brazils’ in 1830, in: M. Bound (Ed), The Archaeology of Ships of War, Oswestry, 1995, 77-89.

⁴ T. Dickinson, A Narrative of the Operations for the Recovery of the Public Stores and Treasure sunk in HMS Thetis, at Cape Frio, London, 1836.

⁵ T. Baker to R. Dewar, 14 August 1832 (ADM 7/598, PRO).

⁶ In August 1842, John Barrow expressed his ‘disgust’ at Dickinson’s persistence with his claim: Memorandum on the Thetis Case, 20 July 1844 (ADM 7/599, PRO).

⁷ Thetis salvage case: precis for Sir James Graham, 26 May 1854 (ADM 7/599, PRO); The Times, 19 July 1854, 7.

⁸ G. Quilley, The imagery of travel in British painting: with particular reference to nautical and maritime imagery, circa 1740-1800, unpublished PhD Thesis, University of Warwick, 1998, 318.

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- ⁹ B. Venning, A macabre connoisseurship: Turner, Byron and the apprehension of shipwreck subjects in early nineteenth-century England, Art History 8 (1985) 312-315; T. S. R. Boase, Shipwrecks in English romantic painting, Journal of the Warburg and Courtauld Institute 22 (1959) 332-346.
- ¹⁰ In addition to the records of the Court Martial (ADM 1/5476, PRO), the Admiralty archive includes two large files of papers devoted to the Thetis case (ADM 7/598-9, PRO). The Royal Society records are associated with three papers presented at the Society in 1832 and 1834. We have drawn on further related materials at the National Maritime Museum, the Brazilian national archives in Rio de Janeiro, the municipal archives in Cabo Frio and the National Library of Australia, Canberra. The Thetis case was also widely reported in the newspaper and periodical literature in Britain and Brazil.
- ¹¹ Privy Council Appeal, 1834: Joint Appendix, Affidavit of Dickinson, 43-4 (ADM 7/599, PRO).
- ¹² S. J. Harris, Long-distance corporations, big sciences, and the geography of knowledge, Configurations 6.2 (1998) 272.
- ¹³ F. Driver, Distance & disturbance: travel, exploration and knowledge in the nineteenth century, Transactions of the Royal Historical Society, 6th series, 14 (2004) 73-92.

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- ¹⁴ R. Fitzroy, Narrative of the Surveying Voyage of HMS Adventure and Beagle, between the years 1826 and 1836. Vol. 2: Proceedings of the Second Expedition, 1831-36, London, 1839, 67.
- ¹⁵ J. Purdy, The Brazilian Navigator, London, 1844, 141.
- ¹⁶ Letter dated 17 August 1809 (MS 195/3, National Library of Australia, Canberra).
- ¹⁷ F. Driver and L. Martins, John Septimus Roe and the art of navigation, c. 1815-1830, History Workshop Journal 54 (2002) 144-161.
- ¹⁸ B. M. Gough, Sea power and South America: the “Brazils” or South American station of the Royal Navy, 1808-1837, American Neptune 50 (1990) 26-34; L. Martins, O Rio de Janeiro dos Viajantes: O Olhar Britânico, 1800-1850, Rio de Janeiro, 2001.
- ¹⁹ Extrait d’une lettre écrite à bord du vaisseau anglais la Thétis, en date de Callao le 20 septembre 1830, par M. Sayer, Bulletin de la Société de Géographie de Paris 17 (1832) 108-111.
- ²⁰ B. M. Gough, Specie conveyance from the West Coast of Mexico in British warships, 1820-1870, Mariner’s Mirror 69 (1983) 419-33.

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- ²¹ S. Burgess to T. Baker, 6 December 1830, including Narrative of the loss of Her Majesty's Ship Thetis on Cape Frio, 15 minutes past 8 on the night of 5 December 1830 (ADM 1/5476, PRO). See also: Loss of HMS Thetis, Athenaeum, 19 February 1831, 122; Wreck and total loss of His Majesty's Ship Thetis, United Service Journal, 1 (1831) 403-5.
- ²² Thetis court martial, Narrative of the loss of HMS Thetis, by Captain Samuel Burgess, 15 March 1831, and evidence of ship's master William Gowdy (ADM 1/5476, PRO).
- ²³ Thetis court martial, judgement, 21 March 1831 (ADM 1/5476, PRO).
- ²⁴ On the advantages possessed by naval men, in contributing to general science, Nautical Magazine 1 (1832) 180.
- ²⁵ P. Barlow, On the errors in the course of vessels occasioned by local attraction; with some remarks on the recent loss of His Majesty's Ship Thetis, Philosophical Transactions 121 (1831) 215-21.
- ²⁶ J. Cawood, The magnetic crusade: science and politics in early Victorian Britain, Isis 70 (1979) 493-518. On Barlow's own contributions, see D. P. Miller, The revival of the physical sciences in Britain, 1815-1840, Osiris 2 (1986) 127-8; E. G. R. Taylor, The Mathematical Practitioners of Hanoverian England, 1714-1840, Cambridge, 1966, 330-1.

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- ²⁷ P. Barlow, An Essay on Magnetic Attractions, and on the Laws of Terrestrial and Electro Magnetism; comprising a Popular Course of Curious and Interesting Experiments in the Latter Subject, and Early Experimental Method of Correcting the Local Attraction of Vessels on the Compass in all Parts of the World, 2nd edn, London, 1824.
- ²⁸ Sketch of the operations at Cape Frio, Nautical Magazine 1 (1832) 23.
- ²⁹ A. Winter, 'Compasses all awry': the iron ship and ambiguities of cultural authority in Victorian Britain, Victorian Studies 38:1 (1994) 69-98.
- ³⁰ Cawood, The magnetic crusade; P. Barlow, On the present situation of the magnetic lines of equal variation, and their changes on the terrestrial surface, Philosophical Transactions, 123 (1833) 667-73; E. Sabine, Report on the Variations of the Magnetic Intensity Observed at Different Points of the Earth's Surface, London, 1838.
- ³¹ J. Herschel, Preliminary Discourse on the Study of Natural Philosophy, London 1851 edn, 29. The original account of this voyage was published in B. Hall, Extracts from a Journal, Written on the Coasts of Chili, Peru and Mexico, in the years 1820, 1821 and 1822, 4th edn, Edinburgh, 1825. Basil Hall conducted a series of pendulum experiments on the Conway, an account of which were published in Philosophical Transactions 113 (1823) 211-288.

³² For telling summaries of their contrasting naval careers, see W. R. O'Byrne, A Naval Biographical Dictionary, London, 1849, 280, 287.

³³ Proceedings of the Royal Society 3 (1834) 266-7, 271-4. Dickinson's paper was read by the Secretaries of the Society on 20 March 1834 (not 1833 as stated in the Proceedings). See also T. Dickinson to J. G. Children, 12 March 1834 (Royal Society archives, London).

³⁴ The full manuscripts are held in the Royal Society archives: T. Dickinson, Narrative of the proceedings of Commander Thomas Dickinson of His Majesty's Sloop Lightning, while employed in the enterprise for the recovery of the public stores and other property sunk in His Majesty's late frigate Thetis on the South-West side of the island of Cape Frio (dated 28 March 1832); F. De Roos, An account of some operations executed at Cape Frio by the officers and crew of HMS Algerine (received 14 January 1834).

³⁵ The connection between the reading of papers to the Royal Society and the progress of the court case is clear from contemporary accounts: see the letters of Jenkin Jones and Thomas Dickinson in United Service Journal, 20 March 1834 (pp. 533-5) and February 1835 (pp. 263-4). This exchange was part of a longer correspondence on the subject of the salvors' claims, which also involved De Roos: United Service Journal, March 1835, 418-9; April 1835, 543-6.

³⁶ The evidence presented to the Court included Dickinson's daily log of the salvage operation: Privy Council Appeal (1834), Journal of the Proceedings going on at Cape Frio, Joint Appendix, 73-110 (ADM 7/599, PRO).

³⁷ Cases Determined in the High Court of Admiralty: HMS Thetis, 20 March 1833 (ADM 7/599, PRO). The Admiralty Court's judgement pleased no-one, except the Admiralty, which was awarded costs for wear and tear of its ships. Dickinson contested Baker's right to a share on the grounds of his rank alone, while Baker (supported by the underwriters) insisted that his proportion was too low. Both appealed to the Privy Council, which awarded them each a further sum, while confirming the Admiralty's deduction. While De Roos did not join the appeal to the Privy Council, he renewed his claim for additional reward following the decision of the court in June 1834. See Reports of Cases Before the Privy Council, 19-20 June 1834; J. De Roos to G. Elliot, 27 June 1834 and 26 November 1835; J. De Roos to S. Herbert, 23 August 1843 (ADM 7/599, PRO).

³⁸ Owen, whose ship HMS Eden visited the site of the salvage operation in May 1831, praised Dickinson's skill and ingenuity in constructing the derrick: High Court of Admiralty: HMS Thetis, 20 March 1833, 52 (ADM 7/599, PRO).

³⁹ Sketch of the operations at Cape Frio, Nautical Magazine 1 (1832), 22, 68, 126.

⁴⁰ J. Jones, Narrative of proceedings of Commander Thomas Dickinson of HMS Lightning, July 1831 (JON/8, National Maritime Museum, London).

⁴¹ T. Baker to G. Elliot, 10 August 1832 (ADM 7/598, PRO).

⁴² Temporary diving-bell, Transactions of the Society of Arts 54 (1843) 97-101.

⁴³ Privy Council Appeal (1834), Joint Appendix, Burchett's evidence, 36-40 (ADM 7/599, PRO).

⁴⁴ Cases Determined in the High Court of Admiralty: HMS Thetis, 20 March 1833, 46-7.

⁴⁵ T. Dickinson, Letter to the Right Hon. Sir James Graham, upon the 'Thetis' Salvage, London, 1854, 15.

⁴⁶ Dickinson, A Narrative of the Operations, 36, 44, 66-7, 79.

⁴⁷ Narrative of the proceedings of Commander Thomas Dickinson (Royal Society archives) 6.

⁴⁸ Dickinson, A Narrative of the Operations, 35-6, 104-5.

⁴⁹ Sketch of the operations at Cape Frio, Nautical Magazine 1 (1832) 73-4.

⁵⁰ Dickinson, A Narrative of the Operations, 133-5.

⁵¹ Dickinson, A Narrative of the Operations, 39, 62. The bell-men testified in support of Dickinson's case. As members of the crew of the Lightning, they would benefit proportionately for any compensation awarded to him.

⁵² As one Brazilian newspaper reported, 'The fishermen were filled with pity for the crew in misfortune, and conceded their huts, with the characteristic civility of our Nation, offering all the help at their reach; even before receiving the letter from the Ministry of External Relations, the local inhabitants of Cabo Frio have shown they were truly Brazilians' (Diario Mercantil, 21 December 1830, 3 January 1831, our translation). Cf. Thetis court martial, Narrative of the loss of HMS Thetis, by Captain Samuel Burgess, 15 March 1831, and evidence of ship's master William Gowdy (ADM 1/5476, PRO).

⁵³ G. Hamilton to G. Elliot, 20 August 1831 (ADM 7/598, PRO); Atas das Legislaturas da Câmara Municipal de Cabo Frio, 1830-1832 (Cabo Frio Municipal Archives).

⁵⁴ T. Dickinson to T. Baker, 31 March 1831 (ADM 7/598, PRO); Dickinson, A Narrative of the Operations, 113-4, 126-32. On images of tropical bounty, see P. Hulme, *Dominica*

and Tahiti: tropical islands compared, in: F. Driver and L. Martins (Eds), Tropical Visions in an Age of Empire, Chicago, 2005, 77-90; J. Connell, Island dreaming: the contemplation of Polynesian paradise, Journal of Historical Geography 29 (2003) 554-581.

⁵⁵ B. M. Stafford, Voyage into Substance: Art, Science, Nature, and the Illustrated Travel Account, 1760-1840, Cambridge, Mass., 1984, 25.

⁵⁶ E. Eigen, Where landscape ends, the sea begins: understanding seascape, in: H. A. Salgueiro (Ed), Paisagem e Arte: A Invenção da Natureza, a Evolução do Olhar, São Paulo, 2000, 111-120.

⁵⁷ Cf. H. M. Rozwadowski, Small world: forging a scientific maritime culture for oceanography, Isis 87 (1996) 409-429.

⁵⁸ H. Blumenberg, Shipwreck with Spectator, Cambridge, Mass., 1997, 44.

⁵⁹ Wreck of the Thetis, Nautical Magazine 1 (1832) 128.

⁶⁰ T. Dickinson to T. Baker, 16 February 1831, 19 March 1831 (ADM 7/598, PRO).

⁶¹ Wreck of the Thetis, Nautical Magazine 1 (1832) 128. A similar image appeared in Dickinson's Narrative.

⁶² For an account of the development of seafloor mapping, see R. E. Doel, T. J. Levin and M. K. Marker, Extending modern cartography to the ocean depths, this issue.

⁶³ S. Smiles, Eye Witness: Artists and Visual Documentation in Britain, Aldershot, 2000, 41-43.

⁶⁴ This work has recently been re-published in facsimile: see M. Fardell and N. Phillips (Eds), Submarine Researches on the Wrecks of his Majesty's Late Ships Royal George, Boyne, and Others, by Mr. C. A. Deane, in his Improved Diving Apparatus, London 2001.

⁶⁵ M. J. S. Rudwick, Scenes from Deep Time: Early Pictorial Representations of the Prehistoric World, Chicago, 1992, 47, 231-2.

⁶⁶ For an overview of the expansion of marine science in the early nineteenth century, see M. Deacon, Scientists and the Sea, 1650-1900: A Study of Marine Science, Aldershot, 1997, 220-248.

⁶⁷ B. Hall, Diving Operations at Portsmouth, Nautical Magazine 1 (1832) 360.

⁶⁸ D. Lambert, L. Martins and M. Ogborn, Historical geographies of the sea: introduction, in this issue.

⁶⁹ Quoted in P. Carter, Dark with excess of bright: mapping the coastlines of knowledge, in D. Cosgrove (Ed), Mappings, London, 1999, 144.

⁷⁰ T. Baker to G. Elliot, 14 March 1831, T. Dickinson to T. Baker, 19 March 1831 (ADM 7/598, PRO); Dickinson, A Narrative of the Operations, 37, 41-9.

⁷¹ F. De Roos, An account of some operations executed at Cape Frio by the officers and crew of HMS Algerine (Royal Society archives), 5; Dickinson, A Narrative of the Operations, 61.

⁷² J. M. W. Turner to W. Buckland, 30 November 1843, in: J. Gage (Ed), Collected Correspondence of J. M. W. Turner, Oxford, 1980, 193.

⁷³ Turner to Buckland, in: Gage (Ed), Collected Correspondence of J. M. W. Turner, 193-4. That Schetky's paintings were the source of the engraved views is not acknowledged either in Dickinson's Narrative or, it appears, in Turner's letter.

⁷⁴ J. L. Roget, A History of the Old Water-Colour Society, Vol. I, London, 1891, 230-231.

See also D. Brook-Hart, British Nineteenth-Century Marine Painting, Woodbridge, 1974, 17-19.

⁷⁵ ‘HMS Lightning beating up to undertake the work for recovering stores and treasures sunk in HMS Thetis at Cape Frio 1830’, Geyer Collection, Rio de Janeiro, Brazil.

⁷⁶ L. Martins, The art of tropical travel, 1768-1830, in: M. Ogborn and C. Withers (Eds), Georgian Geographies: Essays on Space, Place, and Landscape in the Eighteenth Century, Manchester, 2003.

⁷⁷ Harris, Long-distance corporations, 273.

⁷⁸ High Court of Admiralty: HMS Thetis, 20 March 1833, 50 (ADM 7/599, PRO).

⁷⁹ C. Darwin, Diary of the Voyage of HMS Beagle, Vol. I, London, 1986, 3 April 1832, 45; C. Martens, Journal of a Voyage from England to Australia 1833-35, Sydney, 1994, 4 July 1833, 8-9; O. Brierly, Sketches made in England and during the voyage to Australia in the Wanderer, 1841 (PX*D71, Mitchell Library, Sydney).

⁸⁰ A sketch of Cabo Frio island made by a naval officer on service in the Pacific Station (1849-52) is thus annotated with the caption ‘Lighthouse on highest point’: Album of

watercolours by Admiral Sir Edward Gennys Fanshawe (PAI4607, National Maritime Museum, London).