The Perception and Understanding of New Technology: A Failed Attempt to Establish Transatlantic Steamship Liner Services 1824-1828

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Dans les années 1820, le développement des premiers navires à vapeur, une amélioration économique, et une vogue de promotions de sociétés par actions a donné lieu à la naissance de l'Atlantic and Colonial Steam Navigation Company. Cette société a visé à exploiter un service transatlantique de paquebots à vapeur en partance de Valentia en Irlande occidentale. Ce port du Royaume Uni, le plus proche de l'Amérique, a réduit au minimum la traversée de l'atlantique et a aidé à surmonter le problème du rayon d'action des vapeurs contemporains limité par une consommation de combustibles élevée. Soutenue par des patrons puissants, la compagnie a trouvé les fonds nécessaires et a passé commande de deux navires, mais dans les deux ans qui ont suivi s'est effondrée dans l'acrimonie. Ce projet, aurait-il pu fonctionner? Il semble peu probable donné le manque de vraie planification et de gestion appropriée. En fin de compte, les développements de la machine à vapeur, que les instigateurs n'ont pas prévus, ont réduit la nécessité des traversées courtes.

Communications between Europe and the Americas have been an essential element in the development of the Atlantic economy. In this context the coming of steam in the nineteenth century was truly revolutionary in its impact. Not merely did steam bring greater speed; it also brought greater reliability and the regularisation of commercial intercourse through scheduled liner services.[1] These attributes were

1 An indication of the impact of the early steamships can be found in: John Armstrong and David M. Williams, "The Steamship as an Agent of Modernisation, 1812-1840," *International Journal of Maritime History*, XIX, 1 (2007), 145-160; Sarah Palmer, "'The most indefatigable activity': The General Steam Navigation Company, 1824-50," *Journal of Transport History*, 3rd ser. I (1982), 1-23; idem., "'Experience, experiment and economics': factors in the construction of early merchant steamships," in Keith Matthews and Gerald Panting, eds., *Ships and Shipbuilding in the North Atlantic Region* (St John's, Newfoundland, 1978), 233-247; Gordon Jackson, "Operational problems of the transfer to steam: Dundee, Perth & London Shipping Company, 1820-1845," in T. C. Smout, ed., *Scotland and the Sea* (Edinburgh, 1992), 154-181; J. Colin Bain, "The Perth Steam Packet Company and the *Atholl*: an example of an early steamship company and its ship," *Mariner's Mirror,* XCI, 3 (2005), 410-420; Freda Harcourt, *Flagships of Imperialism: The P & O*

unobtainable under sail and it was not until the late 1830s that steamships were sufficiently improved technologically to provide a measure of regular, transatlantic steam departures and arrivals. Long before this, however, the concept of liner services had been considered. Indeed, in 1819 an enterprise named the Ocean Steam Ship Company was incorporated in New York. Its organisers stated their aims as "desirous of constructing and employing steamships in navigating the oceans," but nothing came of this project.[2] In the same year came the much-publicized transatlantic crossing of the *Savannah.* It was a dubious achievement for steam as the engine was used for only about thirteen percent of the whole voyage. [3] More significant was a development in Britain in 1824, little more than a decade after the first commercial utilisation of the steamship in Europe, the operation of the *Comet* on the Clyde in 1812. The American and Colonial Steam Navigation Company as the venture was entitled (henceforth A & C) proved unsuccessful and perhaps this explains its neglect by some historians of transatlantic shipping.[4] However, the A & C's history merits consideration on a number of counts. Apart from its remarkably early timing, its imaginative ambition and its sad failure, the company is of interest in terms of what it reveals about the level of contemporary appreciation of technology. Living with and understanding technological progress are processes that are nowadays taken for granted; in the early stages of industrialisation these were new experiences to be confronted. This paper reviews the thinking that lay behind the formation of the A & C, its unfortunate history and the insight it provides into the prevailing limited understanding of new technology and its operation.

II

By 1824, the steamship in Britain had undergone just over a decade of remarkable progress in terms of number of vessels, routes served and in creating a new product, cheap passenger transport. There was a widespread belief in the potential of steam navigation and this was enhanced by the economic climate of the time, one of confidence that led to an investment boom beginning in 1824. In 1824-25, according to the seminal work on cyclical fluctuations in the British economy, "after the preceding years of revival (based largely on expanding exports), savings were abundant in 1824, and the view taken of the future highly optimistic." The outcome for the financial market was an explosion of company promotions and bond issues most notably by foreign governments and mining companies but also in the fields of docks, railways, utilities and

Company and the Politics of Empire from its Origins to 1867 (Manchester, 2006).

2 R.G. Albion, *Square–Riggers on Schedule* (Princeton, 1938), 256-7.

3 H.P.Spratt, *The Birth of the Steamboat* (London, 1958), 106-110; B.W.Bathe, *Steamships I: Merchant Ships to 1880* (London, 1969), 16-17; Tom Hughes, *The Blue Riband of the Atlantic* (Cambridge, 1973); Lincoln Paine, *Ships of the World: An Historical Encyclopedia* (London, 1997), 460-1.

4 Albion makes no mention of the company in his *Square Riggers.* Nor is there any reference in P. Allington and B. Greenhill, *The First Atlantic Liners* (London, 1997). A paragraph containing details of a vessel owned by the company appears in N.G. Bonsor, *North Atlantic Seaway* (Prescot, 1955), 2.

steamships. All "came for funds to London on an unprecedented scale."[5] In total, during 1824-25 some 624 companies hoping to raise £372 million and seeking to dispose of about six million shares were brought to the market.[6] Some seventy of these companies involved steam navigation.[7]

The time then was a popular one for the promotion of new ventures. The A & C possessed appeal as there was a real desire within commercial circles for more efficient communication across the Atlantic following the revival of activity and trade from the depression that had succeeded the ending of the French wars in 1815. This was evident in the development, by New York entrepreneurs, of sailing packet services that aimed at more regular transatlantic services through operating on set departure times. The first of these, the Black Ball Line. was formed in 1817 operating between New York and Liverpool with sailing days on the 1st and 16th of each month. In 1822, two further lines commenced operation, the Red Star and the Swallowtail and by the autumn of that year the New York-Liverpool route was served through four services monthly in both directions.[8] However, while there was now a regular schedule of departure dates, arrival times were uncertain being still dependent on the vagaries of the weather. There was then an opportunity for a steamship service that could provide a swifter passage and greater degree of certainty in scheduled arrival times.

It was this gap in the market that the A & C sought to fill. The aims and proposal of the company are best expressed in the company's petition to Parliament for joint-stock status[9] and in an abbreviated prospectus that appeared in the press. The petition, presented to the House of Commons on 16 March 1825, was "of several persons desirous of forming themselves into a Joint Stock company for the purpose of building, equipping and navigating vessels, to be propelled by steam or other artificial powers, to be employed in the carriage of goods and passengers between Ireland and his Majesty's Colonies in America and the West Indies."[10]

Details of the Company's proposals appeared first at a public meeting in June 1824 held at the City of London Tavern, and then in a company prospectus. The latter was presented in an abbreviated form in the press, once the company had gained

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5 Arthur D. Gayer, W.W. Rostow and Anna J. Schwartz, *The Growth and Fluctuation of the British Economy 1790-1850*, (Harvester edn., Hassocks, 1975), I, 171.

6 Henry English, *A Complete View of the Joint Stock Companies formed during the Years 1824 and 1825* (London, 1827).

7 Calculated from English, *A Complete View of the Joint Stock Companies* and Anon, *A List of Joint Stock Companies the Proposals for which are now or have been lately before the Public* (London, 1825). A full account of the causes and outcomes of the boom in steamship promotions is provided in David M. Williams and John Armstrong, "Promotion, speculation and their outcome: the steamship mania of 1824-5," *ASLIB Journal* (forthcoming).

8 See Albion, *Square-riggers,* 20-35 and F.C. Bowen, *A Century of Atlantic Travel 1830-1930* (London, n.d. [c1930]), 5-9.

9 Under the so-called "Bubble Act" of 1720, corporate, joint stock status could only be obtained through a special act of Parliament.

10 *Journal of the House of Commons*, 80 (February 1825 – January 1826), p. 213. col 1.

parliamentary approval for joint stock status and was soliciting subscribers. An advertisement in *The Times* in August 1825 read as follows:

> The object of this Company is to establish lines of steam vessels to communicate regularly between the United Kingdom and North America, the West Indies, Columbia, Mexico and the New States of America.
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> Steam vessels will proceed from the Thames, touching at intermediate ports, to the harbour of Valentia, a port possessing acknowledged natural advantages, free from all port charges: from whence one steam vessel of a large class, with adequate machinery and fuel, will proceed once a fortnight to Halifax and New York; and a second will proceed once a month, by Madeira and the Leeward Islands, to Jamaica, returning by Bermuda and Fayal.
>
> Communications are forming between Jamaica, Carthagena, Vera Cruz, Havannah and the Ports of South America.
>
> A branch line between Halifax and Quebec is also forming.
>
> Lines are also forming to communicate with the main lines from Glasgow, Liverpool and Bristol, and also from Galaway and Limerick to Valentia.
>
> Passengers will be brought nearly to a certainty in point of time, which compared to sailing will be abridged fully one third. Passengers will have a choice of continuous steam navigation, or of a passage by mails on the shortest lines to the ultimate point of embarkation.[11]

The company's proposal was thus to run steamship lines out of Valentia, on the west coast of Ireland, one line to Halifax and the other to Jamaica. Feeder services would bring passengers from various ports in the UK to Valentia. Passengers to New York would continue thence from Halifax on the same vessel. Passengers for other destinations in Canada, Central and South America would be conveyed there by feeder services operating from Halifax and Jamaica. The reverse arrangements would operate for the eastward crossing.

The most obvious question to arise from this proposal is why Valentia was to serve as the hub of the network? Valentia was a small island off the coast of County Kerry, in the west of Ireland.[12] It was isolated and of little consequence; however, it was to all intents and purposes the most westerly point of the United Kingdom and closest to America.[13] The virtues of such an embarkation point were that it would provide for the shortest transatlantic crossing and thereby reduce consumption of fuel. This was a crucial factor in the early years of steam navigation when the limited efficiency of engines necessitated much of a vessel's cargo capacity being given over to coal bunkers and the completion of any direct long distance voyage was often dependent on whether fuel supplies would last out. Hence the proposed crossing to North America was to Halifax

11 *The Times*, 6 August 1825, p.1, col. A.

12 On Valentia see Daphne D.C.P. Mould, *Valentia: portrait of an Island* (Dublin, 1978); Nellie O'Cleirgh, *Valentia: a different Irish Island* (Dublin, 1992).

13 The distance between Valentia and St John's, Newfoundland is about 1900 miles.

where fresh coal supplies could be obtained before proceeding to New York. In the case of the line to Jamaica, a call was to be made at Fayal in the Azores.[14]

The one other aspect requiring comment is the emphasis within the advertisement on services to Central and South America. In the capital market of 1824-25, "the boom in Mexican and South American mining shares was the most sensational feature"[15] and public interest in the region was increased by the British government's formal recognition of a number of new states. Thus the A & C saw real commercial opportunities and also a chance to appeal for funds from those interested in Latin American commerce.[16] Serving the vastly important United States trade, the colonies in Canada and the Caribbean, and South America, the A & C's projected services seemed to offer a diverse potential.

III

It is perhaps not surprising to discover that the likely leading figure in the formation of the A & C was Maurice Fitzgerald, the eighteenth holder of the title of the Knight of Kerry.[17] Fitzgerald possessed estates in the west of Ireland and within his property was the island of Valentia. Fitzgerald – who clearly would prove the major beneficiary of the A & C's proposals – was to be a leading figure in the initiation and conduct of the company. However, although Fitzgerald is central in the story of the company, his imagination and vision were enthusiastically shared by many others.

The first indication of the project was the meeting held in June 1824 which was reported by *The Times* under the headline, "Steam Communication With America."[18] It is clear that Fitzgerald had worked hard to enlist support for the meeting for in attendance were the Marquis of Lansdown, the Earls of Meath and Ormond, Lord Carberry (who acted as Chairman of the meeting), the Hon. C.H. Hutchinson, MP, Sir William Adams, Mr Spring Rice MP. and "several other gentlemen connected with the American trade." Not present for the start of the meeting, but expected, was a Mr Randolph – "just arrived from America."[19] Besides the gathering of such a body of important support, prior to the meeting a draft prospectus had been drawn up for the flotation of a company "to establish a line of packets, to sail weekly from the excellent harbour of Valentia, in the south-west extremity of Ireland, to the city of New York."

As might be expected, the first and principal speaker at the meeting was Fitzgerald. He stressed the importance of American commerce to Britain, and drew attention to that with South America. While observing that the Americas trade "was chiefly carried on in well-furnished sailing packets from Liverpool" he noted the

14 *Prospectus of a Joint Stock Company for Steam Navigation: from Europe to America, and the West Indies* (London, 1825), 17. Henceforth, *Prospectus 1825*.

15 Gayer, Rostow and Schwartz, *The Growth and Fluctuation*, 188-9.

16 See F.G. Dawson, *The First Latin American Debt Crisis: the City of London and the 1822-25 loan bubble* (New Haven, Conn., 1990).

17 Fitzgerald (1778-1849) enjoyed a varied career. He served as vice-treasurer in Wellington's government and thereafter regularly corresponded with Wellington. This friendship may explain Wellington's presence as a patron of the A & C. See O'Cleirigh, *Valentia*, 7-10.

18 *The Times*, 28 June, 1824, p. 3, col. C.

19 Ibid. It is not clear whether Randolph actually attended.

"impediments" to sail and that "communication might be better managed by steam navigation." "In carrying into effect this project" he saw as a "guiding principle … that the line of communication should be formed between the nearest convenient points of Ireland and America." Such a route could never compete with Liverpool in terms of commerce but he believed that passengers would prefer the shorter voyage to be obtained by departing from Valentia thus avoiding exposure to a "tardy coastal voyage" before embarking on the actual crossing.[20] Fitzgerald recognised that Valentia had "no existing commerce" but stressed its potential as an *entrepot* for "every other part of England, Ireland and Scotland" and believed the scheme had sufficient potential for "immediate profit" to appeal to the "British capitalist" as an investment. A Mr Nimmo, the "Government civil engineer, who was employed in various public works in Ireland" was called as an expert technical witness.[21] He supported the proposal and reported his view that a steam vessel of some 1000 tons burden could, in a fortnight navigate the Atlantic from Valentia to Nova Scotia. Fuel consumption would be around 400 tons. Discussion then ensued and according to *The Times* there was "approbation of the outline [plan]," albeit some reservations as to whether Valentia was the most suitable port of departure. A committee was appointed to consider the plan.

Although we know nothing of this committee or its constituents, the outcome of its deliberations was that in March 1825 the petition for a company with joint stock status was presented in the House of Commons. Prior to this the "would-be" company's proposals had been submitted to certain departments of government "with a view to obtain their encouragement of the undertaking as useful to the public service."[22] Presumably this was in the hope of gaining contracts for the carriage of mail and troops. Such services had been noted as possibilities in a prospectus published around the same time.[23] The prospectus invited subscriptions to the company that was to have a capital of £600,000 divided into 6,000 shares of £100 each with the "responsibility of the proprietors limited to the amount of the shares held by them respectively." The latter was an important proviso in an era when limited liability did not exist.

The various stages of parliamentary procedure were undertaken with Messrs Talbot, Spring Rice and Fitzgerald handling the particular elements and on 22 June 1825, the bill permitting company formation gained Royal Assent.[24] By the time the company came to solicit investors through the press its personnel in terms of patrons and directors had been augmented to embrace those who can only be described as the great and the good. The company's patrons were HRH, the Duke of York and his Grace the Duke of

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20 Much was made of this. Both the Irish Sea and the English Channel were difficult seaways often involving lengthy and stormy passages. The A& C's prospectus contained details and calculations of respective timings. *Prospectus 1825*, 11-16.

21 Nimmo subsequently produced an Admiralty Chart for Valentia. See *The Harbour of Valentia by A. Nimmo … 1831* (London, 1832).

22 *Journal of the House of Commons*, 80, (February 1825 – January 1826), p. 213, col. 1.

23 *Prospectus, 1825*, 18-19.

24 *Journal of the House of Commons*, 80, 17 March 1825, p.218, col. 2; 18 March 1825, p.223. col. 2; 28 March 1825, p. 270, col. 2; 14 April 1825, p. 303, col. 1; 6 June 1825, pp. 496-7, cols. 2 and 1; 10 June 1825, pp. 520-521, cols 2 and 1; 16 June 1825, p. 543, col. 1.

Wellington. President was The Most Noble the Marquis of Lansdowne. The Directors – numbering eighteen in all – included two vice-admirals (both with the honour of KCB), two captains, RN, Beaufort and Fullerton, and five MPs including Fitzgerald. Among the remaining nine directors was G.R. Porter who was associated with the Board of Trade and later gained prominence as a free trader and economic commentator. The company's secretary was listed as G. Gregory Esq. It is hard to imagine a more prestigious assembly. Although the motives of individual directors for participation cannot be ascertained, it must be assumed that they understood, and were supportive of, the project.

IV

The promotion and proposals of the A & C provide an insight into the contemporary understanding of technology. In retrospect the Company's proposals were imaginative, ambitious and probably unrealistic but in reviewing the plans, advertisement and prospectus of the A & C it is important to avoid hindsight judgements. Likewise, one must not take the text of advertisements and prospectuses at face value. Such publications, which were totally unregulated at this time, are by their nature designed to persuade and prone to exaggeration.[25] However, it should be noted that in this instance – with single shares of the value of £100 – the intended readership and potential subscribers were individuals who might reasonably be assumed to be more aware of events and developments than the general public. Finally, it must be remembered that the A & C was but one of many steamship navigation companies presenting itself at this time. While many of these were more realistically aimed at the coastal and home trades others ranged much further and were as ambitious as the A & C. The London, Barbados and the London, Portsmouth & Jamaica Steam Navigation Cos. were two such companies, both of which raised some capital and amongst enterprises that were projected but never actually came to the market were companies seeking to serve Canada and Nova Scotia, Havannah and Hayti, the United States, Bombay and Calcutta and Columbia and Mexico.[26] Thus the A & C was not unique in its grand design nor were the attitudes to technology that it embodied unrepresentative.

In reviewing the A & C's proposals, the first observation to make is the extraordinary confidence and excitement demonstrated in steam navigation. The company's prospectus opened by observing. "There is nothing which so much distinguishes this age of improvement from all former periods, or which has met with such general patronage as the efforts which are every where making for facilitating the communication between distant places" and it went on to comment that "none of the numerous and splendid applications of science to the arts of life have been hailed with such general approbation, or is likely to be so important in its consequences as the employment of the Steam-engine, in overcoming the delays and difficulties of navigation."[27] It would be easy to dismiss this as copywriter's hyperbole but such

25 On Prospectuses see John Armstrong and Stephanie Jones, *Business Documents: Their origins, sources and uses in historical research* (London, 1987), 20-30.

26 Details taken from lists presented in English, *A Complete View of the Joint Stock Companies.*

27 *Prospectus 1825*, 5-6.

comments probably aptly reflect the reaction to the early steamboat. It should be remembered that in 1825 the railway (in a public transport sense) was still to appear; moreover, the steamboat – to the majority of the population – represented the first and most apparent demonstration of the new steam technology. The steamboat was publicly visible – unlike the steam engines employed in industrial processes – and its product in the form of passenger transport was a benefit directly associated with steam. Moreover, the steamboat had in great measure overcome the traditional restraints of sail – wind and tide – thereby "overcoming the delays and difficulties of navigation." To contemporaries the steamboat represented a breakthrough, something new and quite unprecedented in its capabilities.

Such views were reinforced by the extraordinarily rapid spread of steamboat navigation as seen by contemporaries. The promoters of the A & C were very aware of the immense progress made by the steamship and drew attention to every advance in promoting the feasibility of their proposal. They observed that "since the year 1812, when one solitary steam boat of three horse power first plied on the Clyde, between Glasgow and Greenock, almost every great line of communication on the rivers and coasts of England, Scotland and Wales and Ireland and even from hence to the continent, is now occupied by steam vessels of magnitude, with superior machinery, performing their voyages with safety, and a regularity and certainty, even on our most stormy seas, that would have been formerly deemed incredible. At the same time the number of passengers have increased beyond all previous conception."[28] All such claims were basically correct. The steamship had penetrated all the great river and estuarial trades of Britain by 1824; so too, many coastal routes had steamship services and in the home trades there were continental steamship services. In the matter of passengers, the rise was dramatic indeed. Yet in all these instances the take over of steam was not complete and some routes were only in the pioneering stage. In particular coastal services by steam were often only seasonal being suspended during the harsh months of winter. Contemporaries were so taken with the new steam services that they chose to ignore or forget these limitations. Likewise spectacular cases of steam performing what had hitherto been impossible, for example beef being slaughtered in Dublin for sale next day in Manchester[29] or hundreds of people undertaking a pleasure trip from London to Margate and back in a day,[30] were taken as clear evidence of the new transport mode's superior abilities and infinite potential. The transfer from sail to steam by the Post Office for its Irish Sea and cross-Channel services was regarded as an official vote of confidence in the reliability of the steamship.[31]

That the steamship was to all intents and purposes confined to coastal and home waters and relatively short journeys appears to have had little impact on the thoughts of

28 *Prospectus 1825*, 6.

29 *Prospectus 1825*, 7.

30 On the rapid development of steamship excursions see John Armstrong and David M. Williams, "The Steamboat and Popular Tourism," *The Journal of Transport History*, 3rd. ser. 26, 1 (2005), 61-77.

31 J.R. Owen, "The Post Office Packet Service 1821-37: Development of a Steam Powered Fleet," *The Mariner's Mirror*, 88, 2 (2002), 155-75.

those who envisaged ocean services. Single instances of longer voyages were taken as proof of capability and viability. Much publicised was the previously mentioned transatlantic crossing of the *Savannah* in 1819, or a single voyage from Falmouth to Cadiz undertaken by a steam ship.[32] Likewise, in 1825 (the year of the A & C's flotation), the first steamship voyage to India by the *Enterprize*, was much acclaimed although in reality it was hardly a success.[33] Such voyages were held up less as exceptions but rather examples that could prove the norm. To contemporaries, these "cuckoos" (and this is not an inappropriate term to describe these one-off experimental voyages) were the harbinger of a spring in which long distance voyages were viable with steam, the one proviso being the ability to carry, or obtain *en route*, sufficient fuel.

Perhaps the most interesting aspect to observe from the A & C proposals is the strange contradiction of on the one hand the revelling in the technological advance embodied in the steamship but on the other being unable to appreciate that technological advance was to be a continuous process. Contemporaries marvelled at the progress made since the *Comet's* pioneering voyage. That voyage was acknowledged as a breakthrough and watershed in shipping but by 1824 – such was the advance of steam navigation –the *Comet* was seen as a primitive first manifestation given improvements since made. Yet contemporaries seem to have viewed the process as having run its course – that steam navigation technology had reached a ceiling and would not develop further. Progress was envisaged in the sense of the widening of technology – the taking over of more routes – but not in the sense of deepening, through longer oceanic voyages. Here the problem of fuel consumption was seen as insurmountable. Thus in the particular context of the A & C, in the mid-1820s the prospect that steamships would ultimately be capable of steaming direct from say Liverpool, Bristol or Glasgow to the USA was just not foreseen. Such a view was held not only by intelligent lay-persons and commercial men but also by many of the most technologically informed. Dr Dionysius Lardner (who was from the late 1820s one of the most respected authorities on steam power and later railways) was of the opinion that no steamship would ever be able to cross the Atlantic without re-coaling.[34] As late as 1835 at a public lecture in Liverpool, the *Liverpool Albion* reported Lardner as stating "as to the project … of making the [steam] voyage directly from New York to Liverpool, it was … perfectly chimerical; and they might as well talk of making a voyage from New York or Liverpool to the moon."[35] Such overstatements have the power to haunt their authors, and successful crossings having been undertaken in the late 1830s, Lardner subsequently denied making such a comment with its moon analogy.[36]

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32 *Prospectus 1825*, 7-8.

33 A year earlier in 1824 the idea of steam navigation to India had been promoted in a pamphlet. See Captain J.E. Johnson, *An Address to the Public on the Advantages of a Steam Navigation to India* (London, 1824). The *Enterprize's* pioneering voyage is examined in Halford L. Hoskins, "The First Steam Voyage to India," *Geographical Review*, 16, No.1 (1926), 108-16.

34 Lardner was a highly successful populariser of science and technology. A prolific writer, he is best known as the editor of *Lardner's Cabinet Cyclopaedia* (London, 1830-44). See the entry 'Dionysius Lardner' (by J.N. Hays) in the *Dictionary of National Biography.*

35 *Liverpool Albion*, 14 December 1835.

36 Lardner denied his "chimerical" and "moon" comments. He subsequently claimed that he

Contemporaries thus marvelled at the progress of steam navigation and by the mid-1820s probably had an over-optimistic and exaggerated view of steam's capabilities. At the same time, they could not conceive of an era when the existing limitations of steam in terms of range might be overcome. These attitudes were at the heart of the A & C's proposal and a failure to recognise that if the Valentia plans were brought to fruition, sooner or later more attractive routes and services would develop and bring disastrous competition.

V

The A & C gained its corporate status in mid-June 1825. Ironically this was the very month when the Bubble Act was repealed making the A & C one of the last companies to have gone through the old process of acquiring joint stock organisation. The company made much of this, following its name in its press advertisements with the phrase "established by Act of Parliament 6th Geo. 4." Together with its high-powered list of patrons, president and directors, this gave every impression of respectability and probity. There was much initial enthusiasm and *The Times* in August 1825 reported on schemes to establish mail coach services from the principal Irish cities to Valentia which was referred to as the "Great Atlantic Packet Station." There were plans too for a "grand hotel, on a magnificent scale."[37] In a spirit of optimism the A & C embarked on raising its capital. There is some indication that the directors and officials hoped to profit by gaining early privileged access to shares and also suggestions of sharp practice.[38] However, the greatest financial problem faced by the company was that the market had changed. The investment boom had peaked in the early spring of 1825 and thereafter had gone into decline. At the same time, investors were now better informed, less "bullish" and more wary; moreover a rise in interest rates discouraged borrowing to invest. Matters deteriorated further at the turn of the year when a financial crisis saw widespread bank failures and general bankruptcies. Optimism had given way to pessimism and panic.[39]

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had never said that a steam voyage was a physical impossibility, rather he claimed that his view had been "that the long sea voyages that were contemplated could not be maintained with that regularity and certainty which are indispensable to commercial success by any revenue which could be expected from traffic alone, and that without a government subsidy of a considerable amount, such lines of steamers, although they might be started, could not be permanently maintained." The truth of the matter, however, is revealed in a letter to the *Liverpool Albion*, 28 December 1835, written by McGregor Laird in answer to the Lardner lecture. Laird was to be an influential figure in the founding of the British and American Steam Navigation Co. in 1836. In his letter Laird referred to the "moon" comment and signed himself "*Chimer*a." See W.S. Lindsay, *History of Merchant Shipping and Ancient Commerce* (1874; New York: Amity Press, 1965), 168-72.

37 *The Times*, 10 August 1825, p. 3, col. A. *The Times* was drawing on a report that had appeared in an Irish newspaper, the *Western Herald*.

38 *British Traveller*, 6 August 1825, p. 3, col. A.

39 On the collapse of the market and financial crisis see Boyd Hilton, *Corn, Cash and Commerce. The Economic Policy of the Tory Governments 1815-1830* (Oxford, 1977), 215-31.

Such less happy emotions were to the fore on 2 March 1826 when a general meeting of the A & C took place.[40] At this Fitzgerald presented a report by the secretary.[41] It was far from being an encouraging one. It noted that stock in the company had depreciated and attributed this to a "gentleman" (not named) who had issued shares to speculators. The report also contained "severe animadversions" on Captain Fullerton, who had been a director but had subsequently been removed from the board. To Fullerton, was attributed "a desire to ruin the interests of the company, by calumniating the directors and impugning their motives." More positively, Fitzgerald reported that the *Calpe*, 440 tons and 100-horse power, was "nearly ready for sea" and another "famous vessel" building at Glasgow, 500 tons and with an engine on an "improved principle," was nearly completed.

Captain Fullerton, who then spoke, was dismissive of the attacks on his reputation but more significantly disputed the validity of the report on the basis that its framers were not directors as, under the parliamentary act giving company status, before directors could exercise their directorial function, "three-fourths of the capital should be subscribed, or £20,000 should be paid into the hands of the bankers of the company." He claimed that neither of these financial requirements had been met and accused the company of being run by a "secret committee."

Other questions and criticisms were raised and "after clamorous discussion" Fitzgerald, as chairman, was forced to admit that out of 6,000 shares, only 2,680 were issued, though he added that the directors – with one exception – retained the shares issued to them. It was then suggested that the accounts of the company should have been embodied in the report to which Fitzgerald responded that they were forthcoming but could not be included as they had not been officially audited. Mr Gregory, the original solicitor of the company, the unnamed "gentleman" mentioned in the report, then took the floor. He alleged personal pecuniary motives for Fitzgerald's role in the company and claimed that on the formation of the company Fitzgerald had promised to take 1,000 shares and pay a deposit of £10,000 on them and also that Irish interests would take up 2,000 shares. As it transpired, Fitzgerald had only taken up some 170 shares and investors from Ireland a mere 173. Fitzgerald then asked leave to vacate the chair in order to respond to such "personal invective" and spoke spiritedly in defence of his own and fellow directors' conduct. The meeting proceeded. Enough has been said to give a flavour of its tone and it will come as no surprise that when a motion for an adjournment was moved and carried it was "amidst the greatest scenes of uproar."[42]

On 15 March, the adjourned meeting, with Sir Henry Blackwood in the Chair, was resumed to receive the report of the accounts of the company and then that of the directors, adjourned from the previous meeting. The auditors' report provided details of the shareholdings of directors. They were now only eight in number, all with but 100

40 It would appear that earlier meetings of the company had been held but they do not seem to have been reported in the press. See comment of Captain Fullerton, *The Times*, 3 March 1826, p. 4, col. D.

41 *The Times*, 3 March 1826, p. 4, col. D.

42 *The Times*, 3 March 1826, p. 4, col. D.

shares each.[43] This was a far cry from the original list of eighteen and interestingly those names not appearing comprised the most distinguished. It is reported "that after noise and abuse had occupied the polished minds of some of the Shareholders during the period of about an hour, the report of the auditors was received." [44]

Attention then focussed on the directors' report. Discussion was heated and included a further personal attack on Fitzgerald by Gregory and more dignified response by the former.[45] Perhaps of more interest was a statement by the chairman that a further act of Parliament was being sought. Its terms were to permit shareholders who wished to withdraw to do so and receive back their deposits minus expenses; to give the directors the authority to register the company's ships and to decrease the price of an individual share from £100 to £50. In many respects this amounted to a re-launch of the company, and it would appear that this tactic had been conceived by the directors in advance of the bitter meeting of 2 March.[46] The meeting of 15 March had commenced at noon. It concluded somewhat farcically, near six o'clock, when "an intimation was received by the Chairman that the room was wanted for the purpose of making preparation for a dinner party."[47]

Around five weeks later, a special general meeting of the company described as "very thinly attended" agreed on the basis of an "amount of a compromise" to cancel the contract on the second vessel (apparently intended to be named the *United Kingdom*) that the company had building on the Clyde.[48]

In the meantime, the parliamentary procedures to amend the company's original act were taking their course. Fitzgerald took a major role in piloting the bill through its various stages. The amending act gained royal assent on 26 May 1826.[49] What happened thereafter is uncertain although in 1827 a revised prospectus was published.[50] This it would appear met with little response for on 12 April 1827 a further meeting of

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43 Fitzgerald was one of the eight Directors holding 100 shares. This is at variance with Fullerton's comment that Fitzgerald had taken up 170 shares. The implication is that Fitzgerald had quickly sold off 70 shares.

44 *Morning Chronicle*, 16 March 1826, p. 3, cols. B & C.

45 Ibid. Gregory is reported as "in an address of nearly an hour, indulged himself in every epithet of madman, fool and idiot, etc. which his ingenuity could invent with regard to the Knight of Kerry."

46 The Petition to amend the Act relating to the A & C was presented to Parliament on 18 February 1826. See *Journal of the House of Commons*, 81 (February – May 1826), p. 76, col. 2.

47 Ibid.

48 *The Times*, 25 April 1826, p. 2, col. F.

49 For the progress of this Act through Parliament see *Journal of the House of Commons*. 81 (February – May 1826), 18 February 1826, p. 76, col. 2; 13 March 1826, p. 158, col. 2; 14 March 1826, p. 164, col. 2; 20 March 1826, p. 188, col. 1; 1 May 1826, p. 308, col. 1; 4 May 1826, p. 318, col. 2; 20 May 1826, p. 376, col. 1; 26 May 1826, p.377, col. 2.

50 *A Proposal for Steam Navigation from Europe to America and the West Indies* (London, 1827). Henceforth, *Prospectus, 1827*. This prospectus was very similar to that of 1825.

shareholders was held.[51] A sad, but brave, face was put forward by the meeting's chairman, Vice-Admiral Sir Pulteney Malcolm. It appeared that the company's vessel the *Calpe* had been sold. A director's report detailed the fortunes of the company. "The receipts had amounted to £27,200, £10 having been called on each share. The purchase of the *Calpe* steam-vessel had cost the Company £20,638.3s.11d. The act of Parliament and law expenses had cost £2,258.1s.7d. and sundry other charges, including the loss on the sale of the *Calpe*, which amounted to about £9000, had made a total of loss to the concern of £18,301.10s.1d. The balance which remained to be shared was £8,898.9s.11d, or £3.5s.7d. per share, a loss on each share of £6.14s.5d." The chairman closed the meeting by regretting "that the company had not yet been made useful to the community, but had no doubt it would be, if prosecuted."

Such hopes were not to be realised. The revised prospectus would seem to have brought scant response and a final advertisement of a special general meeting of the proprietors "for the purpose of Electing auditors and other matters" on 22 May 1828 is the last we hear of the A & C.[52] Tellingly, *The Times*, while carrying the advertisement did not bother to report the meeting.

VI

The A & C thus disappeared in a welter of accusation and rancour. The attempt to re-launch the company failed miserably. Explaining this outcome must be speculative but irrespective of any hindsight doubts about the inherent viability of the scheme, a significant element in any explanation of failure is that of the matter of timing. As has been noted, the proposal was in line with the thinking of the age but by the time the company was put before the public, confidence and investment funds were shrinking fast. Moreover, in the atmosphere of panic and commercial failures which prevailed at the turn of the year in 1826 suspicions of fraud and malpractice were rife and whether justified or not took an inevitable toll. Nor should the failure of the A & C in any way be regarded as a "special case." Far from it: of the many steam navigation companies promoted in 1824-25, only three survived into 1827, one of these being the A & C which got as far as purchasing one vessel and commissioning another. Of the three companies surviving into 1827, only one, the General Steam Navigation Company (known as, and henceforth, the GSN) was to prove a success. Interestingly the GSN, like the A & C, had ambitiously promoted itself as aiming at providing steam services to India, the Americas, Iberia, the North Sea and Baltic and domestic services. In actuality, before the mid-century, it confined itself to coastal and short sea trades.[53]

Might the A & C have succeeded in its aim to provide transatlantic steamship services if it had been promoted earlier in the investment cycle and acquired fuller financial support? Again, any response is hypothetical; possibly -- if promoted earlier given its initial galaxy of patrons and directors -- it might have raised the funds. But was

51 *The Times*, 12 April 1827, p. 3, col. A.

52 *The Times*, 6 May 1828, p. 2, col. F.

53 On the GSN see Palmer, "'The most indefatigable activity'"; Frank Burtt, *Steamers of the Thames and Medway* (London, 1949), 82-9.

the notion of Valentia as a transatlantic terminus practical or viable? In the long term, obviously not; but in the shorter term, could it have operated with success? Again the answer is probably not, and this brings us back to the issue of the contemporary appreciation of technology. In the 1820s technological achievement, in this instance a transatlantic crossing by steam, was viewed as an attainment in itself. The translation of such an achievement into a commercial operation was afforded far less consideration. The recognition that the profitable application of technological advance required new organisational and managerial skills was often not appreciated.

Who were to be the managers of the A & C? Had Fitzgerald and his fellow directors thought about this issue and about the practicalities of day to day, month by month, business? [54] The operation of a liner service – and this was the intention of the A & C – is a complex business, requiring a fleet of ships if schedules are to be maintained[55] and sophisticated management techniques.[56] The A & C proposed TWO liner services, one to Halifax and New York and the other to the Caribbean with only a single vessel on each. Moreover, the A & C's custom was dependent on feeder services. While such services were an integral part of the company's overall scheme it was never clear who was to provide them, the company itself, or some other party. Either way, the management demands in terms of synchronisation of services were considerable. Nor was the issue of fuel one that imbued confidence. Valentia had no local coal and the blithe comment that a "ready supply of coals which might be had at Valentia from the Bristol Channel"[57] concealed yet another potential problem. Finally, it might be observed that the A & C scheme seems to have elicited little interest in Canada or America. The company did communicate its proposals to the Halifax [Nova Scotia] Chamber of Commerce and received a response: "the Chamber are most favourably disposed towards the measure in contemplation; and they have no doubt, when the plans are matured, and the mode of operation fully stated, that the merchants and other inhabitants of Halifax will be desirous cordially to co-operate with the Company."[58] The chamber clearly viewed the project as neither fully formed or thought through. This was probably a fair appraisal; overall, enthusiasm is no substitute for practicality and there were too many unanswered questions and uncertainties in the A & C scheme. The likelihood of a successful outcome was modest to say the least.

In summary there is no evidence that any of the promoters were crooks, indeed sources have stressed the high social status of some of the founders and directors. There is no evidence of criminal practice. What we do have is a high degree of excessive optimism and the hope to make some money, but it should be borne in mind that

54 A comparison with the General Steam Navigation Co. also floated at this time is perhaps telling. The GSN was successful because it was initiated and managed by businessmen, moreover businessmen with previous experience of operating steamships.

55 For any liner service a company requires at least three vessels to cope with the withdrawal of one vessel through accident or simply routine servicing.

56 On operational techniques see Palmer, "'Experience, experiment and economics,'" 233-247; Jackson, "Operational problems of the transfer to steam," 154-181.

57 *The Times*, 28 June 1824, p. 3, col. C.

58 *Prospectus 1827*, Appendix.

members of the aristocracy and gentry favoured investment in infrastructural projects with the expectation of a direct return on the investment and, less directly, through reducing transport costs and rising land values. Undoubtedly the collapse of financial markets in 1825 created a most inimical environment for raising capital but the major failure was the inability of the organisers to grasp the immediate practical difficulties arising from the limitations of existing new technology, and the strong potential of the rapidly developing technology to throw into question the need for the whole enterprise.

There remain some loose ends to tie up. What of the *Calpe*, the A & C's vessel? She was sold to the Dutch government, re-named the *Curacao* and used for a mail service to the West Indies. On her first voyage to Surinam and Curacao much recourse was made to her sails as there was no real knowledge of the engine's fuel consumption and concern lest coal was exhausted. Experience proved encouraging and, on her return journey to the Netherlands, engines were used for 21 out of 29 days at sea. On later voyages her sails came to be regarded more and more as an auxiliary. A number of authorities regard the vessel as the "first fully fledged steamship" or "real steamer" to operate on the Atlantic,[59] a view, which in choice of vessel, suggests there was some validity in the A & C's plans. The *Curacao* was taken off mail duties in 1830 but remained in the Netherlands' navy until broken up in 1850.

And what of Valentia? Was it to sink back to obscurity? Surprisingly not, for the vision of the port operating as a transatlantic terminus was regularly to re-surface in the next quarter century. The port's potential as the terminus for the shortest Atlantic crossing had a logic that continued to fascinate entrepreneurs. This was the case in the mid-1830s when railways were opening up the possibility of speedier and more efficient land transport within Britain. Lardner, in his "chimera" and "moon" lecture in Liverpool in 1835 foresaw the "constructing of a great highway for steam intercourse between New York and London. Part of that highway was in the process of formation. It consisted of several stages – that of the railroad from London to Birmingham, that from Birmingham to Liverpool, and the steam intercourse with Dublin; but there was another stage – that of Dublin to Valentia …"[60] The Irish Railway Commissioners reviewed the idea of a western port in Ireland in their report of 1838. While not regarding the issue of great importance, the commissioners included Valentia as one of four possible ports but were dismissive of its potential.[61]

Despite such a verdict, Valentia came under consideration a decade later during the second great burst of railway promotion. Among the lines advanced was the Wexford and Valentia Railway. In a report to Lord John Russell, first lord of the Treasury, the promoters set out their case and included statements in support from a number of influential figures. The harbour had been re-surveyed as had the railway route. Various naval captains testified to the excellence of the harbour. These thoughts were echoed (and

59 This section on the *Curacao* draws on Paine, *Ships of the World*, 127; Bowen, *A Century of Atlantic Travel*, 10 and Bonsor, *North Atlantic Seaway*, 2

60 Reported in the *Liverpool Albion*, 14 December 1835, quoted in Lindsay, *History of Merchant Shipping*, 168.

61 "Second Report of the Irish Railway Commissioners," *Journal of the Statistical Society of London*, 1 (1838), 275.

it is no surprise) by the Knight of Kerry. Interestingly he laid stress also on Valentia's virtue as a strategic base. Another voice from the past, now elevated to *Admiral* Beaufort, saw Valentia as a base to garrison Ireland and the elderly Duke of Wellington, a patron of the A & C, was called on to observe that his supplies during the Peninsula War would have been gained far more rapidly if shipped from Valentia, thereby avoiding a Channel passage. All was to no avail and a railway connection was not to be completed until 1893.[62]

Yet Valentia was ultimately to demonstrate the virtue of its special location. 1857 saw the first attempts to lay a transatlantic cable. Valentia was chosen as the British landing point and a year later the cable was successfully laid. Here was a case of a more logical and justified selection of Valentia and by this time there was a fuller understanding of the nature of technology.

62 This section is based on Mould, *Valentia*, 103-6.