TRAINS OF THOUGHT: RAILWAYS AS ISLAND ANTITHESES

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Abstract

This article discusses the impacts of railways on islands, and of islands on railways. It argues that railways constitute a development logic that may work well on sprawling mainlands with industrialised economies and large enough populations residing in high-density clusters but they are hard pressed to achieve viability in service-driven island jurisdictions where there are critical mass constrains in terms of both potential passengers and freight, at times even in spite of relative affluence or high population densities. Thus, the mere existence, or even the improvement, of transport infrastructure does not guarantee economic and social progress. Many railways and their histories have now been somewhat accommodated within the service industry of various islands. However, the ‘fatal attraction’ they have provided to investors, elites and politicians in the past may recur in relation to other, mesmerising technologies, with their promise of serving as development panaceas.

Keywords

Railways, islands, dysfunctionality, transport infrastructure, scale economies

The Fallacy

*Islands are distinct from mainlands in that they represent simplified, exaggerated versions... of exactly those evolutionary processes that occur on mainlands.* (Quammen, 1996: 139)

A common notion attributed to islands is that they are convenient microcosms, “scaled down” versions of what takes place elsewhere (e.g. Bahn and Flenley, 1992). This fallacy not only drives scientists to islands in order to undertake experiments in more manageable settings; it also hones mainlanders and islanders alike to expect and clamour for the local introduction of the same investments and technologies that had proven themselves in other, larger places.

However, is an island really only a mainland writ smaller? After all, islandness and its associated characteristics (such as boundedness by water, remoteness, proneness to exogenous shocks, and relative resource scarcity) are themselves variables that could intervene and cut across many natural and human processes. “Island studies” – the study of islands on their own terms (McCall, 1994) – exists precisely in order to help advance a critical understanding of islandness and to alert us to its idiosyncrasies:
Islandness is an intervening variable that does not determine, but contours and conditions, physical and social events in distinct, and distinctly relevant, ways. (Baldacchino, 2004: 278)

This article dwells precisely on one vivid example of such contouring and conditioning. It focuses on a much sought-after technology that has been proven on (and developed for) continental mainlands, but whose function and promise have not found much of a ‘goodness of fit’ with most island environments; at least, certainly not in the way it was intended to. The article will describe railways’ defining characteristics; it will document the manner in which various attempts have been made to get it (and what it represents) integrated successfully on various island territories, their eventual failures, and the basis for their (rare and even unexpected) successes. Finally, the article will attempt to connect this analysis, and analyses of the effects of modernising technologies generally, to the specifics of island space and the consequences for island development.

Enter the Railway

The introduction of the railroad has been historically the most powerful single initiator of take-offs. It was decisive in the United States, France, Germany, Canada, and Russia; it has played an extremely important part in the Swedish, Japanese, and other cases. (Rostow, 1960: 55)

Our chosen candidate is a clear champion of modernity: it was, especially in the 19th Century, synonymous with development and the opening of erstwhile frontier sites to both settlement and industrialisation. Its economic and political importance placed our nominee squarely in discussions about urbanisation, nation building, entrepreneurship, communications, modern bureaucracies, military science, government-business relations, financial innovation and commercial banking. It had direct consequences by lowering costs of carriage, releasing resources to other tasks; increasing market size, permitting manufacturers and farmers to pursue greater specialisation and reaping of economies of scale; disseminating industrial skills; stimulating the development of iron and steel industries; and dynamising other economic sub-sectors via its resource demands for building and operating systems (eg Andersson et al, 1990; Fishlow, 1965; Elhance and Lakshmanan, 1988). I am, of course, referring to the railway or, as it is popularly known, the train.

With its precise timetables, the train also ushered in a “mobility revolution”, with a new sense of time and distance (eg Roth, 2005). In modern times, thanks to new technology, its high speed versions connect commuters over huge distances. These are the latest icons of economic prowess, mechanical expertise, and even national resolve in beating elemental obstacles, in particular the tyranny of large distances or of obstructing material mass. Their imputed effects and towering importance in economic, political and nationalist terms can be seen to justify why they are often subsidised and supported by the public purse.

The report card is not all glowing, however. Railways also require enormous capital investments to set up; need significant dedicated track-space and materiel; and call for a ‘critical mass’ of users – be they human and/or cargo – a minimal clientele sufficient to pay for itself and its maintenance, and preferably at a profit. An insufficient take-up of
offered services would lead quickly to debt and eventually insolvency. National pride
could quickly transform itself to economic ruin and despair.

Minding the Train

This article argues that a railway as transport infrastructure is essentially antithetical to
island life. It may be looked upon as a technology of aspired progress and development
but its requirements (rail network, take-up, maintenance, capital) cannot be maintained in
the long-term except by very few island economies. In these locations, its
competitiveness could be quickly eroded, unless heavily subsidised from other sources
and thus perpetrating fiscal (and perhaps political) dependency. It appears that, to the
exclusion of a few territories mainly with large populations, the only exceptions to this
trend on islands are cute and exotic, short-distance train services that essentially support
the tourism industry and where the ride per se (rather than getting to one’s preferred
destination) is the attraction, precisely because the technology is a bad fit to the island
environment.

In this light, the railway presents itself as contradictory to the specificity of island life. It
requires scale for setting up as well as for its maintenance and its operations: areas
where islands, their markets and their skilled labour may be found lacking. It thrives on
transporting large numbers of passengers or high volumes of cargo to and from discrete
high-density locations, where again islands, with their usually smaller populations, poorer
(or absent) manufacturing bases and dominant service-oriented economies, rarely
provide any critical mass. An assessment of the fortunes of railways on different islands
suggests that the results have often been disappointing, and at times even economically
and politically compromising.

Whether in the real world or as metaphors, trains (along with such items as bridges,
airplanes and automobiles) are seen as examples of an encroaching, evolving and
intensifying connectedness. Trains have become icons of the relentless pressure of
capitalist expansion and space-time compression, the material equivalent to the
unremitting linkage of the world’s people via information and communication
technologies (eg Janelle, 1975; Harvey, 1990). A train, like other infrastructure or
transportation technologies, is a wonder of structural engineering and a complex feat of
human endeavour. Many have welcomed and celebrated their construction as icons of
prestige, miracles of engineering and instruments of progress (eg Schivelbusch, 1986).
Completed projects have been sealed with the driving of golden spikes and frenzied
media coverage. The significance of railways could become more salient when their
service is withdrawn or suspended. Yet, railways do not lend themselves easily to
personal (versus collective) mobility: witness the failure of the Aramis Project: conceived
by the French Government in the 1980s, it was meant to combine the efficiency of a
subway train with the flexibility of the private automobile, but proved too complex and
expensive to implement (Latour, 1996). Nor is one to assume that trains are an inherently
good thing. Contrary to what most civil engineers might think (eg Sassi Perino and
Faraggiana, 2004: 12), the forces that oppose railways (and other infrastructural
creations) are not only to be found in the realm of physics. Scale concerns are amongst
the key paramount considerations.

A train is a quintessential creation of the mainland expanse it is intended to subjugate. It
is an effective and economic vehicle for the purpose of transporting heavy or bulky
cargos and many passengers across large distances, and preferably with no or low gradient. Rostow (1960) believed in the crucial development role of trains in supplying a faster, cheaper and more dependable transport service. Especially in developing countries, where the use of private transportation is still restricted to a narrow segment of the population; and where good roads, or even just roads, may be wishful thinking, train services are oversubscribed. In industrialised economies, where affluence has led to traffic gridlock, trains again afford opportunities for hassle-free transportation, especially to/from urban centres. And, in an age where environmental concerns are rapidly pushing their way up the political agenda, trains are increasingly seen as a form of transportation that merits support due to their lower per capita carbon “footprint” – and all the more so when operating on clean(er) (such as green) technologies (eg Kieran, 2007).

While all this may be well and good, islands are not necessarily geared in the same way. For most islands, their obviously defined geography has meant that the sea is the obvious medium of transportation. Island societies are primarily maritime societies, and they would at times find it easier to connect and trade with cultures on other coasts and islands than with communities that may exist on their same mainland. Huge island masses like Australia, Iceland and Greenland, with their coastal communities and unforgiving hinterlands, would be best conceived as archipelagos connected by sea, certainly before the advent of the airplane or the construction of highways into their interior (eg Doumenge, 1998: 345). Evidence from the Caribbean suggests that mountains divide (even settlements on the same island) while the sea connects (even settlements on different islands) (Boomert, 2000; Bright, 2005). And so, historically, it is the boat, or the ferry, which ends up handling inter-island and island-mainland traffic and trade. Even today, while air transportation may be available, this may be too irregular and expensive to totally replace maritime travel and trade between islands, between islands and mainlands, or even within islands (eg CPMR, 2002).

**Tracking Island Railways**

Despite the above, island cultures have looked enviously at how trains were spurring the development of mainland societies. Having long nurtured wishes to share in the spoils of progress, enthralled by the obligation to industrialise, and anxious to usurp the tyranny of insularity and peripherality, island elites around the world, especially in the 19th Century, have argued that developing a railway was simply an essential proposition for their economic development and prosperity. They have lobbied for importing the technology – lock, stock and engine – to their own territories, expecting developmental ‘take offs’ similar to their mainland references. And they have often found politicians who were eager to listen. Moreover, island railways on: Java (land area 130,000 km²; population 120 million), Japan (land area 374,750 km²; population 126 million), and Great Britain (land area 241,590 km²; population 61 million) are large, well patronised and worked with advanced equipment. Japan’s Bullet Trains (Shinkansen), like France’s TGVs (ttes grand vitesse), run at speeds of 300 km per hour or more. Britain, with its available capital, technical expertise and a sympathetic government, pioneered the construction of railways with the opening of the Stockton and Darlington Railway in 1825 and the Liverpool and Manchester Railway in 1830. By 1850, Britain already had over 10,400 km of rail track.

Yet, the above seem to be the exceptions, rather than the rule. Even on the world’s largest and/or most populated islands, railway services can be restricted (in terms of
Baldacchino – Railways as Island Antitheses

territory and/or focus of carriage). In most other cases – Bermuda, Cyprus, Gotland, Jamaica, Malta, Mauritius, Newfoundland, Prince Edward Island, Sulawesi - the story is an all-too-often repeated one: that of initial optimism, a cycle of eroded patronage and mounting financial losses, and eventual closure due to bankruptcy (eg Bonnici and Cassar, 1992; Krijthe, 1983; Lingard, 2000; Raine, 1992; Rollinson, 2001; Satchel and Sampson, 2003; Turner, 1979; Weale and Baglole, 1973). Where the railway - and/or its tracks and former trail - remain, the infrastructure no longer addresses industrial development but supports tourism, recreation, catering, hospitality, public administration and other service industries. The story is only different in:

(a) exceptionally strong economies where the service is maintained at huge expense in the interest of nation building and commodity transportation (like Australia and Ireland);

(b) densely populated islands where private automobile use is low, making the railway the default mass public transit option (like Cuba);

(c) sub-national island jurisdictions that can rely upon injections of capital investment (or ‘bail-outs’) from a larger, metropolitan state (like Réunion and France); and

(d) those island territories whose projected market value of locally mined mineral resources suggests that investing in a railway is now worthwhile.

(NB This article does not consider rail-ferry lines that serve to connect island and mainland rail networks [like Hainan Island - mainland China; Sicily – mainland Italy; Singapore-Malaysia; or the ‘Chunnel’ services linking Britain to continental Europe]: here, the implications for survival are markedly different and more complex.)

Reviewing Viability

Changes in the nature and containerisation of freight, in the distribution of commuter populations, and in the technology of transportation proper, have had their impact on railroads, be they on islands or on mainlands. Various continental railway systems have been pared down, but not closed down. In contrast, the viability of railways on island jurisdictions appears limited to a few locations where there are large populations in high density locations (Borneo, Great Britain, Madagascar, Japan, Java; with current plans for railways across such other islands as Mindanao, Sulawesi and Sumatra). Even very high population densities on small islands (such as Bermuda, Guernsey or Malta) have not been enough to assure the survival of the railway. Of course, while most island territories may have entertained railway systems, not many got to the point of actually building them: the relatively massive capital investments required up front made short shrift of their hopes. However, for those islands that have inaugurated railway lines, most have found it impossible to support the operational costs of a system intended mainly for the transport of large and regular volumes of passengers and/or freight. In such cases, the railway has been severely cut down to manageable, very short sections whose main purpose is to provide pleasure rides to visitors and tourists. Elsewhere, the railway system has been completely dismantled. Here, the only material residue of the railway’s
history and operations is typically parts of the former track (transformed into a walking, hiking or cycling trail), the occasional museum (housing locomotives as ‘looked at’ historical artifacts), or restaurants or public gardens (being refurbished railway stations).

Railway Political Economy

A more serious commentary must address the relationship of the railway as a modernising technology to the effects on the convergence of public policy and economic development. Convergence theorists (starting with Kerr et al., 1960) would argue that railways constitute technologies that radically transform societies: by revolutionising the foundational concepts of time and space (making distances shorter and getting people closer), by fostering the development of a unionised and skilled proletarian workforce; and also because they are premised on a centralised model of growth that requires large amounts of capital, creating “common characteristics and imperatives” which in turn facilitate an inexorable economic and political convergence (ibid). Indeed, practically all railways have gone through consolidation, and many island railways have survived, or came into being, as monopolies. Island elites, and subsequently the governments or foreign corporations who bailed them out, found themselves responsible for a massive infrastructure, and thus powerful economic players in their own right. However, the manner in which economic policy is actuated remains strongly driven by the political culture of the respective jurisdiction, and cannot be seen as a mere function of technological determinism: for example, the railway systems that emerged in the United States, France and Britain were, and continue to be, driven by their respective ideologies: market forces overseen by a federal government in the US; a powerful central state in France; and elite individuals in Britain (Dobbin, 1994; Szostak, 1991).

Such ideological and structural determinants have not prevented the transformation of island railroads however, even where these have not been economically successful. Rail companies, often already nationalised, have sought to stabilise their revenues by opposing the development of extensive road networks; or by buying into bus and road companies to diversify their portfolio (and somehow manage or control the competition). Moreover, transforming former rail sites to trails (in the face of opposition from the land owners whose property had been expropriated in the first place) has been a welcome tourism, cycling and recreational boon since the rails would have cut across most of the well-traveled areas of each respective island, and usually with only modest angles of inclination. The graduation to heritage status and function is straightforward.

Coping with Dysfunctionality

Under the influence of... stories of the new steam locomotives that had become the rage in Europe, the Commandant, increasingly frustrated in his desire to be seen as a man of destiny had... decreed that a great train station was to be built.

It was a huge undertaking... All this in the face of those who quietly expressed the timid doubt that a train station on an island in the middle of a wilderness far off the coast of a nowhere land so blighted it existed only as a gaol was unlikely ever to be either the terminus or point of departure for any traveler. (Flanagan, 2001: 165-166)
Sarah Island, Tasmania’s oldest convict settlement, was established in 1821, and today forms part of the UNESCO recognised Tasmanian wilderness World Heritage Site (PWST, 2005). No railway has ever been built on Sarah Island: the very idea of a railway on an island so remote, so peripheral, and itself so small (less than 1 km long and less than 0.5 km wide) is intended by the author to demonstrate the hopeless eccentricity of the whole project which, in Flanagan’s admirable work of part-fact, part-fiction – is indeed completed as a hallmark of sheer monumental folly.

The practice of treating islands as microcosms, even laboratories, of much larger mainlands has a long pedigree (see Baldacchino, 2007). Yet, mainland inspired and induced infrastructures need not be the best form of investment on islands, especially smaller ones. The history of industrial capitalism provides ample evidence of this form of technological determinism, and its limitations but is it enough to sway ambitious developers and politicians, keen to be seen to patronise island peripheries (and their voters) with mega-projects? Apparently not. In the case of both Newfoundland and Prince Edward Island, political and business elites looked hopefully at railways as the infrastructure that would propel them to industrial modernity, just as it had done to the rest of the North American continent. Instead, the technology and its associated consequences (such as the ensuing fiscal burden and the emerging industrial class of railroaders) inadvertently contributed to, if not catalysed, the erosion of both islands’ autonomy and the centripetal movement of the islands’ jurisdictional status towards membership of the Canadian federation.

It appears today that the recognition of train obsolescence on islands and their closure is an ex-post coming-to-terms with the reality of islands as mainly service-driven economies. A new island “mindscape” (eg Ronström, 2003: 5) has been creeping in, one where trains - if they are to feature at all - are reinvented and repackaged as quaint tourism products; historicised as objects out of time or from a romanticised past; their capital legacy – such as locomotives, carriages and stations - conserved, subjected to museumification, and thus given a new life, meaning and function (eg Macdonald, 1996; Prösler, 1996). They are also exoticised as charming and old-fashioned (literally). In this repositioned mode, they therefore appeal to a different type of consumption and a different type of consumer. Thus, as a web-site dedicated to the Corsican railway declares:

*Every summer, 300,000 tourists pay homage to the Corsican railway. It provides the most convenient way to travel on the island. The tourists gather around as if they are heading for a show. They take the train for the fun and emotion that it provides. For the gripping contrasts of viewscapes. For the long view... The Corsican railway is like a long movie that traces the history of the island: ethnology, geology, architecture. (Chemins de Fer Corse, 2007, my translation)*

In a dramatic reversal of meanings, the obvious dysfunctionality of railways in the island context becomes the key source of their appeal, with clients paying for the exotic experience of the ride, rather than the act of transportation from one location to another (that would be the case in more ‘normal’ surroundings). Moreover, when miniaturised (in terms of gauge, scope or actual size), trains even become stronger metaphors for interiority (Stewart, 1993), fuelling that sense of management and control via a totalising consumption and an obsession to claim that also attracts visitors to islands (eg Redfield,
Baldacchino – Railways as Island Antitheses

2000: 12; Baldacchino, 2007: 3-4). Indeed, both the Alderney train and the Michelines in Madagascar can be chartered.

These are, it seems, the ways to keep the railways ‘on track’ in most island territories. They otherwise represent a particular industrial and continental logic, if not also a particular ‘time discipline’ (eg Thompson, 1967) that jars with the reality of island life. Older railways easily join horse drawn carriages, vintage cars, sailing ships, and World War II fighter planes as exemplars of redundant technologies, prized for their appearance and their link to a distant and nostalgic past (eg Lowenthal, 1986), rather than their substance and functionality. Moreover, (where they still exist) island railways offer short fun rides; and (where they don’t any more) they offer nature trails and industrial archeology; in both cases, this is done mainly with a view to connect with the hedonistic pursuits of tourists, and not the interests of locals.

And so, railways set out to transform islands; but, in the outcome, islands are perhaps as likely to transform railways too.

Looking Ahead

Finally, would the analytic framework developed in this article apply just as well to other modern transportation technologies? How do commercial airports, ferry services, cruise ships and even automobiles fare on islands? There are usage constraints that apply to all these modes of transportation, though at obviously different levels and intensities of use or scale. But, in spite of gridlock on their streets, island jurisdictions may today be experiencing pressures to expand their road network; such pressures could prove very similar to those that lead to the setting up of railways, now as much as in the past. Perhaps the same could be said for the pressure to set up or expand ferry services, airports, cruise ship terminals etc. Are such infrastructures, professed harbingers of social and economic progress, or even if purportedly just providers of public services, likely to experience a similar rise and fall in their economic fortunes? Is there a ‘cut off’ point below which such infrastructure should not be provided, on the basis of some economic logic? Could the investment become counter-productive, eroding or jeopardising the political capacity of the island territory in question? And might not these investments in future end up themselves as quaint, historic artifacts? Of course, given the transport paradigm we are living in today, it may be difficult to conceive of an island without commercial airports, without ferry services, without cruise ship visitations, even without automobiles. Yet populated islands without such transport infrastructure do exist, though not too many². Perhaps an island seeking to become modern without a proper rail service would have been as inconceivable in the 19th Century as is an island without cars in the 21st. It is nevertheless important to continue to remind policy makers that the construction or improvement of transport infrastructure is no panacea: it does not in itself guarantee economic or social development. Economic prosperity, as Fogel (1964: 237) reminds us, is perhaps better understood as knowledge applied to the promotion of multiple innovations in a broad range of domains, rather than the product of any single kind of technology.

Islanders have, after all, at times been suspicious and quite outspoken critics of major infrastructural projects, to the exasperation of would-be financiers and the consternation of politicians. In Sweden, for instance, the islanders of Fårö (in 1996) and of Öckerö (in 2001, and again in 2005) voted against bridges that would have connected their islands.
to much larger places (Kållgård, 2007: 258-259); Sitka islanders (in Alaska, USA) voted against constructing wharves which would have allowed cruise ships to berth (Klein, 2002); and the airport at St Barthélemy (in the French Caribbean) has one very short runway, allowing the islanders there to carve a niche tourism market precisely by allowing access only to the few and rich (Baldacchino, 2006). If islanders are told that “bigger is better”, it is only fair to expect them to retort: “better for whom?”

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Endnotes:

1 For example, a study done for the Baffinland Iron Mines Corporation suggests that within 6-7 years, railways running along a 93-km track would transport iron ore from Baffinland’s Mary River deposit to a deep-sea port at Milne Inlet on North Baffin (Unattributed, 2006: online).

2 Islands without any cars today would include: La Digue (Seychelles); Mackimac (USA); Tristan da Cunha (UK Overseas Territory); Hiddensee (Germany); Sark (Channel Islands), Cheung Chau and Lama (Hong Kong, China). Bermuda spent almost 40 years automobile-free (Pomeroy, 1993).

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