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# Planned derailment for new urban futures? An actant network analysis of the "great [light] rail debate" in Newcastle, Australia

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# Planned derailment for new urban futures? An actant network analysis of the "great [light] rail debate" in Newcastle, Australia

## Abstract

With urban and economic restructuring, facilitating urban regeneration for rundown post-industrial cities has become a central urban planning policy objective in Western cities since the late twentieth century, leaving some centres in prolonged social and economic decline. This chapter explores one example of planning policies seeking to regenerate an urban centre. Our focus is Newcastle, approximately 160km (100 miles) north of Sydney, Australia. Newcastle has a long history as an industrial city, dominated by manufacturing and coal-mining in the surrounding Hunter Valley. The port of Newcastle remains the world's largest coal export port. In 1999, BHP closed the Newcastle Steel Mill, triggering industrial restructuring and catalysing significant urban transformation. Despite a flurry of planning activity, regeneration of the central business district (CBD), waterfront and brownfield industrial sites has been slow. The most recent round of planning for the Newcastle CBD saw the release of the Newcastle Urban Renewal Strategy in 2012 (2012 NURS) (DPI, 2012) and its revision in 2014 (2014 NURS) (DPE, 2014). Arriving two years after the original, the 2014 NURS presents a significantly different urban future, premised on ceasing the heavy rail services into Newcastle CBD, to be replaced by light rail (among other developments). We explore these strategies aided by the Actor Network Theory (ANT) concept of translation. Planning documents convene social actors and define the relationship between material and non-material (physical) actors (Rydin, 2013) creating new meanings that build from both the social and physical characteristics of places (Bylund, 2013). They work as intermediaries and mediators that circulate to create and maintain urban change networks (Rydin, 2013). In adopting an ANT framework, our approach is 'strategic and illustrative, rather than comprehensive' (Jacobs et al., 2007: 609). The decision to truncate the heavy rail line disrupted the 2012 NURS, which sought 'to recommend an integrated package of initiatives aimed at developing a solid basis for the long term successful renewal of the city centre' (DPI, 2012: xvi). In exploring the central role of rail infrastructure in Newcastle planning, we adopt a socio-technical perspective that recognizes plans and transport systems as combinations of technologies, institutional arrangements, market processes, legislative frameworks, human agents and non-human actants. We trace the way planning in Newcastle has centred on the extent to which alternative socio-technical networks - different rail systems - can become stable, resist challenge and seek to define the future city. The first section of this chapter reviews ANT as a theoretical approach to planning and, drawing on this approach, the second section explores the planning process in Newcastle, focusing on the proposed replacement of the existing heavy rail system with a new light rail system.

## Keywords

debate, rail, light, great, australia, analysis, newcastle, network, actant, futures, urban, derailment, planned

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## **Chapter 3. Planned Derailment for New Urban Futures? An Actant Network Analysis of the “great [light] rail debate” in Newcastle, Australia**

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### **Introduction**

Facilitating the urban regeneration of run-down post-industrial cities has become one of the central objectives of urban planning policy in western cities since the late 20<sup>th</sup> Century as urban and economic systems have restructured, leaving some centres in a period of prolonged social and economic decline. In this chapter we explore one example of planning policies which seek to regenerate an urban centre. Our focus is Newcastle – located approximately 160kms (100 miles) north of Sydney, Australia. Newcastle has a long history as an industrial city, with 20<sup>th</sup> century economic activity dominated by manufacturing and coal mining in the surrounding Hunter Valley. The Port of Newcastle remains the world’s largest coal export port. In 1999 BHP closed the Newcastle Steel Mill triggering industrial restructuring and acting as a catalyst for significant urban transformation. Despite a flurry of planning activity, regeneration of the CBD, waterfront and brownfield industrial sites has been slow. The most recent round of planning for the Newcastle CBD came with the release of the *Newcastle Urban Renewal Strategy* in 2012 (*2012 NURS*) (DPI, 2012) and its revision in 2014 (*2014 NURS*) (DPE, 2014). Released just two years after the original, the *2014 NURS* presents a significantly different urban future premised on the cessation<sup>1</sup> of the heavy rail services into Newcastle CBD and its replacement by light rail (among other developments).

We explore these strategies through the lens of the Actant Network Theory (ANT) concept of translation. Planning documents draw together social actors and define the relationship between material and non-material (physical) actors (Rydin, 2013) becoming translations that join the social and physical characteristics of places (Bylund, 2013). They work as intermediaries and mediators that circulate to create and maintain networks of urban change (Rydin, 2013). In adopting an ANT framework, our approach is “strategic and illustrative, rather than comprehensive” (Jacobs et al., 2007, p. 609). The decision to truncate the heavy

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<sup>1</sup> Those supporting the termination of the train line outside the CBD tend to describe this change as the *truncation* of the rail line, those opposed tend to describe the change as the *removal* of rail services.

rail line disrupted the 2012 *NURS* which sought “to recommend an integrated package of initiatives aimed at developing a solid basis for the long term successful renewal of the city centre” (DPI, 2012, p. xvi). In exploring the central role of rail infrastructure to planning in Newcastle, we adopt a socio-technical perspective which recognises plans and transport systems as combinations of technologies, institutional arrangements, market processes, legislative frameworks, human agents and non-human actants. We trace the way planning in Newcastle has centred on the extent to which alternative socio-technical networks—different rail systems—can become stable, resist challenge and seek to define the future city.

This chapter is divided into two main sections. The first provides an overview of ANT as a theoretical approach to planning and, drawing on this theoretical approach, the second section explores the planning process in Newcastle, focusing on the proposed replacement of the existing heavy rail system with a new light rail system.

### **Actor Network Theory and planning**

It is no surprise that ANT has been adopted by planning scholars given that, as a discipline and professional practice, planning lies at the nexus of physical/material things and the social (Rydin and Tate 2015). As Beauregard (2012, p. 182) notes, the problems planners seek to address are “inseparable from physical objects”. Urban regeneration as a planning ideal and development logic rests on addressing perceived problems with both the physical/material (e.g. the rundown buildings, inadequate transport) and the social (e.g. population decline, unemployment). In recognizing the influence of both the physical/material and the social, ANT offers a theoretical approach for better understanding the complex, fluid and multidimensional nature of the city.

ANT conceives networks as a metaphor for the associations of heterogeneous elements that constitute reality, where connections between actors and objects are changeable (Tait, 2002; Tait and Jenson, 2007). For Rydin (2013), ANT offers planning a useful lens for examining periods of change, controversy and conflict. Rather than accepting the apparent stability of plans or the ease with which new translations can be realized, we are required to explore the ways in which plans are formed and positioned as stable artefacts (Tait, 2002). Of course, some plans do not become stable artefacts and ANT is equally useful for exploring situations where plans and their underlying logics are contested.

ANT-oriented analysis of planning has the potential to dissolve hierarchical understandings of relationships and position the material/non-human as actants with the capacity to define network configurations (Boelens, 2010). ANT focuses on the ways in which networks are made stable, albeit that this stability may be temporary as network configurations fracture and are abandoned (Tait, 2002). This reflects ANT’s central premise of symmetry; the recognition

of the non-human/inanimate/material/technical as well as the human/social in the construction and maintenance of networks (Latour, 2005; Rydin, 2010; 2014; Farias, 2010). The focus is on recognizing and exploring those hybrid assemblages of related human and non-human actors which facilitate agency as the emergent effect of relationships between actors (Rydin, 2014). The planner, a key actor, is not a coherent, independent social being, but an actor operating within a relational space with other actors and objects (Gabriel and Jacobs, 2008). Following Rydin (2010, p.267), ANT allows planning policy, practice and scholarship to recognize the complexity of actant interactions which produce ‘outcomes which are a mix of the desired and the un-desired, the intended and the unintended’.

Plans come to represent networks of diverse and competing actants, each actively pursuing its own ideal urban environment as some actants attempt to gain control over network configurations. As actants enrol others to produce a reality conducive to their own ends, development planning becomes a potential arena of struggle over strategy (M<sup>c</sup>Guirk, 2000). It becomes a site of translation in which *problematization*, *interessement*, *enrollment* and *mobilization* occur (Rydin and Tate 2015). Translation, of course, cannot be taken for granted as the strategies used and the interpretations expressed depend upon the particular circumstances in which they develop and as actors potentially transform objects and arrangements (Callon, 1986a; 1986b; Latour, 2005; Bryson et al., 2009). Translation is the process that “induces two mediators into coexisting” (Latour, 2005, p. 108). As a product of a co-existence translation is, for Latour (1997, cited in Boelens 2010), the process whereby actors operate by themselves, but in line with the desires of a dominant actor. Through the process of translation some actors are able to exert influence over the network. The power of the translator is that it speaks on behalf of these actants, yet does not necessarily need to speak in a fashion, or pursue goals, of its constituents. However, the relational nature of actant networks and the capacity for associations to break down means that unpredictability and dissent is always possible as actants operate in ways unforeseen by translators. In our exploration of planning in Newcastle CBD, we explore contested attempts at translation, particularly the use of modelling and imagery by both planners and those opposed to the removal of the heavy rail line.

Enrolling is the process by which “actants constitute other actants in their own agency involving them in network relations on specific terms” (Rydin, 2013, p. 26). All actants draw things together, albeit in particular ways and styles (Law, 2000a). Central to the process of enrolling and the creation of heterogeneous networks is the notion of an intermediary. According to Callon (1991, p.134) an intermediary is ‘anything passing between actors which defines the relationship between them’. He identifies four primary types of intermediaries: literary inscriptions (books, articles, patents, etc.); technical artefacts (machines and other

nonhuman artefacts); human beings (in particular their skills and knowledge) and money (as an institutional means of exchange). Thus, actants define one another in interaction, through the intermediaries they put into circulation (Callon, 1991). The difference between actants and intermediaries is the capacity to act as an author, 'an [actant] is an intermediary that puts other intermediaries into circulation' (Callon, 1991, p.141). For Tait (2002), planning texts operate as network intermediaries able to shape networks by defining certain entities, how they should link to others and describing future actions and relations. In this chapter we trace some of the material and technical intermediaries enrolled to define urban regeneration in Newcastle, with an emphasis on planning models, imagery/photographs and (transport) data. Three elements are central to the process of enrolment and translation; immutable mobiles, black boxes and mutability.

First, immutable mobiles are those actants within a network that facilitate its expansion. They are considered immutable as their network identity is fixed, since their elements do not change as the relations between actants alter. Research has highlighted how immutable mobiles (texts) are vital to long distance control, being durable enough to retain their shape as they travel (Callon et al., 1986; Bylund, 2013). They have also been increasingly recognized as the objects that allow knowledge to be used well beyond its place of origin (Latham, 2002) and that work to standardize practice and to translate planning and development processes (Holifield, 2009).

Second, black boxes are those relations that no longer need to be considered as their constitutive facts and artefacts have achieved temporary stability (Hinchliffe, 1996). For planners, black boxes of knowledge and technology allow planning to occur at a distance (Bylund, 2013). By successfully creating a black box, the translation is insulated from questioning, effectively removing the threat of challenge and instability (Jacobs et al., 2007). Urban planning abounds with examples of black boxes (e.g. demographic projections), in which the complex interactions between urban actants are rendered unproblematic and unchallengeable. Stabilization renders internal processes invisible, with relations and conflicts hidden behind a coherent actor-network identity. In achieving stability, it is difficult to unravel the complex associations which grant actors agency and the authority to translate for a network.

Third, Bylund (2013) argues that there needs to be a level of mutability. Networks are fluid in that the actors, forms and materials can change to reflect and influence the specific circumstances of different places/networks (Karrholm, 2013). So it is essential that some actants are open to the possibilities of influence from other actors. It is here where mediators are important. Mediators work to transform, distort and modify associations and meanings, thereby shaping network configurations (Latour, 2005; Rydin, 2014). For Latour (2005) the

uncertainty around whether entities are acting as intermediaries or mediators is central to any ANT analysis. Recognising actants as mediators rather than passive intermediaries allows networks to develop in unexpected ways (Cowan et al., 2009) and also opens the door to recognizing the multiple sites of translation or “flows of translations” that enable network change (Latour, 2005). The artefacts which are produced as part of the planning process (plans, studies, designs, maps, diagrams) need to be positioned as mediators influencing network change (Bryson et al., 2009). Thus, for actant networks/intermediaries to gain a level of stability, mediators must be operating in ways which seek to maintain credibility and maintain network power.

The final stage of the translation process, mobilization is the act of actually circulating network agency. Mobilization is the process by which some actors are able to start speaking for others. By this stage the actor-network has become stable and coordinated, which allows concepts to move across network space (Tait and Jenson, 2007). The mobilization of network configurations works to weaken alternative network possibilities (Doak & Karadimitriou, 2007). Mobilization is the process by which network translators represent networks without fear that they might be betrayed by others (Callon, 1986b). The network is sufficiently stable that a coherent translation might be put into circulation. For Allen (2003) the mobilization of artefacts, such as planning documents, becomes a means by which central network actors (administrators, politicians or scientists) impose order on distant others.

The remainder of the chapter explores the process of planning translation, centring the role of alternative socio-technical networks of transportation. Similar to Rydin (2013), methodologically this chapter is centred on a close reading of relevant planning documents, media coverage, promotional material and public planning submissions. This close reading of documents is supplemented by a series of key informant interviews, which help us identify and follow key associations, actants and intermediaries as they are related to each other (Ruming, 2009).

### **Conflicting Problematisations: The “great [light] rail debate”<sup>2</sup>**

The inner Newcastle heavy rail line, first opened in 1831, has been the subject of debate from at least the 1950s (Kirkwood, 2012). By the late 1990s removing the railway was high on the planning agenda, with local Mayors and the state government calling for the truncation of the railway and development of a transport interchange outside the CBD. Nevertheless, support for the truncation/removal of the railway has been far from universal, with a local opposition

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<sup>2</sup> The planning of the rail line in Newcastle has proceeded on the basis that the rail line is a piece of public infrastructure owned and controlled by the state government. Yet a Native Title claim over the land under the rail line, lodged for the Awabakal and Worimi people by the Awabakal Land Council in 2014, made visible the continuing Indigenous connection to country in the city of Newcastle.

group—Save Our Rail—being established in 1992 and playing a central role in challenging any proposed removal of the heavy rail (Kirkwood, 2012).

The most recent period of debate began in 2008 when a large developer and the Hunter Development Corporation<sup>3</sup> called for the railway line to be truncated and replaced by a light rail system, joined by a transport interchange to the east of the current CBD in the suburb of Wickham. Wickham was identified as the site of the future CBD in the *2012 NURS*. After almost 84 years of Labor party rule<sup>4</sup>, the 2011 state election saw the election of a conservative (Liberal) member to the seat of Newcastle who campaigned on a pledge to facilitate the revitalization of Newcastle, including addressing the role of the rail line in the city. In his maiden speech to Parliament he claimed, ‘I am committed to finding a solution to the rail line issue, which is dividing our city, both literally and metaphorically—and has done so for decades through inaction’ (Owen, 2011 p. 1080). His stance was supported by the independent Lord Mayor (and prominent regional property developer), newly elected in 2012. The new political make-up of Newcastle was viewed by many as a mandate for truncating the rail line.

In December 2012 the conservative NSW Coalition government announced that the Newcastle line would be truncated at Wickham, with a new interchange to be constructed to join the existing heavy rail with a new light rail system (Hazzard, 2012). In May 2014, the NSW government announced that Newcastle would receive \$340m to fund CBD revitalization, from the proceeds from its award of a lucrative 98-year lease for Newcastle Port valued at AU\$1.75bn. Crucially, this commitment to revitalization now included a light rail service to replace heavy rail, from Wickham to the CBD: a total of 3.5kms. Train services to the Newcastle CBD ceased on Boxing Day 2014, with services replaced by buses until the completion of the light rail system. Supporters aligned themselves with the NSW Minister’s pronouncement that:

*Light rail for Newcastle is a transformative transport project which will help to change the way that Newcastle functions, and contribute to the overall goal of the urban revitalisation strategy – to reinvent a modern city, and a diverse, vibrant and attractive place for business, visitors and locals. (Ministers’ Message, Hunter Region Transport Plan, 2)*

As the first stage of developing a planning translation, supporters adopted a particular form of *problematization*, where the existing urban form of Newcastle was positioned as a barrier to

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<sup>3</sup> A state-owned agency responsible for developing parts of Newcastle and facilitating private development in the region.

<sup>4</sup> As a single member electorate, the seat of Newcastle had been held by Labor for 84 years, except for the period between 1988-91 when it was held by an Independent.

development, an issue which required a (technical planning, development and transport) solution. In particular, the heavy rail was problematized as something which inhibited urban regeneration as it acted as a barrier (physically and metaphorically) between the CBD and the harbour foreshore. Local planners positioned the change in rail infrastructure as an opportunity to reduce the level of car dependence in the city and increase the rates of public transport usage:

*...the light rail option has potential to significantly improve things if it's done properly.* (Newcastle City Council planner interview)

There was support for the removal of the railway by many local businesses, developers and their representatives, politicians, bureaucrats and government employees and some members of the community<sup>5</sup>. In strengthening the *problematization* of heavy rail as a barrier to regeneration, the coming together of a broad set of actors supporting the removal of heavy rail represent *interessement*, the second stage of translation. A process of coalition building between interested actors is apparent as actors are brought into association with each other and certain relationships strengthened (Tait and Jenson, 2007; Rydin and Tate, 2015). This process is presented in Figure 1, a flyer for an October 2013 business lunch debating the future of rail infrastructure in Newcastle. In addition to presenting urban alternatives which remove the problematic heavy rail via images of future Newcastle, the flyer works to identify actors supporting a translation which truncates the heavy rail. Central actors include: industry advocates (including lunch hosts [Property Council of Australia]); state and local politicians (as invited speakers); state planning, transport and infrastructure agencies (as invited speakers [Newcastle CBD Renewal Taskforce] and sponsors [Urban Growth NSW]) and expert speakers (keynote speaker and moderator) used to support a particular urban vision.

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<sup>5</sup> Support for truncation of the railway line was by no means universal. A number of businesses in the CBD and the Labor and Greens members of Newcastle City Council, including a councillor later to be elected the state member for the seat of Newcastle, opposed truncation/ removal. Since the announcement of the decision, the letters and comments pages of the *Newcastle Herald* have been filled with debates between those who support and oppose the change from heavy to light rail. Despite repeated assurances from the NSW government, many Newcastle residents remain sceptical that light rail will ever be built.

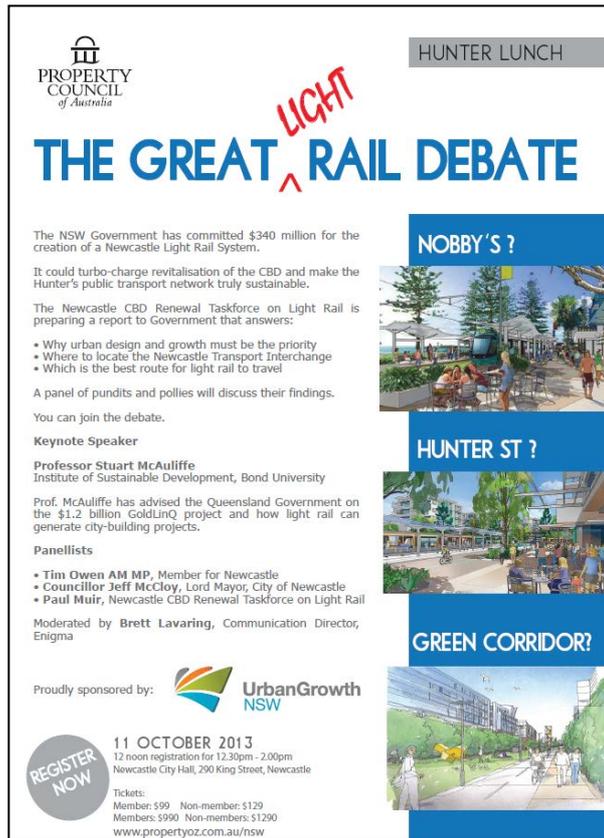


Figure 1: The great light rail debate: lunch flyer.

A vocal segment of the community, led by Save Our Rail, challenged the decision to replace the existing heavy rail infrastructure with light rail. For opponents, the NSW government’s decision to truncate the rail line and connect its replacement to the lease of the port was widely recognized as a “political” decision:

*This has just been dropped in front of Newcastle as an inducement to accept the sale of their major asset. (Save Our Rail Interview)*

While Save Our Rail have been the most prominent opponents to the removal of the heavy rail, there was a more general critique of the utility of light rail as an appropriate transport option for Newcastle. As the first stage of an alternative urban vision, this problematization critiqued light rail due to the cost associated with replacing one form of rail technology with another; issues of accessibility to the Hunter Valley, Sydney or Newcastle beaches<sup>6</sup> and the impact on local business:

<sup>6</sup> Proponents of the introduction of light rail were generally concerned with access to the harbour from the CBD. Opponents of the removal of the heavy rail were more often concerned with access to the CBD and Newcastle’s beaches. Newcastle is relatively unique in having high quality beaches in close proximity to the CBD. Access of young people from across the Hunter region to the beach became an important point of contention in debates around the light rail. At community consultation sessions transport planners were repeatedly asked about the possibilities for carrying beach equipment such as surf boards and boogie boards on the light rail.

*What's planned currently is a disaster for Newcastle and for the region. (Save Our Rail interview)*

This alternative problematization saw the coming together of a diverse set of actors including Save Our Rail, The Greens<sup>7</sup> political party, the NSW Labor party, some local businesses, alternative transport groups (Newcastle Cycleway movement), the local Indigenous community (Awabakal Land Council), local residents (protest meetings and comments to local media), some CBD businesses and public transport advocates.

Thus, if the first stage of the process of translation is problematization where problems are 'presented in a new light, to reconfigure or represent the situation at hand so that it has particular importance to particular actors' (Tait and Jenson, 2007, p. 112), then of the process of shaping a new planning translation Newcastle started on shaky foundations, with little consensus between (human) actors. In the face of conflicting problematizations of issues and solutions to the future of Newcastle, a series of alternative enrolments and mobilizations occurred in an attempt to generate a coherent planning translation. Given that the 2012 NURS made no assumption that light rail would be provided, the late 2012 decision to replace the heavy rail with light rail destabilized the planning actant network and prompted a new round of enrolment and mobilization. The 2012 NURS actant network was rendered unstable. The subsequent enrolment and mobilization strategies were replete with models of urban regeneration, data models, expert testimony, imagery and maps operative collectively as immutable mobiles, black boxes and mediators.

#### **A new planning translation: 2014 Newcastle Urban Regeneration Strategy (update)**

Planning for Newcastle was now required to translate urban realities with light rail. Planners and planning documents were put to work to enrol light rail as part of the revitalization of Newcastle. A new planning vision was expressed in the *Newcastle Urban Renewal and Transport Program* announced as part of the NSW Government's 2013-2014 budget. Led by Urban Growth NSW<sup>8</sup> the program was charged with managing two major regeneration components: 1) the cessation of rail services to the CBD and the development of the transport interchange and, 2) the provision of light rail. The remainder of the chapter explores three central points in the translation of alternative planning actant networks in Newcastle.

#### *Translation Point I: Models of urban form and data*

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<sup>7</sup> The Greens are a generally left-leaning political party in Australia. They currently hold several seats in the NSW lower and upper houses and on Newcastle City Council. Greens representatives in Newcastle have been vocal critics of the planning of regeneration in Newcastle, including the removal of the heavy rail.

<sup>8</sup> A government agency responsible for managing large-scale redevelopment projects across NSW.

A central objective of the *2014 NURS* was to present light rail as a superior transport technology capable, first, of underpinning a particular form of urban regeneration, and, second, as a means of changing transport patterns in Newcastle. In both cases, the capacity of the *2014 NURS* to present an alternative urban vision rested upon the capacity of planning networks to enrol models and data to claim authority over urban futures. Models of urban form and functions are not simply labels for describing and categorizing the world, but arrangements which exert influence on the ways actors interact (Karrholm, 2013). The adoption of a model of urban form renders visible the process of ‘problematization’ as outlined by Callon (1986b), in that there is a general consensus what the problem is and that the model adopted is one which addresses these perceived issues. Models come to represent black boxes which work to stabilize network assemblages. In the case of planning for Newcastle, two types of models were mobilized: *models of urban form* and *data models*.

The *model of urban form* enrolled and mobilized in planning documents was one of transit-oriented development. According to one Transport for NSW interviewee, Newcastle was positioned as ‘a great opportunity for transit-oriented development’:

The [2014] *Newcastle Urban Renewal Strategy* has a vision for revitalising Newcastle using light rail. Consistent with experiences in other parts of Australia and internationally, light rail has a proven record in assisting to revitalise cities. Light rail can travel safely through areas where people live and work, efficiently connecting neighbourhoods, key centres and retail areas (TfNSW, 2014a).

Transit-oriented development, as a model of urban form, was advanced in planning documents supporting the implementation of the light rail, such as the Wickham Interchange Review of Environmental Effect (TfNSW, 2014a), Ministerial media releases (Berejiklian, 2014), and community consultation documents (NSW Government, 2014). At the centre of this model was the proposition that the type of transport infrastructure was central to the success of urban regeneration. The model justifies the establishment of a new socio-material network (light rail). The technical capacities of light rail construction is mobilized as a solution to transportation challenges and as a catalyst for urban regeneration.

Informed by transport data and expert testimony, *data models* were enrolled and mobilized in an attempt to secure the *2014 NURS*. The use of modelling is common in urban planning, and planning Newcastle’s regeneration certainly involved ‘lots of modelling’ (TfNSW interview). Rydin (2013) identified models and their outputs as black boxes which hide the detail, complexity, assumptions and associations which generate a particular translation of reality – they lose any transparency. Facts, used to build models, are often contested by “experts” in the planning field (Holifield, 2009). Facts therefore come to represent ‘socio-technical’

configurations, where some claims of truth (facts) are more durable than others as a product of the network configurations (Gabriel and Jacobs, 2008). Yet, such models are not immutable and are prone to breakdown as they are translated into new network locations, where the models can be rejected outright or reconfigured into hybrid arrangements (Tait and Jenson, 2007). They operate as mediators changing network configurations. The authority of models rests upon the willingness of the rest of the network to recognize them as legitimate. Claims to legitimacy are often enacted through use of scientific studies and consultancy reports (Bylund, 2013).

In the case of Newcastle, data models were mobilized in an effort to present the realities of alternative socio-technical transport (actant) network. In particular, patronage data were mobilized to support and to challenge alternative socio-technical configurations. Through this process the train line in Newcastle ceases to be a material product linking the CBD with other parts of the Hunter region and Sydney and is repositioned as a data point around patronage (X passengers per day), shaped around an understanding of movement within or to the CBD. While the future is unknown, the capacity of the transport planning policy to claim some knowledge of use, based on internationally accepted models, is essential in mobilizing the urban regeneration vision of the *2014 NURS*. A series of consultancy firms<sup>9</sup> were hired to generate data associated with economic viability and patronage estimates (Harris, 2014). The studies work to render aspects of the network knowable by simplifying and quantifying diverse associations. They are technologies/techniques for black boxing parts of the complex actant network and contributing to its stabilization (Latour, 2005). ‘Expert’, ‘independent’ consultancy reports were mobilized by transport planners as part of their planning translation which included light rail. Low patronage numbers (as expressed via the models) were mobilized to justify the removal of heavy rail, positioned as a *commuting-based* transport infrastructure, for a different transport technology promoting *movement within* the CBD.

Modelling patronage on both the existing heavy rail and potential light rail was central to the planning translation, especially data generated by the Bureau of Transport Statistics<sup>10</sup> (Figure 2). The most recent NSW Bureau of Transport Statistics data state that the average barrier counts (in and out) for Newcastle Station were, on average, 2,300 per day in 2013<sup>11</sup>. These figures were enrolled and mobilized to support light rail:

*...actually the numbers are relatively small. We know that about... 5,500 entries and exits a day [into the CBD on the heavy rail line]. So you can reasonably halve [the*

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<sup>9</sup> GHD, Ernst and Young, URS and Parson Brinckerhoff

<sup>10</sup> A data collection, advice and analysis agency within Transport for NSW.

<sup>11</sup> <http://visual.bts.nsw.gov.au/barrier/> (accessed 4 April 2015)

barrier counts] to get the number of people you're talking about [who use the rail line]<sup>12</sup>. (TfNSW interview)

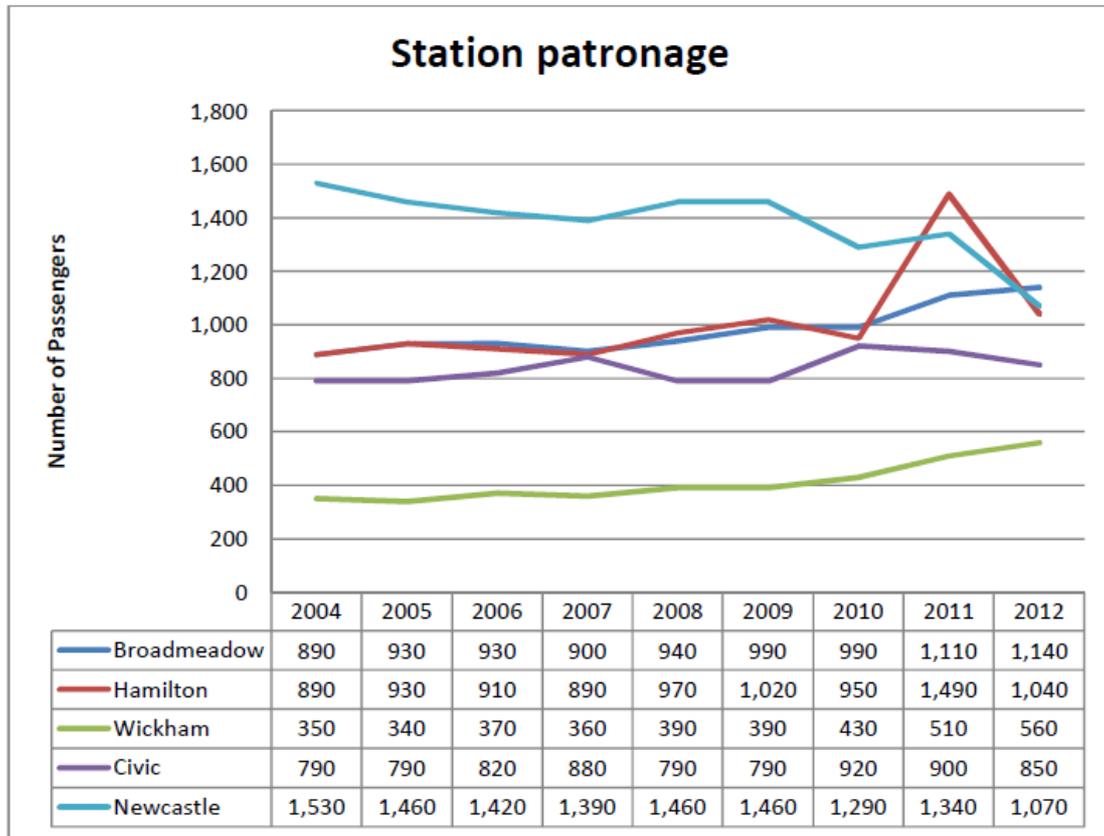


Figure 2: Station Patronage (Bureau of Transport Statistics data cited in GHD, 2014)

For transport planners the heavy rail system was failing, evidenced by small patronage numbers and the fact that only 6% of journeys to work in the CBD were completed via rail (GHD, 2014).

While facts are essential in consensus building around network assemblages, they are also habitually contested. As Latour (2004, p. 63) points out, it is impossible to establish ‘a common front of indubitable matters of fact that politicians could subsequently use to support their decisions’. Thus, it is not necessarily the data which are important but rather their role as mediators, able to deploy to circulate, secure and strengthen the translation (Latour, 2005). Such was the case around the data and expertise used to ‘black box’ patronage levels. Despite acting as black boxes which hide the complex associations responsible for generating patronage estimates, the very fact that such models were hidden opened them to challenge from actors seeking to destabilize the 2014 NURS.

In challenging the 2014 NURS opponents also enrolled and mobilized the agency of expert consultation, data, technical knowledge and the gravitas of University affiliation:

<sup>12</sup> The quotation refers to entries and exists on all stations between Wickham and Newcastle.

*[One consultancy report] acknowledged that if you cut that line, the patronage would drop dramatically. Now, every report has said the same thing... The Council at the time decided to get an independent transport and sustainability person and they got Professor [XXX] from Monash University... to examine the whole thing. He totally and absolutely rubbished it. (Save Our Rail interview)*

Moreover opponents argued that patronage numbers of the heavy rail will increase in the future as oil becomes more expensive and the density of the inner city population rises<sup>13</sup>. Removing the heavy rail line erases this possible future. However, just as the opponents challenge the patronage numbers mobilized by transport planners, so too do developers challenge patronage data mobilized by opponents:

*I would challenge the [claim that high] numbers get on a train at Maitland<sup>14</sup> and come all the way into Newcastle... No one's ever been able to give me numbers. (Hunter Development Corporation interview)*

Nonetheless, the authority of the 2014 NURS was weakened due its inability to successfully 'black-box' and render immutable the data and methodologies used to define patronage. At no point did the data around usage come to represent accepted fact, fully circulated through the network, as important parts of the modelling and planning process were withheld:

The state government is sitting on key reports for Newcastle's light rail project, including the business case, because it says the documents contain "commercially sensitive" information or are intended for cabinet. (Harris, 2014)

Following Latour (2005) the facts mobilized to support alternative planning visions for Newcastle (patronage data) are fabrications, which exist in many different shapes and at different stages of completion. The failure to release details of the models opened the 2014 NURS to critique, and contributed to a lack of trust in the models used, and the planning process more generally.

#### *Translation Point II: Alternative urban mobilities*

Compared to heavy rail, the 2014 NURS mobilized light rail as a fundamentally different form of urban transport technology, and one that was responsive to the geography of the city. It did this in two ways. First, light rail was identified as the transport technology best able to address the unique geography of the CBD; elongated over 2kms along a peninsula with no access from the north due to the harbour or east due to the Pacific Ocean. The current heavy

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<sup>13</sup> Opponents of the removal of the rail line also argued the heavy rail was vital for disadvantaged groups, including aged and disabled residents and sought to position these groups' transport needs as more important than the future transport needs of more advantaged CBD residents.

<sup>14</sup> Maitland is a large regional centre located in the Lower Hunter Valley, 34kms (21 miles) from Newcastle CBD.

rail corridor runs along the northern edge of the CBD and was identified by actors supporting truncation as a barrier between the CBD and the harbour foreshore:

*The geography's quite a challenge... but I think that's why we are taking out the rail line. ...it is a peninsula and a lot of it's taken up by some really ugly rail lines. So really opening up a bit more potential for the city I think is really important. (TfNSW interview)*

Second, light rail was positioned as a transport technology which fundamentally changed the type of mobility within the CBD. It was mobilized as a new technology which promoted fast, regular and easily accessible movement *within* the CBD. In doing so, it would enable regeneration by providing more stops (compared to the existing heavy rail) and link key “trip generator” sites (thereby strengthening the model of transit-oriented development). In contrast, the existing heavy rail was characterized as a “commuter” railway line and a means of facilitating movement *to* and *from* the CBD and, as such, was an inefficient transport technology because it failed to link key CBD sites, services were irregular and stops were too far apart. As these planners argued:

*the heavy rail was an old system, you needed to replicate a people-movement model that is more contemporary and suited to its environment and economics and thus the light rail. (Planning consultant interview)*

*We're removing essentially a commuter rail line... So light rail is about serving people who are using the city in a different way... so if you come off that heavy rail you've got a kilometre between stops at the moment. (TfNSW interview)*

In supporting the implementation of a short light rail system, planners enrolled and mobilized other locations with similar transport systems, claiming light rail was not unique to Newcastle and has been part of urban regeneration elsewhere—again reinforcing the transit-oriented development model as the international standard:

*So [the light rail is] going to be probably about 2.5 kilometres... There has been a lot of criticism around that. There are other examples internationally of quite short light rail. I think Seattle, Washington and Tacoma for example off the top of my head. (TfNSW interview)*

In contrast, and supporting their alternative problematization, a key point mobilised by opponents was the success of the heavy rail as a transport technology facilitating movement *to* and *from* the CBD. Heavy rail was mobilized as a vital service to those looking to come to the CBD and who do not have access to other transport (primarily private motor vehicles). In addition, other locations (origins and destinations) are enrolled and mobilized to support

maintaining the heavy rail. The alternative socio-technical network (light rail and interchange) was positioned as incapable of maintaining effective access to these destinations. The removal of the heavy rail, the development of a transport interchange and the need to change forms of transport (from heavy to light rail) was seen to severely disadvantage commuters, reflecting the support for the rail line from other Hunter councils:

*There are several [Hunter Valley] councils that have actually recently on their books, motions to oppose the truncation of the rail line.* (Save Our Rail interview)

Planners and opponents mobilized different forms of mobility (either movement *within* or movement *to* and *from*) and different beneficiaries of alternative transport technology (people within the CBD as opposed to those attempting to access the CBD). Planners attempted to stabilize the crucial role of transport within the CBD for regeneration, while shifting the focus away from how the CBD was connected to other places via the rail. Opponents on the other hand were more concerned with the role of the Newcastle CBD as a destination for Hunter residents who use the train, and potential visitors from elsewhere (especially Sydney) who might be attracted by a revitalized city centre.

### *Translation Point III: Imagery and Maps*

Maps and images work to materialize planning translations (Bylund, 2013). They are circulated to the broader public via planning documents themselves, but also via information sheets, public presentations and media coverage. Maps and images represent network complexity; they are mediators charged with presenting the socio-technical network. In the case of the Newcastle, the maps and images represent the new socio-technical network. While objects such as maps and images might be viewed as planning aspirations, they equally have an agency of their own as actors/intermediaries enrolled in urban networks to create a reality.

For state government planners, light rail promoted a high degree of urban permeability and movement. Urban mobility and permeability was most clearly articulated in a community information sheet, *Revitalising Newcastle: Light rail from Wickham to the Beach*<sup>15</sup>, released by the NSW Government to promote the 2014 NURS. Central to this document was the use of images which present urban form. The socio-technical realities of light rail are translated in two ways, both of which centre on the enrollment and mobilization of other sites of light rail.

First, as displayed in Figure 2, a series of international examples, from Dublin, Bordeaux and Seville, are utilized to present future transport in Newcastle. These images represent black-boxes to the degree that the complex assemblages of light rail in each of these cities are

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<sup>15</sup> The state government acknowledges the importance of beach access in the transport system in the title of this document. Generally though their focus is on how light rail will facilitate access *within* the CBD.

rendered invisible as they are mobilized as exemplars of global best practice. Despite the fact that the exact type of light rail system had not been finalised at the time of publication, these images present a particular type of urban form—the European higher density city. In mobilizing these images, planners are making a claim for the need for increased urban densities which, according to the enrolled model of urban form (transit-oriented development), are essential. Opponents draw on examples of other European cities (such as Berlin) to argue that heavy rail in the centre of a city is an essential part of the transport infrastructure of many European cities.

The use of images to translate urban possibilities is also apparent in Figure 3, included in an earlier promotional document released by Transport for NSW. This image is a mock-up of a future light rail system which also enrolls Wickham as the destination, and, by doing so, enrolls a future transport interchange at that location into the light rail actor network. The inclusion of the NSW Government logo on the light rail also works to enrol a level of commitment to the project from the state government who will be responsible for funding the implementation and ongoing running of the system.



Figure 2: International examples of light rail (NSW Government, 2014)



Figure 3: Representation of Newcastle light rail (Transport for NSW, 2014b)

Second, the international examples of light rail are enrolled to support an alternative urban mobility. At the centre of the 2014 NURS is the claim that light rail will increase access to the harbour foreshore:

*There's a bit of a misconception that we're going to be putting fences... There'll be fences along some of the platforms... But we're not talking about running fences the length of the light rail corridor. People will be able to move around more freely than they can now. (TfNSW interview)*

The 2014 NURS planning translation is one which promotes walking and cycling as an essential aspect of urban regeneration and vibrancy. Figure 4, also of the Seville light rail system, is deployed to emphasise the permeability of light rail, foregrounding an urban environment which occurs around this fluid infrastructure. Light rail is presented as a temporary barrier which allows for the easy movement of urban citizens. These images are mobilized to present a future Newcastle, which will be characterized by a connected CBD and harbour foreshore.



Figure 4: Light rail in Seville, Spain (NSW Government 2014)

Despite the efforts of planners to present light rail as permeable, temporary and promoting alternative forms of urban mobility, opponents have a different view. For opponents, the images of light rail are misleading:

*I think [supporters of the implementation of light rail] believe that some dinky little thing called a light rail is somehow more attractive and prettier and nicer to have around you... Pretty pictures have been put in the papers about these light rail carriages... They've been misled. (Save Our Rail interview)*

Opponents argue that the light rail will not have the aesthetic and mobility benefits claimed. They also attempted to present light rail as a dangerous urban infrastructure. However their

position is weakened by the inability to enrol and mobilize other actors, such as data on injuries or images suggesting the dangers of light rail.

### **Conclusion: Fragile Planning Actant Networks**

The planning for Newcastle remains in a state of flux. While heavy rail was halted at Wickham on Boxing Day 2014, the planning translation as presented by the *2014 NURS* is yet to fully materialize. Despite the mobilization of an urban vision centred on a new socio-technical network (light rail), planning for Newcastle has been destabilized as opponents have enrolled a broader set of actants in their opposition. A series of events/associations/assemblages have worked to render the *2014 NURS* planning vision as unstable and temporary.

First, in December 2014, Save Our Rail lodged a legal challenge in the NSW Supreme Court. The proceedings challenged the capacity of the NSW Government to remove heavy rail infrastructure without an Act of Parliament. The *Transport Administration Act 1988* states that if land is sold or tracks removed, parliamentary approval must be forthcoming. This did not occur in Newcastle. On Christmas Eve, the NSW Supreme Court approved an injunction on the removal of the heavy rail and ruled that approval was required by parliament. This issue is yet to be resolved and the permanent removal of the heavy rail has not begun.

Second, in October 2014 an Upper House Inquiry<sup>16</sup> was launched to explore claims of corruption in the planning process in Newcastle, centred on the role of the (then) Liberal State member and the (then) Independent (developer) Lord Mayor. At the centre of the Inquiry was the claim that the State rejected expert advice about the route of the light rail, instead opting for a more expensive option. A central theme of the Inquiry was community concern about the *2014 NURS*, in particular the approval of high-rise commercial and residential development in the CBD. In early March 2015, the Inquiry reported no evidence of corruption, but identified conflicts of interest for key actors involved in planning regeneration such as the Hunter Development Corporation, the Department of Planning and Urban Growth. In media reports the chair of the Inquiry claimed “the committee believes this conflict is unacceptable and detracts from public confidence in the planning system.” (Harris, 2015).

Third, the political makeup of Newcastle has changed markedly since late 2014. By-elections in October for the state seat of Newcastle and in November for the Newcastle Lord Mayor, resulted in victory for candidates from the Labor Party. Both campaigned on opposing the removal of the railway line and positioned their election as a mandate for retaining heavy rail. On 28 March a general state election was held. The new Labor state member retained his seat.

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<sup>16</sup> New South Wales has a Westminster system of government with a lower house (Legislative Assembly) and upper house (Legislative Council). As a house of review, the upper house has the authority to conduct Inquiries of government policies.

However, the Liberal Party retained government and remain determined to remove the heavy rail.

Finally, in January 2015 the local Awabakal Aboriginal Land Council lodged a land claim on the 2km heavy rail corridor, on behalf of the Worimi and Awabakal peoples claiming that the land was likely to contain items of cultural significance. The Awabakal Land Council expressed concerns at the lack of consultation and the potential destruction of Aboriginal artefacts. The claim was rejected by the state government, but the Awabakal Land Council may challenge this decision in the courts. In addition the Awabakal Land Council has also lodged a land claim on the entrance to Newcastle Harbour. If the claim is successful it will threaten the lease of the Newcastle Port, on which the funding of the light rail is premised.

While these developments have challenged the planning translation at Newcastle, the NSW Government and its planners remain committed to the urban vision outlined in the *2014 NURS*. To date, work on permanently removing the heavy rail or the construction of the transport interchange has yet to commence, and a timeline for the implementation of the light rail is yet to be fixed due to the ongoing court challenge. What is clear is that a future planning translation of Newcastle will be required, which better enrolls and mobilizes these diverse network associations/ actants.

The case of planning for urban regeneration and the implementation of light rail in Newcastle provides a useful example of the utility of Actant Network Theory as a framework for examining the plan-making and implementation processes. As Rydin (2014) points out, while the planner might periodically play a role in translating network configurations, he/she is rarely the most important within the network. Ultimately, urban planning can be positioned as a process of translation, where a diverse set of actants—physical/material things and the social—come together to create a reality. ANT analyses of planning need to recognize that network configurations are dynamic, constituted by both human and non-human actors which exert influence over the network structure and outcomes. They transform, rather than simply transport objects through time and space (Bryson et al., 2009). Reflecting on the case of Newcastle, planning is inherently multifarious and problematic given the complexity of cities; and ANT provides us with approach which emphasises contingency and fragility (Doak & Karadimitriou, 2007).

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