

LSRM Final Assignment

Actor-network Methodological Approach to Scenario-based Research by Design

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I INTRODUCTION

The imperative of awareness and criticality towards ones own research methodology cannot be understated. Given the cyclical inferential dualism that exists between theory and practice, where method is the operative mediation between the two, this reflexivity underlies ones way of knowing – no less a case of causality as asserted by Alvin Goldman¹. Architecture as a discipline, like many others, does not escape this fundamental conception. Our readings of the world actuate particular actions performed by ourselves within the world that we observe. These readings hold the ontological assumptions that frame a distinct world-view characterised by a melange of ideologies, theories, and values that one, consciously and unconsciously, associates and engages with. In turn, each ideology, theory, or value holds an agency that structures our thoughts differently, and thereby results in a different action. Thus, there is no doubt that ‘how we build is informed by how we understand the world, and how we understand the world is framed by what we have built there.’² Moreover, as it is often the case that one engages with a multitude of structuring theories, it is important to be explicit and self-critical about the theories utilised such that oneself and those who engage with ones work can understand how the methodology for a piece of research is arrived at, aiding in the validation the findings (if completely soundly) as well as anticipating potential outcomes.

It is the aim of this essay to formulate a particular position on the application of actor-network theory (ANT) within an architectural project that centres itself on the logics of financialisation. This essay will first define the research project that the methodology in question is utilised within alongside the studio in which the project is situated within. Following the introduction, chapter (2) will introduce and discuss the chosen methodology through the means of a short literature review. In chapter (3), a reflection on actor-network theory will be given with particular focus in its application in a plethora of practices and intentions. Lastly, chapter (4) will provide a positioning on the use of actor-network theory based upon the discussion in prior chapters.

The relentless encroachment of finance that operates upon a predatory logic³ marks the point of departure for this project. To explore the dynamics of politics and economics in moulding the built environment, the project centres on Brexit as a paradigm shifting event, and fictional scenarios are drawn that describes the timeline before and after indicative date of leave from the European Union by the United Kingdom. Aligning with the exploration aims of the studio, the project fundamentally operates on a ‘research by design’ methodology, where the outcome of the project is not founded upon a final product per se, but on the knowledge that can be drawn from the process of design. As such, the project will draw one scenario, in the form of an ongoing developer project that is under construction, as a constant. From here, three different scenarios respective to the three archetypal resolutions of Brexit will be produced to explore the effects of politics and economics on the built environment, and more importantly the potential agency of the architectural profession. It is the intention of the project to utilise ANT as an approach to draw up the relevant, material and non-material, actors and stakeholders, which are at the heart of the production of each scenario, including the initial scenario from which all variation will be derived.

1 Alvin I. Goldman, “A Causal Theory of Knowing”, *The Journal of Philosophy* 64, no. 12 (1967): 357-372.

2 Ray Lucas, *Research Methods for Architecture*. (London: Laurence King Publishing, 2016): 8.

3 Christopher Marcinkoski, *The City That Never Was*. (New York: Princeton Architectural Press, 2015).

Saskia Sassen, *Expulsions: Brutality and Complexity in the Global Economy*. (Cambridge, MA: Harvard University Press, 2014).

II RESEARCH-METHODOLOGICAL DISCUSSION

Against this background, I am leaning on ANT as a method of analysis as it opens up potentially fruitful pathways for exploration. ANT is a theoretical and methodological approach to social theory where everything in the social and natural worlds exists in constant shifting networks of relationship. Coined by the authors Bruno Latour, John Law, and Michel Callon⁴, the theory assumes that all participants, processes, objects, ideas, and humans, have equal agency to affect any given situation within these networks. As such, the presupposed human and non-human division in the observational ontological framework is broken down, allowing for the consideration of a wider process of hybridisation, that contrasts with a modern understanding of the world. Following the theories proposed by Bruno Latour in 'We have never been modern'⁵, this allows for a more wholesome understanding of a particular situation, as it facilitates for the recognition of these hybrid processes whilst placing the planning, and the objects in which it results, at the centre of these activities.

At the same time ANT allows for a certain reshaping and reconsideration of power structures in the context analysed: 'The political project envisaged by ANT [...encompasses the] redefinition of democracy towards participatory practices [...] recognis[ing] and represent[ing] humans and nonhumans as political actors.'⁶ This political engagement is rooted in the egalitarian treatment of all actors, which results in a deconstruction of power imbalances that are prevalent, through the construction of actors. In the instance of a site, this includes the right for locals to shape and to produce 'knowledge and transformative engagement with [...] public matters'⁷.

The reasons for choosing ANT can be located on the one hand in its political potential and on the other hand in some of its analytical qualities. ANT does not inherently problematise, which is enhanced by a focus on a neutral language and an ambition to not embody presupposed characteristics. It is considered that these qualities are helpful in this very humble attempt to ground the prevailing subconscious gaze and to be able to evaluate the context with as little foreign biases as possible. Therefore the analysis through ANT can empower design teams to understand their target audience's context, relationships, and distribution before they attempt to create innovations, developing a shared understanding of the implications of their proposed product designs, policies, and services.

In addition, the very network medium that ANT operates upon compliments the research subject of the project of financial logistics as the medium finds itself within the much accepted field of social-network analysis which has since developed into network science. Furthermore ANT brushes up against the much contemporary sociological discourse such as networked society⁸ popularised by Manuel Castells amongst others, who builds upon the 'very old forms of social organization'⁹ to arrive at the conception of space of flows, which describe hubs of networks of communications that global elites travel and locate themselves within rather than any particular material location. The understanding of a networked society that is enabled by contemporary technology is pushed further by the empirical works of Stephen Graham and Simon Marvin in *Splintering Urbanism*, which drew attention to the plethora of cities across the world and how they play a role in the structuring of lives through a conception of cities as a series of infrastructural landscapes that are superimposed onto the world.¹⁰

4 See Michel Callon. 'Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay'. In John Law (ed.), *Power, Action and Belief: A New Sociology of Knowledge* (London: Routledge & Kegan Paul, 1986). and John Law and John Hassard (eds.), *Actor Network Theory and After* (Oxford and Keele: Blackwell and the Sociological Review, 1999).

5 Bruno Latour. *We have never been modern*. (Cambridge, MA: Harvard University Press, 2012)

6 Ignacio Fariás, "The Politics of Urban Assemblages," *City* 15, no. 3-4 (2011): 365-74, <https://doi.org/10.1080/13604813.2011.595110>.

7 Fariás. 371.

8 Manuel Castells. *The Rise of the network Society* (Oxford: Blackwell, 1996).

9 *Conversation with Manuel Castells*, p. 4 of 6. Globetrotter.berkeley.edu. Retrieved 2018-10-06.

10 Stephen Graham and Simon Marvin. *Splintering Urbanism* (London, Routledge, 2001).

Thus, for its non-dualistic, unbiased, and qualitative attributes ANT is chosen for its homogenising approach to observation. Additionally, with all actors attributed equal agency to affect the network, it is believed that the presupposed dualistic divisions such as human and non-human, nature and society, local and global, action and structure, and political left and right are broken down in this observational ontological framework. Naturally, ANT will also aid to function as a strategy to improve ones sensitivity towards the terms and conditions and underlying unexplored assumptions that are at play in the field of finance and property development which is often neglected in the education of architecture.

III RESEARCH-METHODOLOGICAL REFLECTION

To reflect upon the methodology of ANT, two instances of its applications in a variety of fields will be discussed in this chapter. To be highlighted will not only be ANT's versatile application, in that when utilised rigorously it can be enlightening for disciplines that are not relevant to the social sciences, but also the way in which ANT is applied and to what extent it was used.

Yvonne Rydin¹¹ produced an ANT-based analysis of a commercial office development and its carbon performance within the regulatory planning process (figure 1.). Rydin utilises the ANT terminologies of intermediaries, obligatory passage point, and black box to describe the role of planning policy documents, the planning consent process and the energy-modelling exercises respectively. To clarify, Rydin labels the role of planning policy documents as intermediaries due to their mobilisation to define the relationships between social actors in the network. In Rydin's case study, the planning consent process is understood as an obligatory passage point as it not only 'ties together the social actors'¹², but also 'further involves actants such as the site, the physical form of the development, the energy generation technology...' ¹³ assembling actants into sub-networks for further negotiation between actors in each sub-network. Finally, the black box is a particularly interesting concept as it describes a box that is closed and opaque and therefore its content cannot be seen, it is only when a black box is opened that its constituent elements become visible. For Latour¹⁴, the black box is understood as a truth, one that is collectively affirmed. As such, the more often an actant is associated with other actors and its own actor network does not get broken down, the more it is believed to be real and therefore the truth. It is for this reason that ANT can be viewed under the lens of realism as opposed to relativism. Evidently with this idea Latour is attempting to go beyond the Kantian notion 'that reality and objectivity are related to the physical world while perception, construction and subjectivity are to be found solely in the human mind'¹⁵. Yet it still nonetheless raises an epistemological question of the reality of things if its reality is only founded upon its association with other things.

Whilst the methodology of ANT aids one in gathering information and understanding that information by building the inherent network associated with that information, it is relatively easy to get lost within the network that one constructs. No doubt, if one was to be rigorous, disciplined, and methodical, one can map the entirety of the world with ANT, however there comes a point in which the understanding of the information collected and structured begins to get lost. It is interesting to see that Rydin has addressed this issue by introducing the weighted version of the same network in her paper. The iterated network clearly highlights some form of centrality to the network as a whole, singling out three key social actors - architect, development control planner, and developer. Furthermore the singled out actants, with the addition of energy generating technology and the built form of the development, are highlighted as that are 'gathered within the obligatory passage point of the regulatory planning process.'¹⁶

11 Yvonne Rydin, "Using Actor-Network Theory to Understand Planning Practice: Exploring Relationships between Actants in Regulating Low-Carbon Commercial Development," *Planning Theory* 12, no. 1 (2013): 23–45, <https://doi.org/10.1177/1473095212455494>.

12 Yvonne Rydin, "Using Actor-Network Theory to Understand Planning Practice: Exploring Relationships between Actants in Regulating Low-Carbon Commercial Development," *Planning Theory* 12, no. 1 (2013): 36, <https://doi.org/10.1177/1473095212455494>.

13 Yvonne Rydin, "Using Actor-Network Theory to Understand Planning Practice: Exploring Relationships between Actants in Regulating Low-Carbon Commercial Development," *Planning Theory* 12, no. 1 (2013): 36, <https://doi.org/10.1177/1473095212455494>.

14 Bruno Latour, *Pandora's Hope: Essays on the Reality of Science Studies* (Cambridge Ma: Harvard University Press, 1999).

15 Bert De Munck, "Re-Assembling Actor-Network Theory and Urban History," *Urban History* 44 (2018): 119, <https://doi.org/10.1017/S0963926816000298>.

16 Yvonne Rydin, "Using Actor-Network Theory to Understand Planning Practice: Exploring Relationships between Actants in Regulating Low-Carbon Commercial Development," *Planning Theory* 12, no. 1 (2013): 31, <https://doi.org/10.1177/1473095212455494>.

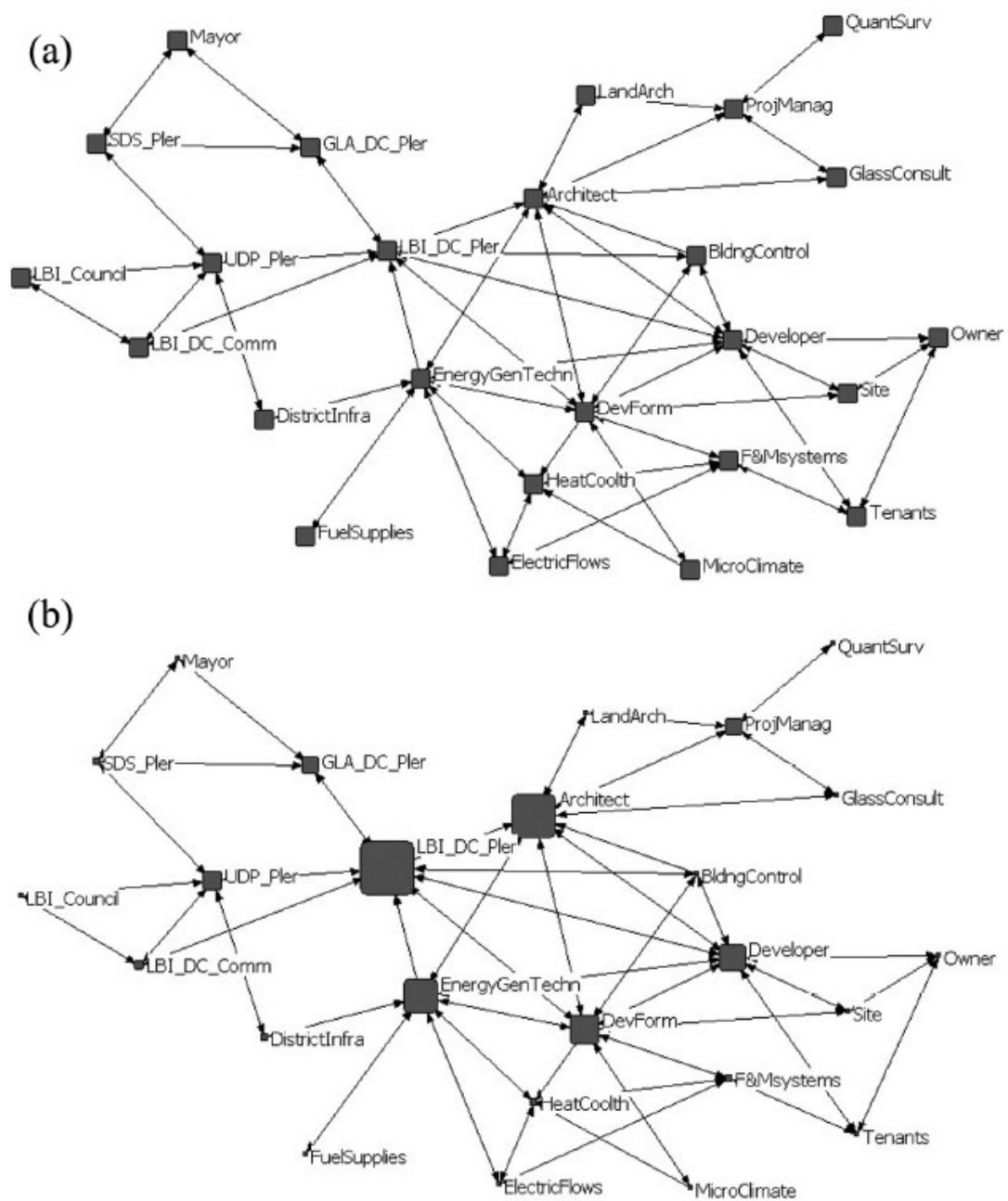


Figure 1. Network of all actants in commercial office development in Ropemaker Place. (a) is the base network from which (b) is derived where all nodes are weighted by scoring all nodes based on the number of associations it has.¹⁷

In Marija Cvetinovic, Zorica Nedovic-Budic, and Jean Claude Bolay's paper¹⁸ on the application of ANT to understand the complex nature of the urban development of the Savamala neighbourhood in Belgrade, the group develops a linear multi-step process to arrive a highly complex ANT diagram of Savamala (figure 2.). In this instance, the aforementioned issue regarding the legibility of potential networks derived from utilising ANT is evident. Not only does the diagram contain numerous actors and actants, there are also multiple layers of information embedded within the graphic not limited to colours, shape of nodes, stroke of nodes, stroke of lines, colours of lines, node fills colours, and size of nodes. For the group, the data that was collected from extensive review of written sources, interviews, workshops, and questions, were synthesised into a table that identified urban interpretations as well as urban elements which were then translated into the codex of graphics as previously described (figure 3.).

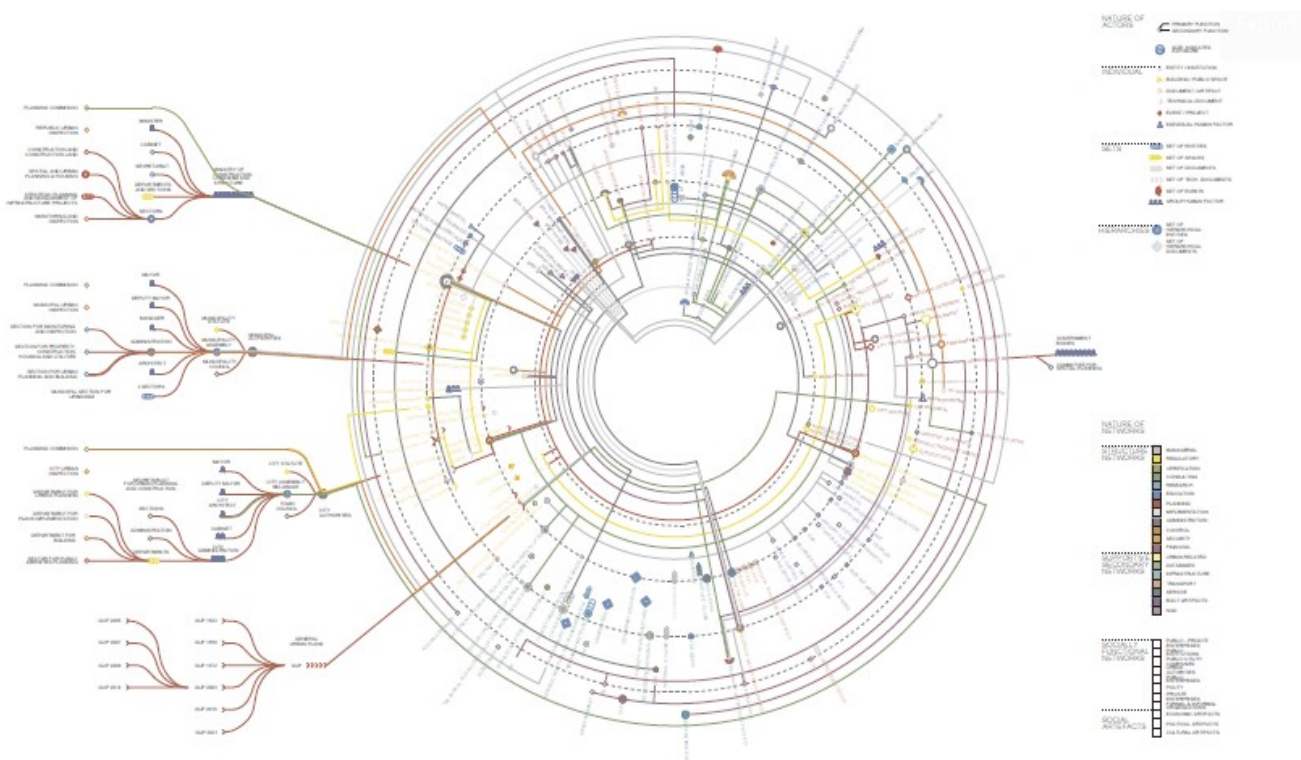


Figure 2¹⁹ ANT diagram of Savamala

18 Marija Cvetinovic, Zorica Nedovic-Budic, and Jean Claude Bolay, "Decoding Urban Development Dynamics through Actor-Network Methodological Approach," *Geoforum* 82, no. February (2017): 141–57, <https://doi.org/10.1016/j.geoforum.2017.03.010>.
 19 Marija Cvetinovic, Zorica Nedovic-Budic, and Jean Claude Bolay, "Decoding Urban Development Dynamics through Actor-Network Methodological Approach," *Geoforum* 82, no. February (2017): 154, <https://doi.org/10.1016/j.geoforum.2017.03.010>.

	ANT elements: concepts	Process of analysis	Results - urban analysis: contents		Operational definition	Data sources (Table 2)	
			Urban interpretation	Urban elements			
1	All human & non-human entities	identify	Urban key actors	Urban actors & stakeholders	Human urban actors	post-socialist urban theory literature, planning legislation and documentation, media sources (1-A)	
				Territory	natural		Spatial forms
					urban		
				Built environment	Regulatory framework		
				Institutional relations			
				Policy agendas			
				Urban infrastructure	Technical & technological entities		
				ICT			
				Political	Social aspects		
				Economic			
Cultural							
Levels of decision making	Top-down urban planning	Shape of nodes					
	Real estate transformations						
	Bottom-up participatory & design activities						
2	Intermediaries & mediators	Figuration of human & non-human entities	Nature of actors	Entity	Colour of circle lines	Documentation & Media (1-A-C-D) Student workshop (3-B)	
				Human			
				Artefact			
				Event			
3	Free associations	Convert into actors	Network of influence	Scale	Field colour	Expert questionnaire/workshop/interviews (2-3-4-A) Documentation (local, regional, national) (1-A-C-D)	
			social categories	Structure	Field colour		
			social artefacts	The social	Colour of nodes (stroke)		
4	Stabilizing & destabilizing agencies	Stabilize	secondary networks	Urban supporting systems	Colour of nodes (fill)	Expert/Participatory workshop/interviews (2-3-A-C) PhD workshop (1-B) Legal & Operational Documents (1-A)	
		organize	Agency networks	Urban function	Size of nodes		
5	Urban assemblages distribution of actor-networks	Simplify	centrality of an actor	Actors' presence in networks, decided from: (1) its presence in time, (2) number of relations, (3) types of relations	Colour of connecting lines	Expert workshop, Student workshop, interviews, round tables (3-A-B-C) Questionnaires (4-A-B)	
		functionalize	Nature of links	notion of performance/enactment			

Figure 2.²⁰ A categorisation of the data collected such that it is translated into the language of the ANT diagram

IV POSITIONING

To conclude, the architectural project in which ANT will be utilised is to be read as a vehicle for its implementation. Moreover ANT will provide the structure necessary for a sort of world-building exercise for the scenario-based research by design. To achieve this, an ANT approach to the reading of the procurement process of the built environment with particular focus on finance, development, and politics is intended to be completed. Upon completion, a fictitious design will be produced, whereby ANT will be re-introduced to act as an analytical tool to systematically tweak the network in relation to the three potential Brexit scenarios. As such, the element of time will also need to be addressed in the process of producing these said actor networks.

Moreover, as demonstrated by and raised by a number of scholars²¹, there are potential pitfalls with regards to ANT. For one, ANT has been criticised for being amoral due to its lack of concern with regards to the intentions or ideologies of actors. This point of criticism has often been disclaimed as null due to the fact that it is only in the construction process of the network that one should not take sides or positions that may affect the topology of the network, however one is perfectly well to take up such positions in reviewing the completed network. ANT apparent objectivity though can indeed be questioned, although it does make good grounds in homogenising ones perspective on all the actors that one draws, no doubt the pillar of one's own baggages, curiosities, biases will continue to prevail. however, indeed, the act of accumulating the knowledge and information through relational observations does open new potential underlying narratives that may have been missed or assumed dismissed. The case of which can be seen in Luuk Boelens' application of ANT in Dutch planning. Whereby although a network and ANT's approach to conceptualising the world has been taken into account, ultimately the pragmatism in having to generate revenue for subsistence overpowered any attempt at homogenising the field of actors. The author, however does raise that new and creative solutions were found utilising this methodology (figure 4.). No doubt then, that ANT like many other theories and accompanying methodologies is a double-edged sword and one has to be critical of ones action at all stages of the project such that a rigorous, logical and coherent result is arrived at.

21 Daniel Miller, "Turning Callon the Right Way Up," *Economy and Society* 31, no. 2 (2002): 218–33, <https://doi.org/10.1080/03085140220123135>.
Langdon Winner, "Upon Opening the Black Box and Finding It Empty : Social Constructivism and the Philosophy of Technology Science, Technology, & Human Values" 18, (1993): 362-378.
Stuart Shapiro, "Caught in a web: The implications of ecology for radical symmetry in STS." *Social Epistemology* 11, no.1 (1997): 97-110. doi:10.1080/02691729708578832

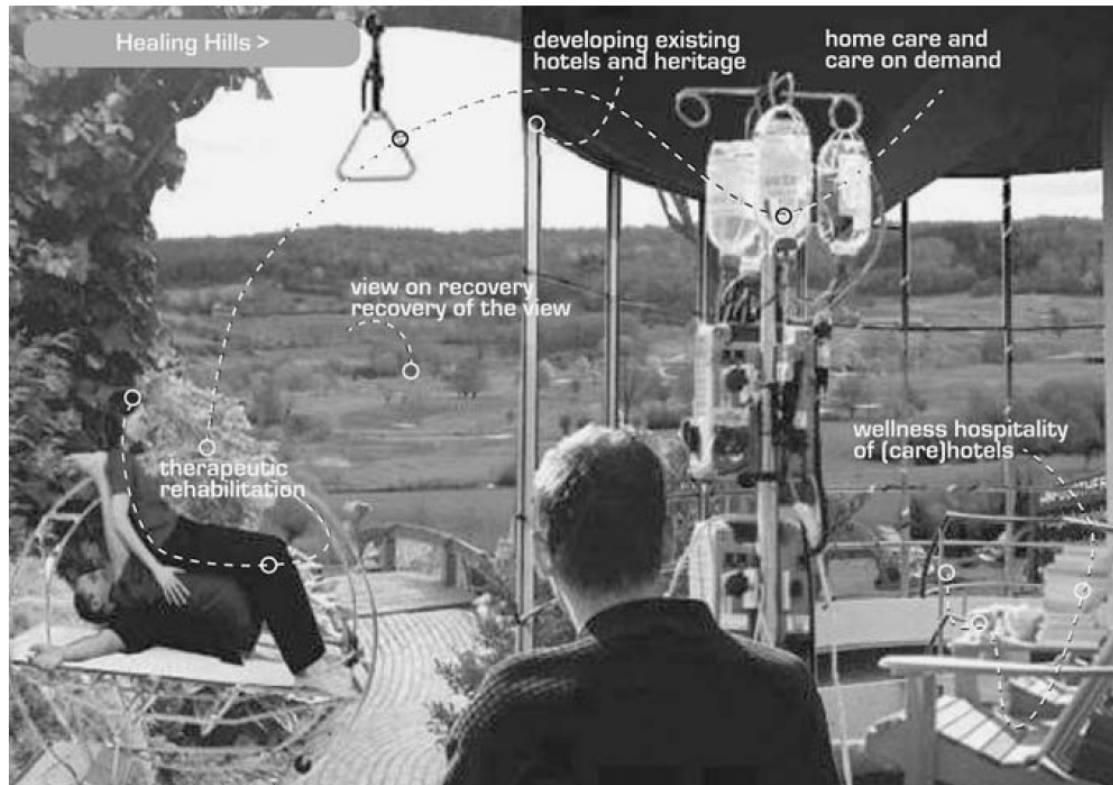


Figure 4.²² A network superimposed onto an image to describe the relation between a hotel and a hospital, in which the patients of the hospital could stay in the hotel after a number of nights such to free up beds in the hospital.

22 Luuk Boelens, "Theorizing Practice and Practising Theory: Outline for an Actor-Relational-Approach in Planning," *Planning Theory* 9, no. 1: 51, accessed December 30, 2018, <https://doi.org/10.1177/1473095209346499>.