

THE SIGNIFICANCE OF CONSTRUCTIVIST GROUNDED THEORY ON THE CREATION OF A FUTURE SCENARIO

A review on the constructivist form of Grounded Theory in building a future situation which is presented through scenario writing.

INTRODUCTION

In the discipline of architecture, research plays a fundamental role in how it is practised and realised. From the materialistic data needed for intricate detailing to the understanding of extensive sociocultural theories for urban planning strategies, research generates knowledge that supports architecture in every scale. Architecture is undoubtedly dependent on research and knowledge, the use of a structured research method helps (and is often considered obligatory) to achieve a design that is well-defined and established in its motives. However, architecture students (not excluding professionals) often struggle with understanding the concepts of conducting research. This is not unexpected since architecture is a complex, multifaceted field of study where there is not a singular way of doing research but the answer is as multifaceted as the discipline itself. By proposing the right questions and methods, an original contribution can be made to the ever-developing body of knowledge in architecture and for this knowledge to progress, we must continue to conduct research into its history as context and precedent; the social and cultural role of buildings; and the theory of what it means to build and dwell.¹

The Research Methods lecture series engaged students in an interactive discussion with guest lecturers about different methodological tools that can be used for researching the discipline of architecture. During the first lecture, I realised that not only the act of researching leads to generating knowledge for one's spatial production. But also, that the chosen research methodology is linked in a very different process and also leads to other outcomes of knowledge to one's projects. Thus critically positioning oneself towards the architectural assignment is of high importance in order to select the appropriate method of research for what is specifically looked-for.

My graduation studio AMS-Mid city falls under the chair of Complex Projects. The project investigates the future challenges of Amsterdam within the year 2100. The general approach that is prevalent in Complex projects starts with the understanding of that the city operates in many different scales and possesses numerous cultural situations, recognising that the city contains hundreds of layers of information that are constantly interacting, changing and evolving with each other. Based on this understanding, a design narrative is developed on the person's interest of the city which forms the backbone for one's architectural project. My thesis deals with the aspect of leisure and pleasure by incorporating a space for (digital) gaming in the site where gamers can both play and view video games. This subject was conceived in an experience economy future, which values experiences and socialism over materialism and capitalism. The research question I propose for this project is, 'How can a Gaming-hub manifest itself spatially in the 2100 situation of Amsterdam?' The question incorporates both the personal project and the studio's assignment.

RESEARCH-METHODOLOGICAL DISCUSSION

In our studio, the goal of the assignment is to define a situation of Amsterdam in the year of 2100 that can be reflected into spatial reality. This imaginative 'reality' will be the framework where each personal architecture project will manifest in. What data is essential to analyse for the development of a city? Do we only look at the population growth or take all possible layers into account? What defines a future situation? These are questions that were asked during the start of the studio. A structured way of scenario planning is proposed by Peter Schwartz, who has formulated the process of scenario planning. Furthermore, he states that when it comes to future predicting, looking at past knowledge is outdated and when it comes to scenario planning the identification of possible factors of influence, and definition is far more critical for generating the possible alternative realities.² Because of the inductive and investigative traits of the assignment, Grounded Theory was chosen as the research methodology in achieving the 2100 situation of Amsterdam.

¹ Ray Lucas, *Research Methods for Architecture* (London: Luranc King Publishing Ltd, 2016), 7.

² Peter Schwartz, *The Art of the Long View: Planning for the Future in an Uncertain World* (New York: Broadway Business, 1996 [1991])

The Grounded theory methodology starts with a study that allows the theory and variables to emerge from the research process itself and is not to be presumed beforehand.³ The methodology consists of an iterative research process that simultaneously involves data collection, coding (data analysis), and memoing (short writings) which are combined to generate the final theory. Data can be collected from different methods; the critical point of data collection is that the data is identified and organised by labelling them. After labelling, the data is analysed by looking for connections and differences in the data so they can be further arranged into concepts, this process is called coding. Through the course of the research, these concepts developed into a set of categories that are then composed to build a comprehensive theory.⁴ The iterative process or as the founders Barney Glaser and Ansel Strauss call, 'Constant comparative method' is essential in how Grounded Theory works in the sense that once a theory has been proposed, it needs to have explanatory power so when new data is introduced the theory remains unaffected.⁵ Grounded Theory can be distinguished from many other qualitative research approaches because it goes more in detail in re-examining the research over the entire length of the project.

The approach of Complex projects, data is collected by depicting and examining many different layers of a city, which are then assessed continuously in different scales and periods to generate prognoses for the future. These are then combined to formulate the theory, which in the case of Complex Projects is embedded in a narrative. This approach does not intentionally identify the critical factors that influence the possible alternative realities but rather analyses everything. By adopting the Grounded Theory, the formulation categories in the research process can help to define these factors of influence. Furthermore, Grounded Theory offers the opportunity to shape the project inductively, by building up the end product rather than justifying a particular vision. Historically architects have made future models in sometime a tabula rasa manner. Analysing these and adopting them does not show what research for a future scenario is.

It is common for architecture researchers to include subjective perspectives of people into their research as done often in praxeology. However, this qualitative data is seldom rigorously analysed or apprehended as a fundamental piece of the research design. Recent research covered the influences of design, operations and occupancy on the plug load energy use in student residence halls.⁶ Grounded Theory was used as a follow-up of the quantitative study done on the energy used in the residence halls. The mixed methods allowed the question asked during the interviews to be more objective. The analysis process of the gathered data resulted in concepts such as; managing costs, orienting students and modelling behaviour emerged. These were further developed into a the theory of one coherent process of 'balance of power', which suggested that students have the power to bring electronic devices and chose how to use them, facility managers have the power to create, change or impose how students use the energy and how designers have to power to influence which energy efficiency strategies, capabilities and technology are part of the design process.⁷ In this study, the qualitative and quantitative data are done independently from each other. However, this process can also be done in conjunction as Glaser said, 'All is data'. Sources like interviews, observations, documents etc. can be used in whatever combination.⁸

RESEARCH-METHODOLOGICAL REFLECTION

Grounded theory was revolutionary in a period where deductive methodologies were dominant in the field research. Grounded Theory was first introduced by the sociologists, Barney Glaser and Anselm Strauss in their book, *The discovery of Grounded Theory* which was published in 1967. With this

³ Anselm Strauss and Juliette Corbin, *Basics of Qualitative Research* (Thousand Oaks: SAGE, 1998), 12.

⁴ Barney Glaser & Ansel Strauss, *The Discovery of Grounded Theory: Strategies for Qualitative Research* (New York: Aldine Publishers, 1967), 2-6.

⁵ Kathy Charmaz, *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis* (California: SAGE, 2006), 11.

⁶ Christina Bollo & Tom Collins, *The Power of Words: Grounded Theory Research Methods in Architecture & Design*, Brikbase, 2017, 90, accessed December 3, 2018, https://www.brikbase.org/sites/default/files/ARCC2017_Session2A_Bollo_Collins.pdf.

⁷ *Ibid.*, 91.

⁸ Barney Glaser, *The Grounded Theory Perspective* (Belmont: Sociology Press, 2001), 145.

book, they set to change the then prevailing norm of doing qualitative research from a descriptive stance towards a study that is built around an explanatory theoretical framework.⁹ This can also be seen back in architectural discourse, where there seems to be a more significant appeal to propose critical questions that ultimately generate their concepts, instead of justifying it.

The introduced form of Grounded Theory can be identified as classical Grounded Theory since its introduction two more standpoints have emerged from Grounded Theory. The first new standpoint comes from Strauss himself, since the initial book on Grounded Theory he has modified his perspective and further developed it with Juliette Corbin by proposing a systematic procedure for analysing data which included deduction in the data analysis instead solely relying on induction to develop a theory.¹⁰ Various disciplines have prominently adopted both of Grounded Theory as research methodologies, but it has also been criticised in the early 1990s for its positivistic assumptions. In the sense that classic Grounded Theory seem to assume that there is a reality 'out there,' where theory can be discovered 'from data that is separate from the scientific observer.'¹¹

Thus, many researchers moved away from the post-positivist origins and have taken the prescribed tactics of ground theory within a constructivist or transformative school of thought with a more intersubjectivist episteme which are becoming more standard in the current discourse of qualitative researcher.¹² In the early 2000s, Katy Charmaz introduced a version of Grounded Theory that encompasses a constructivist perspective in the sense that the theory is a co-constructed endeavour that is developed by not only the iterative progression of data collection and analysis but also the connection that participants and researchers have with the collected data and emerging theory. Beside deduction and induction, the creative and intuitive nature behind abduction is also used to make sense of the data. This could help the researchers find answers to unanswered or unexpected observations more accurately.¹³ These changes resulted in the constructivist grounded theory research process to be more flexible, reflexive and interpretive than the one Strauss and Corbin present. Among the versions, there are differences in the theoretical and philosophical assumptions as well as how the analytical process is done. One thing the three Grounded Theories have in common is that all generate theories to explain the phenomena under investigation.¹⁴

Since I had already started researching and reading into different future concepts and visions, my intuition was already at play during the research process. Constructivist Grounded theory's capacity for abductive reasoning makes this approach appropriate for further guiding the data collection and analysis process. Furthermore, the flexibility that the constructivist approach provides in moving from data collection to synthesizing analysing and conceptualizing data and back (which provides further direction in data collection) is more suited for my assignment since the future situation, in this case, encompasses not only time and space but also many other layers of the city. The procedure of looking for data rather than looking at data will help to give direction in the research. This way of thinking is helpful because there are many different possibilities for the future in the sense that the future is still speculative, and that the spatial structure is yet to be built.

POSITIONING

The lecture of Klaske Havik about literary writing tools was one that led me to understand how different forms of writing can support and clarify specific design intentions in not only describing the visual elements of the space but also in how we experience, use and imagine them. This revelation about literature inspired me to use writing as a method for not only analysing but also as a form of knowledge gathering and architectural production for own project. Writing is rooted in how the methodology of Grounded Theory works. During the coding process, memos are produced by

⁹ Kathy Charmaz, *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis* (California: SAGE, 2006), 6.

¹⁰ Ansel Strauss & Juliette Corbin, *Basics of qualitative research: Grounded theory procedures and techniques*. (California: SAGE 1990)

¹¹ Linda Groat & David Wang, *Architectural Research Methods* (New Jersey: John Wiley & Sons Inc., 2013), 239.

¹² *Ibid.*, 241.

¹³ Kathy Charmaz, *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis* (California: SAGE, 2006), 103-104.

¹⁴ Shaminder Singh & Andrew Estefan, *Selecting a Grounded Theory Approach for Nursing Research*, report, Ethics, Theoretical Development, or Methodological Development Article, The University of Calgary (SAGE, 2018), 6.

translating data into short writings. But different forms of writing lead to different results, thus applying the right tool is essential in formulating the desired outcome of a future situation.

In the book *Urban Literacy: Reading and writing architecture*, three 'scriptive' concepts are presented that connect important aspects of urban literacy with architectural research and practice. These concepts: description, transcription and prescription are connected with the architectural notions of experience, use and imagination.¹⁵ Furthermore, a series of literary tools are presented that fit into these concepts with examples of how these are used by contemporary architects to extend the spatial, sensual and emphatic imagination in their work. An example of prescriptive writing can be seen in the work of Rem Koolhaas in his book, *Delirious New York*. Here the literary tool of scenario writing and metaphors were used to not only describe the city but also 'prescribe' what the urban and architectural imaginations can have become.¹⁶ The literary tool of scenario writing helps to imagine multiple possibilities by posing what if questions concerning future developments.¹⁷ By adopting scenario writing in the memos, the synthesised theory can adopt a narrative that encompasses both reality and imagination. The other concepts of description and transcription are also used for expressing the future situation but are not the central perspective that the narrative is written in.

There are different perspectives how one can look at the future, one that is now culturally prevalent among writers, researchers, and architects is that the future is inevitable, something that can at best be predicted and reacted to. Another view which is less widespread is that the future can be made by developing goals and achieved by actively working towards them.¹⁸ In my view, both concepts of reaction and 'active' development ought to be taken into consideration of creating a future scenario. Therefore, the chosen data in my research does not have to be limited to numbers, statistics and prognoses, visions and other possible future worlds as presented in architecture, film, art and literature work can also be taken into account. Although it is not necessary that these (sometimes radical) visions manifest themselves into spatial compositions, they help to create a position of what it preferably should be.

Concluding this paper, a question arises if the scenario provided by Grounded Theory truly has explanatory power. Data continually changes and encompassing all of it is impossible, so providing a situation that is 100% accurate is there for impossible. The methodology presented in Grounded Theory certainly helps in generating the factors that influence how cities develop. However, ultimately nothing is certain, and we can only make an educated guess about what is to come.

¹⁵ Klaske Havik, *Reading and Writing Architecture* (Rotterdam: nai010 publisher, 2014), 174.

¹⁶ *Ibid.*, 183-184

¹⁷ *Ibid.*, 233

¹⁸ Nick Montfort, *The Future* (Cambridge: The MIT Press 2017), xi - xii.

Bibliography

- Bollo, Christina, and Tom Collins. "The Power of Words: Grounded Theory Research Methods in Architecture & Design." Brikbase. 2017. Accessed December 3, 2018. https://www.brikbase.org/sites/default/files/ARCC2017_Session2A_Bollo_Collins.pdf.
- Charmaz, Kathy. *Constructing Grounded Theory a Practical Guide through Qualitative Analysis*. Los Angeles: Sage Publications, 2006.
- Glaser, Barney G. *The Grounded Theory Perspective*. Mill Valley, CA: Sociology Press, 2001.
- Glaser, Barney G., and Anselm Strauss. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine Publishing, 1967.
- Havik, Klaske. *Urban Literacy: Reading and Writing Architecture*. Rotterdam: Nai010 Publishers, 2014.
- Lucas, Ray. *Research Methods for Architecture*. London: Laurence King Publishing, 2016.
- Montfort, Nick. *The Future*. Cambridge, MA: MIT Press, 2017.
- Schwartz, Peter. *The Art of the Long View*. New York: Doubleday Currency, 1991.
- Singh, Shaminder, and Andrew Estefan. *Selecting a Grounded Theory Approach for Nursing Research*. Report. Ethics, Theoretical Development, or Methodological Development Article, The University of Calgary. SAGE, 2018. 1-9.
- Strauss, Ansel, and Juliette Corbin. *Basics of Qualitative Research*. Thousand Oaks: SAGE Publications, 1998.
- Wang, David, and Linda N. Groat. *Architectural Research Methods*. Hoboken: Wiley, 2013.