

# DESIGNING FOR THE FIFTY-FIVE PER CENT

## A dialectical approach

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### I INTRODUCTION

The course research methods focuses on the ways in which we can perform research. But what is research in design? In their paper *The complex field of research: for design, through design and about design* Frankel and Racine write about three roles research can play in the design process. The first is research for design, which makes designing possible and is only applicable to one specific case. The second, research through design, provides knowledge which is applicable for multiple cases. And the third, research about design looks into what designing actually is.<sup>1</sup> The course *Methods* focuses mainly on the first two roles; research for and through design.

By giving us an insight in the different forms of design research the course tries to expand our architectural toolbox. Is research however just a tool for the architect? Putting it another way, how does research relate to design? In his lecture about heuristics J. Mejia Hernandez provides us with a possible answer. In his view it is not our task as architects to prove our right but to make our knowledge grow. Consequently, for our knowledge to grow, research cannot be subservient to design. This is an interesting notion for it not only states that research is equally important as designing but it also states that the most important result of a design is no longer the completed design but the knowledge that is acquired in the process. Secondly, in this view no design should be a final answer but rather a partial hypotheses until something better comes along. A satisfying result will therefore never come in the form of a perfect building, but rather in the form of a building that is the architects best answers to the stated problem at this moment.

Throughout the course it was emphasized that working toward this result can only be fruitful if the designer has a clear image of the problem he tries to solve. Moreover clearly defining the problem sometimes is the best possible result. The problem that has to be identified finds its bearings in the Netherlands, the project area of Minerva harbor lies west to the city of Amsterdam within the A10 ring surrounding it. In the Dutch capital a globally increasing phenomenon is occurring. As a result of the growing individualization in modern society an increasing number of people are living by themselves. In Amsterdam, Fifty five per cent of all households are single person households. Because of their solitary status they have to make due with about half the income of the households formed by families. As in most big cities around the globe housing prices are skyrocketing resulting in a mix-match. These households on a budget cannot find suitable, affordable housing. This raises the preliminary research question, How can we design affordable housing that provides for the needs of single person households in Amsterdam?

<sup>1</sup> Frankel, L., & Racine, M. (2010). *The Complex Field of Research: For Design, through Design, and about Design*.

## II RESEARCH-METHODOLOGICAL DISCUSSION

Doing research in the Dwelling graduation studio consist typically of three parts; individual research into the topic, followed by an analysis of reference projects in which you focus on one aspect that is of interest to your topic and conclusively generated knowledge of both is combined in a week of hands on designing. These three parts will be used for my graduation project as well.

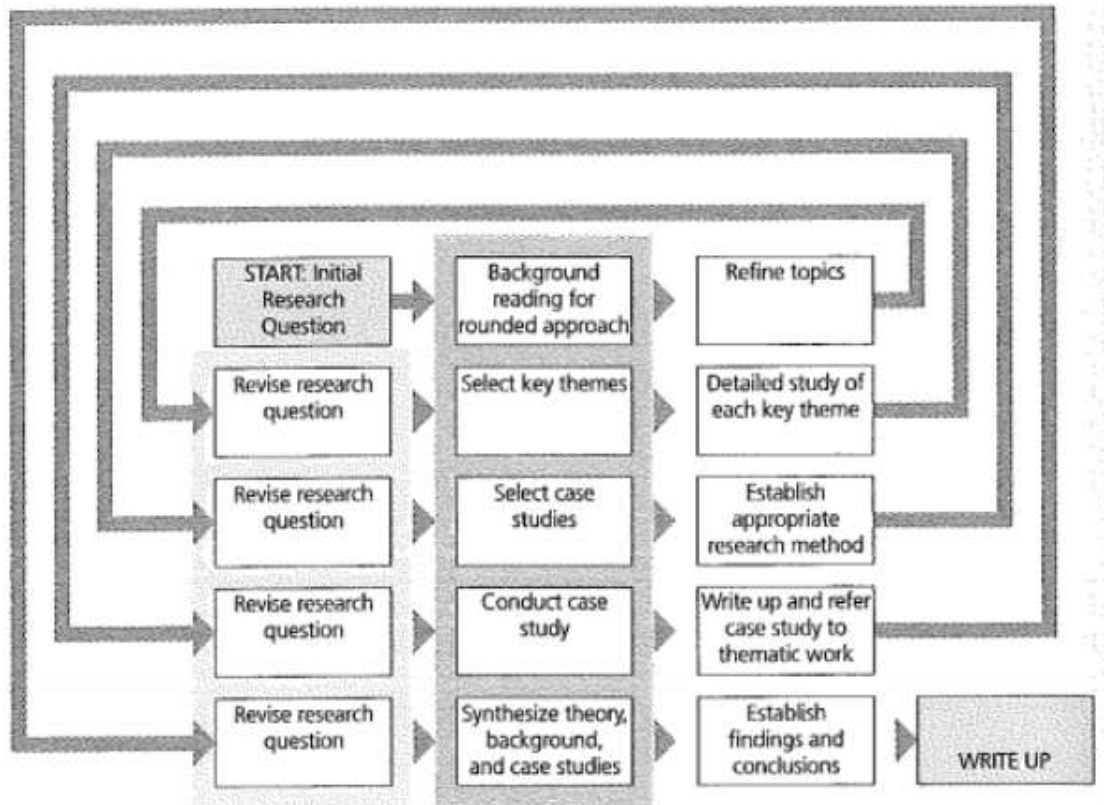


Fig. 1. Research depicted as a series of loops (Lucas, 2015 p.26)

The individual research and case study analysis will be carried out as described by Ray Lucas in his book *Research Methods for Architecture*<sup>2</sup> (2015). In this book academic research is depicted as a series of loops in which the research question is constantly revised after doing more research (Figure 1). The initial research question was followed by extensive background reading to refine the topics. This lead to the formulation of two key themes that have been further investigated: loneliness/social isolation and affordability.

Affordability can be tackled by providing smaller more efficient housing.<sup>3</sup> The problem of loneliness can be tackled by providing more opportunities for unforced social engagement<sup>4</sup> inside the housing complex. To come to a solution suitable for solo dwellers in Amsterdam I will be using the philosophical method of Dialectics, which is a form of reasoning that through the use of contradictions tries to find the truth. First there will be formed a thesis and antithesis and subsequently a synthesis will be formed. The thesis here is; the answer to the housing problem for the single person household in Amsterdam can be found in the application of small dwellings combined with communal space. Where the antithesis will be: the individualized solo dweller in Amsterdam prefers a bit more personal space over a smaller space combined with shared spaces i.e. is not interested in sharing.

<sup>2</sup> Lucas, R. (2016). *Research methods for Architecture*. London: Laurence King Publishing, 2016 (p.26)

<sup>3</sup> Leclaire, A. (2018, 5 oktober). Over twintig jaar wonen we zo. Geraadpleegd 5 oktober 2018, van <https://www.nrc.nl/nieuws/2018/10/05/over-twintig-jaar-wonen-we-zo-a1751234>

<sup>4</sup> Winch, G. (2014). *Emotional First Aid: Healing Rejection, Guilt, Failure, and Other Everyday Hurts*. New York, USA: Plume.

The Structuralist movement from the sixties is especially interesting to study to gain a better understanding of this thesis and antithesis because it focuses on the reciprocal influence of the collective/communal and the individual/personal.<sup>5</sup> The structuralist ideas however, are already over 50 years old and therefore they have to be tested for the current period in time. For this I will conduct qualitative research, answering the question: what part of the Structuralist ideas nowadays still have value? Because this form of research is quite subjective I will also perform a quantitative research into the wishes of dwellers regarding private versus shared space. What are they willing to share?

Lucas tells us architecture is built upon the idea of precedents, and the close examination of earlier work.<sup>6</sup> (Lucas p 35) After we have created an elaborate body of knowledge we will investigate how architecture has created and is creating smaller dwellings in combination with shared spaces in order to find out how and if these solutions give an answer to the problems of affordability and social isolation. The state of the art precedent is provided by Mecanoo architects who designed social housing in Kaohsiung, Taiwan focusing on combining social housing with the use of shared space. The historical example is found in the Structuralistic Weesperflat in Amsterdam by Herman Hertzberger. The focus here lies on providing tiny rooms for sleeping and studying and shared amenities for all other functions. The goal is to figure out what ideas are inherent in these examples, how they differ from each other and how they, individually provide answers for affordability and reduction of social isolation. To finalize the research the findings of the individual research and the case studies are combined to enrich the theoretical findings with architectural applications.

### III RESEARCH-METHODOLOGICAL REFLECTION

Dialectics in western philosophy was first introduced by Plato(427 B.C.- 347 B.C.) who attached great importance to it.<sup>7</sup> Dialectics form the essential structure of his best known work, *Republic*. Dialectics operates as follows. A hypothesis is taken, a questionable assumption, subsequently the dialectician tries to show that it leads to a contradiction. He tries to produce a logical refutation, or in the Greek technical term, an elenchus. If a contradiction is reached the hypothesis is refuted after which the dialectician moves on to test the other premises of which the hypothesis is constructed until he reaches a premiss which is unquestionable. Greek dialectics in this manner is a way of seeking out the essence.<sup>8</sup>

The next big step in western dialectical thinking was performed by G.W.F. Hegel (1770-1831). His work on dialectics is a confrontation between Greek dialectic and German philosophy. The schematic textbook version of this dialectic is the linear sequence of "thesis, antithesis and synthesis"<sup>9</sup>. If two propositions are contradictories, Hegel will describe this as a conflict between them: one proposition will go out to do battle against another, and achieve defeat or victory against it. Dialectics in this sense is the process by which one proposition (the thesis/ status quo) fights with another (the antithesis/ mechanism of change) and both are finally conquered by a third (the synthesis/progress).<sup>10</sup> For Hegel this refers to the complex, holistic, dynamic and open totality of movement which is responsible for progress.<sup>11</sup>

<sup>5</sup> Hertzberger, H. (2014) *Architectuur en structuralisme*. Rotterdam: NAI010, 2014 (p.77)

<sup>6</sup> Lucas, R. (2016). *Research methods for Architecture*. London: Laurence King Publishing, 2016 (p35)

<sup>7</sup> Kenny, A. (1998). *A Brief History of Western Philosophy*. Hoboken-USA: Wiley. (p.41)

<sup>8</sup> Wong, W. (2006). Understanding Dialectical Thinking from a Cultural-Historical Perspective. *Philosophical Psychology*, 19(2), 239–260. <https://doi.org/10.1080/09515080500462420> (p.241)

<sup>9</sup> Bubner, R. (1980). *zur sache der Dialektik*. Stuttgart, Germany: Reclam.

<sup>10</sup> Kenny, A. (1998). *A Brief History of Western Philosophy*. Hoboken-USA: Wiley. (p.277)

<sup>11</sup> Wong, W. (2006). Understanding Dialectical Thinking from a Cultural-Historical Perspective. *Philosophical Psychology*, 19(2), 239–260. <https://doi.org/10.1080/09515080500462420> (p. 242)

While western Hegelian dialectics concentrates on the battle between two opposites, eastern dialectics focusses more on harmony. Zang Zai (1020-1077) introduced the concepts of one two and three into Chinese dialectics. One (or “qi” /spirit) is the entity that contains all contraries that are potentially integrable. Opposing entities/ contraries in the human world and universe are called two, or Yin and Yang. Three is a synthesis of the contraries; in essence it is an enriched “one”. Fang Yizhi (1611-1692) made explicit that contraries are supplementary and could lead to enrichment by finding the middle way. This middle way by no means refers to a solution achieved by averaging or mixing. It is accomplished by simultaneously applying the two opposite poles. To clarify this Fang used the Buddhist sign *yuan-yi-san-dian* 圆·一·三·点. The two dots at the bottom represent the opposing poles. The dot on top helps to integrate the opposing poles by forming an imaginary circle. The search for the middle way is actualized in all different directions instead of a linear way.<sup>12</sup>

In architectural history we have seen dialectics taking place in the shift to modernism after the charter of Athens was published. CIAM's Modernism separated all functions and removed the human factor from the design equation.<sup>13</sup> Modernism was the antithesis posed against classicist architecture, after a period of negation we find ourselves in a post modernistic time which is the synthesis of classicist and modernist architecture.

How can architecture benefit from dialectics on a smaller scale, for example in design research? In a literary investigation it is possible to take issue with the existing literature. This can occur when disciplinary assumptions are made, poor methodology is used or when you take issue with certain political affiliations.<sup>14</sup> In these cases it is possible to introduce an antithesis, and use dialectics to reach synthesis.

Dialectics can also be useful in the analysis of precedents, as R. Lucas told us Architecture is built upon the idea of precedents. By looking at precedents architects define what is and try to find out what should be. The precedent in this example is the thesis, it's worth can be questioned by positing an antithesis. The resulting design choices can be seen as synthesis.

G. Goldschmidt also found dialectical thinking in the way architects approach a new design assignment. Architects execute a great number of drawings as a matter of standard practice. In the very early stages of a design these drawings are made very fast and are mostly only comprehensible to their maker. Goldschmidt sees the dialectics of sketching as the oscillation of arguments which brings about gradual transformation of images, ending when the designer judges that sufficient coherence has been achieved. This process however works in a different way than the 'thesis, antithesis, synthesis' process proposed by Hegel. Goldschmidt explains that while sketching, architects think by 'seeing as' and 'seeing that'. Seeing as is when figurative argumentation is used, seeing that is when non figural elements pertaining to the entity that is being designed are being advanced. The dialectic is found in the back and forth swaying movement which helps translate particulars of form into generic qualities, and generic rules into specific appearances.<sup>15</sup> In this view thesis and antitheses are replaced by seeing as and seeing that.

<sup>12</sup> Wong, W. (2006). Understanding Dialectical Thinking from a Cultural-Historical Perspective. *Philosophical Psychology*, 19(2), 239–260. <https://doi.org/10.1080/09515080500462420> (p.246)

<sup>13</sup> Sennett, R. (2018b). *Building and Dwelling: Ethics for the City*. UK: Penguin Books. (p. 72-74)

<sup>14</sup> Lucas, R. (2016). *Research methods for Architecture*. London: Laurence King Publishing, 2016 (p33)

<sup>15</sup> Goldschmidt, G. (1991). The dialectics of sketching. *Creativity Research Journal*, 4(2), 123–143. <https://doi.org/10.1080/10400419109534381>

## IV POSITIONING\* (ca. 750 words)

In his 2009 book “The Thinking Hand” architect Juhani Pallasmaa notes that, “...*architecture provides our most important existential icons by which we can understand both our culture and ourselves*”.<sup>16</sup> Not only icons but even ordinary buildings are depictions of our culture and can help us understand who we are. This according to me is one of the strongest affirmations of the relevance of our profession. Architecture can be a reflection of prevailing culture or it can be critical towards it. But to do so effectively architects have to possess a strong sense of what this culture entails. To develop this notion of zeitgeist critical research is required. As Mr. Mejia Hernandez proclaimed, research cannot be subservient to design. In order to keep our profession relevant this academic approach of design must be pursued. However idealistic and difficult this might seem in everyday architectural practice it is in my opinion the most effective way to keep our profession relevant. The focus of any architectural graduation project, as a test of mastery, therefore has to be to make our knowledge grow.

The first semester of the graduation studio lends itself perfectly for pursuing this goal. The end product will be a research paper about solo dwellers in big cities and the problems this entails for present day society. Dialectics will be used to question the way in which we are increasingly living by ourselves. The Hegelian dialectics teach us that a thesis will go to battle with an antithesis and will achieve victories and defeats against it. Both eventually will get conquered by a third, the synthesis, which Hegel saw as progress. This approach assumes progress as something irrefutably positive, obviously this is not always the case. Also it asks of the dialectician to propose an antithesis, criticizing the existing. This linear method is very focused on the good versus the bad which holds the danger of losing sight of the subtleties through generalization.

Therefore my preference goes out to the Eastern dialectics. Herein the status quo or ‘qi’ contains all contraries that are potentially integrable. The status quo will be looked upon as if looking at an exploded view, re-evaluating the balance of the contraries within the whole of the existing. In this way pursuing the best possible synthesis of the contraries and an enriched ‘qi’. I.e. less emphasis will be laid on the harsh ideal of truth and more emphasis will be laid on the empathetic effort to build a positive integration.

Another reason to choose for this eastern approach is the loss that is intrinsic to the pursuit of truth. What worked for us in the past is likely not to be applicable in the present, and will therefore get discarded. This inapplicability, however, does not make the discarded worthless. The past can teach us valuable lessons. Something that has stimulated me in my pursuit of becoming an architect is the study of the ornament. Due to the modernist movement that idolized the ‘less is more’ slogan ornamentation became past perfect tense. Also the modernist movement broke with all conventions from before the 1900s. Ornamentation roughly until the end of the 19<sup>th</sup> century provided architecture with its character and was therefore seen as the essence of ‘good’ architecture. A century has passed and most knowledge is lost to the architectural profession. Moreover it is currently hardly even mentioned in architectural education. Due to this failing architectural knowledge most buildings that have been erected since are in comparison characterless monolithic blocks. Adapting, updating and interpreting the status quo should therefore always be done in a way which is respectful towards the past.

We can build for the solo dwellers in two extreme ways. The simplest way to ‘solve’ the financial and social isolation problems solo dwellers face in the big city, is to build micro apartments and have them share communal spaces and facilities. In essence this would be to provide them with a disproportionate family home. The other extreme is by continuing what we have done since the post WWII period, providing them with enormous housing blocks with self-sufficient apartments disclosed by an impersonal gallery or corridor. Logically the answer to any given problem most often cannot be found in extremes. On top of that I believe that architecture has most to offer in subtleties and small gestures.

<sup>16</sup> Pallasmaa, J. (2009). *The Thinking Hand: Existential and Embodied Wisdom in Architecture*. Chichester-UK: Wiley.

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