Building Kant: The Architecture of Richard Neutra as an Application of Kantian Ideas

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Mark Landis
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Introduction Chapter

Immanuel Kant was a late 18th century philosopher that has irreversibly impacted modern philosophy, and this thesis intends to bring to light the possibility that his philosophy might have made an impact on architecture through the works of Richard Neutra.

There is evidence to indicate that Neutra was aware of Kant’s works. In addition to a mention by a historian, Neutra mentions an encounter with Kant’s work in his own autobiography Life and Shape. Not only did he read Kant, but he also translated some of Kant’s works. Although he never mentions, in any of his main published written theoretical works, Kant by name, he does sporadically mention more contemporary thinkers, primarily in the field of psychology. This lack of mention of name should not be taken as a sign he could not have been impacted by Kant. For example, Frank Lloyd

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1 Hines, Thomas S. Richard Neutra and the Search for Modern Architecture: A Biography and History. New York: Oxford University Press, 12. Hines states that Neutra “revealed in such different philosophers as Spinoza, Schopenhauer, Emerson, and Bergson, and especially admired Kant’s Critique of Pure Reason”. This gives the thesis more cause to examine both Critique of Pure Reason as well as the Critique of the Power of Judgement, due to the fact that its aesthetic philosophy is more commonly taken in the context of architecture and art in general. However, if the ideas of Neutra and Kant are to be thoroughly compared, both works need to be taken into consideration. Similarly, any work of architecture or art could be analyzed in the context of Kantian aesthetics, but this thesis attempts to find ties between ideas, not merely subjective interpretations of built works with no narrative.

2 Neutra, Richard Joseph. Life and Shape. New York: Appleton-Century-Crofts, 177. “The first person who had given me the affidavit necessary for an entry visa was Professor John Fisher from Goshen College, Indiana, who was working at the Vienna postwar Mission and studying Kant on the side. I provided him with a running unauthentic translation, section by section, to prepare him for the lessons he took with a University of Vienna bigwig in philosophy; at that poverty-stricken time, such private instruction would only cost a dollar or two.” It is not necessary for this thesis to prove that there is a concrete historical connection between Neutra and Kant. The fact that both have written a substantial amount in their respective fields is enough to compare them on many different topics.
Wright, whom Neutra worked under for some time, is hardly ever given any attention in these same published works, but a connection can be instantly made by comparing side by side built works of each respective man, “One can discern the impact of Wright’s Wasmuth Folios in the alternating bands of ribbon windows and stucco in his elevation for Gale House, Oak Park, 1909, or in the interlocking volumes and “free plan” of the Willits Residence, Highland Park, 1901”.\(^3\) In a similar fashion, Kantian influence can be found by directly comparing ideas from Kant’s written works to the ideas found in Neutra’s written works.

Kant rarely discusses architecture in his works, and when he does, it is merely to provide an example to explain a larger idea, yet he has been analyzed to provide possible contemporary influence in the field of architecture. This introductory section will provide an understanding of how Kant is seen in the application of architecture, and this thesis will briefly critique these views in terms of Kant’s actual writings.

There is brief evidence that much more contemporary architects, such as Peter Zumthor\(^4\), know Kant’s work to some extent and regularly apply ideas that follow Kantian thought. Zumthor puts much more emphasis on emotion in his work, not in a flashy way but in a reflective manner. He has this to say about the design process,

> The clear, logical development of a work of architecture depends on rational and objective criteria. When I permit subjective and unconsidered

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\(^4\) Zumthor, Peter, Maureen Oberli-Turner, and Catherine Schelbert. *Thinking Architecture*. Basel: Birkhäuser. Zumthor’s application of phenomenological principles to his design work can also be taken as a reflection of Kantian thought. His use of materials and understanding of the perspective of a person in a space resembles ideas that will be discussed in detail in later chapters.
ideas to intervene in the objective course of the design process, I acknowledge the significance of personal feelings in my work.\(^5\)

He sees the process as primarily rational, but his work is constantly informed and shaped by how he physically and mentally sees a project.\(^6\) This is summarized effectively by Zumthor, “Our perception is visceral, Reason plays a secondary role”\(^7\). He emphasizes the experience of architecture as opposed to the reasoning behind it. This is clearly seen in his description of a restaurant,

> Our first impression of the outside of the restaurant made us hopeful that we had found something better than the other places along the main road of the tourist village. We were not disappointed. Entering through the narrow porch, which as it turned out, was built from the inside behind the main door like a wooden shed, we found ourselves in a large, high-ceilinged, hall-like room, its walls and ceiling lined with dark, matte, gleaming wood: regularly placed frames and panels, wainscoting, cornices, indented joists resting on brackets with ornamental scrolls. The atmosphere of the room seemed dark, even gloomy, until our eyes grew accustomed to the light. The gloom soon gave way to gentleness.\(^8\)

This description does feature architectural elements, but it references these pieces, not in a list of parts, but in a whole of perception. He does not mention the designer’s intent; he only talks about what exists and how it feels to him. This phenomenological approach to designing and experiencing architecture follows closely with Kant’s incorporation of both reason and experience in understanding the world in general.\(^9\)

\(^5\) Ibid., 21.
\(^6\) Ibid. Zumthor believes many other architects are driven by feelings as well, but that they attempt to justify the moves they make in a project through faulty reasoning, instead of recognizing the true driving element behind the design, i.e. the designer.
\(^7\) Ibid., 77.
\(^8\) Ibid., 45.
\(^9\) This will make more sense when one keeps in mind the ideas of Zumthor, as the similarities between Neutra and Kant are taken in the context of sensation, perception, and judgement. It is not necessary to
It is not entirely unexpected that Zumthor would have something to say about Neutra’s work and would describe it in an experiential light,

If I remember rightly, I have seen buildings of classical modernism that celebrate the light and the landscape. Richard Neutra’s houses in California, for example. Shadows do not seem to loom large in these architectural compositions. But brightness does, light and air and the outdoor view, the sensation of living in the landscape, of having the landscape flow into or through the rooms inside – the landscape with all of its light and shadows. Watching the sun set in these houses is a magnificent experience. Later, when the house is no longer illuminated from the outside, it has to generate its own lighting, its own illuminated atmosphere. With human light.10

These are things that Neutra discusses in this various books, however, Zumthor finds it more clear and concise to describe Neutra’s actual built works and how they function, as opposed to quoting his writings. In this way, Zumthor views Neutra’s work through a phenomenological lens, which is appropriate for a thesis that seeks to analyze Neutra in the context of Kant.

This section of the introduction chapter will look at two other contemporary authors as they pertain to Kant and architecture; *Kant and the Philosophy of Architecture* by Paul Guyer and *Beauty, Genius, Epigenesis: The Kantian Origins of Contemporary Architecture* by Sean Keller. The analysis of these texts serves to differentiate the way in which Kant is taken in other works with this thesis. This thesis has a broader and basic claim to Kantian architecture through Neutra.

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10 Ibid., 92.
Beginning with *Kant and the Philosophy of Architecture*, Guyer is looking for a shift that he believes must exist in architecture in the wake of Kant’s publication pertaining to aesthetics,

> Given the indisputable influence of Kant’s aesthetics on the next epoch of the discipline, above all the aesthetics of German idealism in the forty years following the publication of Kant’s *Critique of the Power of Judgement* in 1790, it thus seems natural to look for the shift in the philosophical thinking about architecture within Kant’s aesthetics.  

It is natural to look for a change in architectural thought. As mentioned before Kant had great influence on ideas concerning aesthetics and, he counts architecture as an art, thus falling more directly under ideas pertaining to aesthetics. Kant says,

> The plastic arts, as the first kind of beautiful pictorial arts, include sculpture and architecture. The first is that which presents corporeal concepts of things as they could exist in nature (although, as a beautiful art, with regard to aesthetic purposiveness).

‘Corporeal concepts’ is the essential clause in this description. According to Guyer, the way in which architecture departs from a Vitruvian quest for beauty and utility is through the expression of abstract ideas: “Architecture is thought of as expressing and communicating abstract ideas”. Corporeal concepts are not abstract to Kant; instead, they are concepts linked with an object, with the senses, with a feeling or reaction. It could be the case that Kant’s words have been interpreted loosely pertaining to corporeal

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14 All concepts are to some extent abstract, even if they are linked to physical sensation. Red is ultimately just an idea, and colors are just concepts to describe sensation. However, corporeal concepts are much less abstract than many other types of concepts, and most people, especially in the practical application of architecture, would not regard corporeal concepts as being abstract.
concepts. Certainly all concepts are to some extent abstract and Kant does state, “The mere expression of aesthetic ideas is the chief aim”. Guyer then expresses the idea that the change in architectural thought is mainly due to the assertion by Kant; “(...) that all art involves the expression of aesthetic ideas”. This is technically true, but it is also misleading. Kant does say all art involves aesthetic ideas to some extent, but art, at times, also relies on aesthetic objects. Kant clearly does not mean to say that architecture must focus on communicating abstract ideas but he does indicate architecture has this potential.

Guyer goes on to discuss other philosophers’ ideas pertaining to architecture. These views by other men, who may or may not have been influenced by Kant on this subject, are much clearer in their connection between architecture and the manifestation of abstract ideas. Christian Freiherr von Wolff sets up architecture as, “The relation between the intentions of the architect and the building that results from his or her plans and supervision”. As long as the intention of the architect is to express an abstract idea as opposed to fulfilling the traditional requirements of beauty and utility, this idea pertaining to architecture fits the thesis of Guyer’s article with much more ease than Kantian ideas. This permits the communication of ideas in architecture without the ambiguous hindrance of aesthetic objects in Kant’s aesthetic philosophy. Guyer also

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15 Kant, Critique of the power of judgement, 199.
16 Guyer, Kant and the Philosophy of Architecture, 7.
17 Kant, Critique of the power of judgement, 199-200.
18 Kant tends to acknowledge the role of both the senses and the mind in the final understanding of phenomena or the world in general. It is unlikely that he would make a case for a purely rational understanding of architecture, when architecture has strong ties to experience and empirical evidence.
19 Guyer, Kant and the Philosophy of Architecture, 8.
identifies Arthur Schopenhauer as someone who asserts that ideas can be expressed through an aesthetic work, “In aesthetic experience, the particular thing at one stroke becomes the idea of its species, and the perceiving individual becomes the pure subject of knowing”. In this way, when applied to architecture, an architectural condition, through mere experience, the object becomes a related idea to the perceiving subject. This would inherently make architecture into the practice of conveying ideas presumably according to the intention of the architect. Kant never states objects can become ideas, but rather that aesthetic ideas can be connected with an object or work of art or architecture. He certainly does leave the possibility open for architecture to become the expression of ideas, but it seems that the philosophers that followed Kant had made a more definitive impact on the development of architectural thought by more directly stating ideas pertaining to architecture as opposed to lumping architecture in with art in general.

Furthermore, when determining what architecture should imply through ideas, Kant is much more aligned with Vitruvius, in as far as function is essential. Kant asserts that utility and beauty are aesthetic ideas. It could be that he simply intends to incorporate the ‘normal’ Vitruvian view of architecture into his new view of aesthetics. He may not be setting out to redefine architecture, but instead to merely leave the door open for others to interpret architecture under the ambiguous banner of aesthetic ideas.

Sean Keller takes a different approach to understanding Kant in terms of architecture in *Beauty, Genius, Epigenesis: The Kantian Origins of Contemporary* 

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20Ibid., 11.
21Ibid., 17.
Architecture. Keller essentially believes that contemporary examples of architecture, in which computer generation is the primary design tool, has some basis in Kant’s philosophy.\(^{22}\) This is not to say that Kant predicted the development of computers, let alone their application in contemporary architecture, rather that ideas pertaining to art, and indirectly architecture, might apply to such computer generated works. The ideas primarily discussed are the generation and the nature of art.

Kant expresses what art must be in *Critique of the Power of Judgement*: “In a product of art one must be aware that it is art, and not nature; yet the purposiveness in its form must seem to be as free from all constraint by arbitrary rules as if it were a mere product of nature”.\(^{23}\) Art needs to flow naturally, yet it cannot be completely natural. Keller then takes this idea and asserts that “Genius enables the great artist to create works that do not literally imitate nature, but nonetheless possess the complexity and unity of natural entities”.\(^{24}\) It is easy to imagine this idea at work in a painting of a landscape. The painter cannot literally paint everything in a scene, but does attempt to capture the complexity of nature in his/her interpretation of that scene. A project could look like a product of certain rules that govern its formation. Keller offers Greg Lynn’s Embryologic house concept as an example of this, the systematic manipulation of a spline using a computer. He goes on to say, “Obviously, the contemporary epigenetic turn is driven not by nature directly, but by computational environments that simulate natural


\(^{23}\) Kant, *Critique of the power of judgement*, 185 With this definition, computer generated models could only ever be considered art, not a new nature.

complexity". The computer, in its generational potential, becomes a force of nature in itself and the building is a product. Kant says art must be free from the constraints of arbitrary rules as if it were of nature. However, if a new nature is created through algorithms and other digital and mathematical means, without a firm foundation, this new nature runs the risk of being quite arbitrary.

In addition, the abstraction and possible distortion of a ‘normal’ form of a house in the way Greg Lynn does, with the alteration of abstract geometric forms, may be altogether un-Kantian. Kant says that free beauty is according to only the physical form and taste but architecture is judged in a different sense. “But the beauty of a human being (…) the beauty of a horse, of a building (such as a church, a palace, an arsenal, or garden-house) presuppose a concept of its perfection”. This kind of beauty, i.e. adherent beauty, is reliant on a conception of what that form ought to look like. The form of something such as a church or a house must be based on historical precedent, since no natural precedent can be found. This concept would seem to separate the idea that architecture is an art from that of architecture being an object with defined form. The treatment of a house as a generation of a new computational nature, insofar as it does not resemble a recognizable house, might be beautiful in the realm of art, but is distanced from adherent beauty, of which architecture is a part. Strictly in a Kantian sense, abstract recreations of traditional forms can be art, but not architecture in the fullest sense.

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25 Ibid., 48.
26 If parametric design takes on the characteristics of natural generation of forms it could be considered art. However, if the rules set to generate virtual models do not follow conventional natural inspiration, it can become symbolically a new nature, but never a substitute for nature.
27 Kant, Critique of the power of judgement, 114.
Sean Keller himself states that this Kantian surge in contemporary architecture is not recognized by those who supposedly are benefiting from these ideas. “Historiographically, this revival of Kantian aesthetics is uncanny: it is unconscious, apparently automatic, strangely precise, and yet not identical”.²⁸ It may be that Kant has such a wide and profound influence that his ideas have found a way to permeate contemporary thought on architecture and the design process, or it could be Kant is not responsible and other influences are responsible. The latter interpretation seems more likely due to the contradiction mentioned earlier in this section. The interpretation of Kant’s view of architecture is very loosely based on this work and possibly does not have much more than a theoretical hint at a Kantian tie.

This thesis, in its main body, does not directly address either topic brought to light by either Guyer or Sean Keller. In this sense, the interpretation of Kant in terms of architecture, in this thesis, is in itself unique. This thesis takes a much broader approach, in terms of the span of ideas, stemming from not only *Critique of the Power of Judgement* but also *Critique of Pure Reason*, yet it is also more specific in the scope of the focus, which attempts to find usefulness and purpose in most aspects of the philosophy of Kant for the creation of architecture. There are no sweeping claims to the effect that Kant began any shift in architectural thinking in the past or present; instead, it focuses on the possible influence Kant might have had on one man, Richard Neutra. Specific ideas are explored in relation to larger topics related to sensation, perception, and judgement. In effect, the evidence given in this thesis ranges to a much greater extent

and the aim of the thesis is far more specific, namely to connect the architectural theory of Neutra to the Philosophy of Kant. This thesis will attempt to show a different, philosophical Neutra that can be more directly linked to Kant. The philosophical basis for many of Neutra’s writings has not currently been evaluated. It has been assumed his style and methods have been inherited from influential persons of his time period such as Frank Lloyd Wright and Sigmund Freud. What has been generally over looked, until now, is the possible impact his reading of philosophy had on his thoughts and his design.

It is known that Neutra tends to discuss what is traditionally thought of as psychological topics. What is not brought to light quite as much are the philosophical inclinations that Neutra expresses in his works. Some topics Neutra discusses are exclusively philosophical. Even some sources identify Neutra as a philosopher to some degree. If Neutra did not have such tendencies the comparison of Kantian ideas to the ideas of Neutra might be hard to accept. A person with no philosophical background would not be expected to truly apply Kantian thought in writing and in built projects. It is necessary for this thesis to establish the philosophical potential Neutra possesses.

Thomas Hines says of Neutra’s most prominent written work; “Survival Through Design, Neutra’s most important philosophic treatise”. It is certainly not an arbitrary move to label Survival Through Design as ‘philosophic’. In the second chapter of Survival Through Design, Is Planning Possible? Can Destiny be Designed?, Neutra

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Discusses whether or not a designer actually possess free will in the design process.\textsuperscript{30} “Is drifting really a matter of the past, or is there some speculative philosophy left to justify it? Can we really plan anything, or are we only laboring under an illusion that we can?” \textsuperscript{31}

This is not just an isolated thought; he discusses the same topic in his autobiography.

“This throughout their lives people try planning ahead. I myself have made a living by it. Is planning a must for us? Or is it an illusion?” \textsuperscript{32} The question of free will and its existence is normally a philosophical or theological question and does not often penetrate other fields, let alone in a pragmatic way.

Questioning free will is certainly not the only philosophical topic in which Neutra engages. One such topic that deserves attention, without surprise, in \textit{Survival Through Design}. Section 18 of \textit{Survival Through Design} is particularly interesting in the context of Kant. It is titled \textit{There is no ‘Pure Reason’, or ‘Pure Beauty’}. In this chapter, he describes how reason hardly ever works alone and the limitations of reason as well as the limitations of determining beauty in an object.\textsuperscript{33} While Neutra certainly does not go into extreme depth over four pages these topics seem to overlap curiously with Kant’s \textit{Critique of Pure Reason} and \textit{Critique of the Power of Judgement} in which the former determines the limits of pure reason, and the latter determines the limits of judgements such as beauty. The word choice itself, ‘pure reason’, by Neutra seems strange if it is not considered in the context of Kant’s work \textit{Critique of Pure Reason}.

\textsuperscript{31} Ibid., 8.
\textsuperscript{33} Neutra, \textit{Survival through design}, 129-32.
This thesis is not the first to call Neutra’s tendencies philosophical. Thomas Hines mentions in a conversation with Neutra, “Soon the talk became more densely philosophical”.\(^{34}\) Certainly one man’s description of a conversation is not enough, especially without knowing the content, to make a sound judgement about the nature of Neutra and philosophy. However, Hines also claims that “Neutra brought ‘sanity’ to housing in the United States, [Raphael] Soriano believed. Among all the moderns, he was in certain ways the first great American ‘rationalist’”.\(^{35}\) Does this person mean rationalist in an architectural way, a philosophical way, or both?\(^{36}\) Hines recalls what a critic, Henry Robert Harrison, says of Neutra in an issue of *Pencil Points*, “Behind the simplicity of the plans lies years of deep research; behind the architect a philosopher”.\(^{37}\) It is difficult to misconstrue this meaning as is possible in the past two instances.\(^{38}\)

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\(^{35}\) Ibid., 184.
\(^{36}\) Pure reason is using only the mind to know something about the world. Kant ultimately determines that there is very little one can know apart from experience and the senses, but he does find a number of concepts that are understood apart from experience, space and time for example. Reason is typically coupled with empirical observation to some extent. Structural analysis is reason based on empirical abstraction. A designer makes a column a certain height and thickness, and thinks he knows how it will perform, however, the only way to be absolutely sure is to build it and observe the outcome. Everyone uses reason to some extent, even if he is not a rationalist. There is a significant difference between using reason and being a rationalist. All forms of acquiring knowledge rely on reason to some extent, whether or not each method admits this. Rationalism in philosophy uses reason, the mind, as the primary source of knowledge. Rationalist architecture during Neutra’s time period attempted to solve problems, not just know problems, using reason. Inherently, as architecture is a physical application, no rationalist architect is as pure in the endeavor to use the mind as the sole source of knowledge as a philosopher, despite what some architects of the time might claim. Empirical principles make their way into many different aspects of design, most notably in the means and methods of construction.
\(^{37}\) Ibid., 191.
\(^{38}\) Neutra can be considered as much of a rationalist as Kant. Both understand, as will be explored in the body of this thesis, the role of the mind and the senses. Even though each is not purely a rationalist he spends much more time discussing the mind than the senses. They seem to be skeptical of information the senses provide, while still understanding that the senses provide the base for all else.
This thesis will continue to explore philosophical ideas of Neutra, in relation to Kantian thought, as well as to other, secondary sources of Kantian influence in Neutra’s life.

There are many sources that might have lead Neutra in one direction or another. It is known, to Thomas Hines, Neutra read works by Spinoza, Schopenhauer, Emerson, Bergson, and Nietzsche in addition to Kant. Thomas Hines also mentions, “Young Neutra met and was influenced by Gustav Klimt, Arnold Schonberg, and Sigmund Freud. He was early impressed by the architecture of Otto Wagner, but even more direct influence was the maverick Adolf Loos”. This thesis will only look at Otto Wagner, and Adolf Loos to ascertain possible secondary Kantian influence. Doubtless other names listed above could uncover promising leads, and could lead to further study, but this thesis is assuming architectural influence ought to be addressed and assessed from actual architects and artists before looking for possible secondary Kantian influence from other philosophers.

Otto Wagner clearly had some impact on Neutra. In his autobiography, he expresses his feelings toward Wagner’s works, “In a very short time I was enamored of him, his buildings, and his fights against strong opposition and public ridicule”. Later on Neutra refers to Wagner as a genius. There are similar ideas that could transfer from Kant to Wagner to Neutra but it is unclear whether Wagner himself is under Kantian

39 Ibid., 12.
40 Ibid., 5.
41 Neutra, Life and shape, 66.
42 Ibid., 67.
influence. However, since all three men are philosophically aligned, at least to some extent, historically, the possibility exists.

One of Otto Wagner’s primary goals is to unite Beauty and Function through design. This seems to be directly in line with ideas brought to light by Kant and Neutra, which are discussed at length in chapter three. It is possible to extract this kind of adherence to beauty and function from Otto Wagner’s Postsparkasse of Austria or from the Stadiongasse residence. As stated earlier in this introduction Kant states art, and consequently architecture, ought to express aesthetic ideas. The main ideas he discusses are beauty and utility. As is stated later in the thesis, Neutra is greatly concerned with the perceptions and judgements made by his clients. Judgements of beauty and function are inherently important to him. This echoes the concepts of the agreeable, the good, and the beautiful that Kant discusses. This can be broken into how a building physically feels in terms of the senses, how it functions, and how it emotionally affects a person. Kant does not make each of these concepts exclusive to each other. Ultimately, Wagner’s inclusion of beauty and function in the same project could be guided by Kantian thought.

It seems, on a fundamental level, Otto Wagner, Neutra, and Kant addresses a similar topic and come to similar conclusions however it is not necessary to firmly prove Wagner is using Kantian ideas, but to suggest that Neutra may have other Kantian channels beyond reading Kant’s works for himself.

44 Wagner, Otto Wagner, Gustav Klimt, 69.
45 Gossel, Otto Wagner, 21.
46 This will be discussed in depth in later chapters.
Adolf Loos has an even greater connection to both Neutra and Kant. “In his second year at Technische Hochschule, he enters studio-salon of Adolf Loos. Enjoys social meetings with Loos and his circle (…) and joins Loos on inspection visits of his Steiner and Scheu houses”. Neutra himself says in reflection, “I loved to listen to Loos’s stories, and I still love to think of them”.

Adolf Loos, in addition to Wagner, Neutra, and Kant, has similar ideas pertaining to beauty, “When an object was made so practical that it could not be made any more practical, then they called it beautiful. Subsequent peoples called it beautiful as well, and we to say: these vases are beautiful”. Loos believes an item can be both beautiful and functional at the same time and that each idea, beauty and utility are not mutually exclusive. He discusses the aspects of Greek vases and their practical applications and then exclaims,

The feet, the body, the handles, the size of the mouth dictated only by function? But that would mean that these vases are ultimately just practical! And we always thought they were beautiful! But how could that be? For we have always been taught: practicality excludes beauty.

Beyond even the orientation towards a similar view of beauty and utility, Loos shares a Kantian view of ornament. Both Kant and Loos reject ornament and give very similar examples in expressing their view, “Adolf Loos’s (…) indictment of ornament (which

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47 Drexler, The architecture of Richard Neutra: from international style to California modern, 5.
48 Neutra, Life and shape, 162.
50 Ibid.
recalls quite precisely Kant’s remark about tattooed warriors). Not only do both men criticize ornament, but also they both use the example of the tattooed warriors. It would be difficult to say Loos was not influenced by Kant when he uses his example unless each man has a different reason for rejecting ornament. Sean Keller believes their reason for the rejection of ornament is the same;

Ornament is banned from Kant’s architectural examples not because it would interfere with their literal functioning, but because it is inappropriate to what they are as types. Loos’s thinking reflected this attitude precisely: the secessionists were repellent because they attempted to treat buildings (and furniture and clothing) as something other than what they were.

With the fact that Kant and Loos have similar views on utility and beauty, reject ornament, and use the same example in their writing it is safe to say it is possible that Adolf Loos is a secondary Kantian source to Neutra.

Adolf Loos might have designed in a Kantian manner as well. The Raumplan developed by Loos is effectively is a spatially phenomenological way of thinking about design from the point of view of a subject oriented in time and space. His use of materials also might have contributed to his understanding of a person’s experience in a building. Equally, this understanding of space might not have any direct tie to designing for a particular subject’s experience, but instead focus on a more abstract understanding of space. This understanding of space might have made its way into Neutra’s thinking. The evidence may lie in both the general way each uses the form to dictate the character of

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52 Ibid., 50.
the project and the way each uses, or does not use, materials to connect with the human occupant.

This thesis, by comparing Neutra and Kant, takes a different view from other scholars’ writings on Neutra, as this thesis focuses on casting Neutra against a philosophical background. Many scholars study and write about Neutra. Naturally there are many ways in which Neutra can be interpreted in the context of history, architectural theory, and simply in his built works. A handful of such scholars, historians, and theoreticians will be mentioned with their views of Neutra so that this thesis can differentiate itself and assert its relevance. Dietrich Neumann, Stephen Leet, Sylvia Lavin, Barbara Lamprecht, Arthur Drexler, David Leatherbarrow, and Thomas Hines are briefly analyzed insofar as their work pertaining to Neutra is concerned.

Thomas Hines is quite significant when considering historical documentation of Neutra. Between his summarized categorization of the life of Neutra in the beginning of *The Architecture of Richard Neutra* and his more complete account in *Richard Neutra the Search for Modern Architecture*, one can see people with whom Neutra interacted, various books he read, jobs he did or did not secure, and events of Neutra’s life outside architecture. This stands in contrast with other authors such as Barbara Lamprecht who wrote, *Richard Neutra 1892-1970 Survival Through Design*, or Arthur Drexler who wrote the latter part of *The Architecture of Richard Neutra*. In these works, each respective author takes a historical approach, but only to the built works of Neutra. In more depth than Hines may go about individual projects, Barbara Lamprecht and Arthur
Drexler take projects in chronological order and further elaborate on the client, Neutra’s actions and thoughts, and physical aspects of the project. In Stephen Leet’s book *Richard Neutra’s Miller House* and in Dietrich Neumann’s *Richard Neutra’s Windshield House* the subject remains essentially historical as far as real events are discussed in relation to one Neutra project, although, naturally, by focusing on single buildings, the subject matter extends to include even more details and at times ideological glimpses into the mind of Neutra. These books have been invaluable in supplementing Neutra’s existing writings to the aim of determining physical applications of Neutra’s expressed ideas. Historical accounts have pieced together many figures who have some influence in Neutra; while they do not expressly link Kant to Neutra, they provide names of possible secondary Kantian sources.

More theoretical works about Neutra have also been taken into account. Sylvia Lavin’s *Form Follows Libido: Architecture and Richard Neutra in a Psychoanalytic Culture* looks at the possible influences of Sigmund Freud and his followers essentially analyzing psychological components of Neutra’s design ideology. In this sense, ideas that come to light in Lavin’s work can be further examined in terms of Kantian philosophy. Lavin also tends to bring out the formalism, or the physical arrangement of

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elements, in Neutra’s designs in relation to psychoanalysis.\textsuperscript{56} This tends to lead a person to examine what physically exists in Neutra’s works and how it is used. This differs from the typically phenomenological approach of David Leatherbarrow.

Mentions of Neutra in works by David Leatherbarrow are also taken into consideration. Leatherbarrow does not specifically write about Neutra, but instead writes on certain topics and uses architects such as Neutra as examples. This arrangement provides this thesis with ideas in terms of Neutra, which is very helpful in a thesis seeking to understand theoretical aspects of architecture. In a sense, the analysis of Neutra in terms of an idea is the main aim of this thesis. This thesis focuses on Neutra as his ideas draw parallels to Kant’s ideas and does not seek to, as Leatherbarrow’s works generally do, to use multiple architects as examples of one idea. Each idea of Kant is compared to a similar idea by Neutra and supplemented, when applicable, with built examples of Neutra’s application of these ideas. While supplying content for this thesis Leatherbarrow also offers a similar framework. Leatherbarrow, especially in the context of Neutra, takes physical examples of his work and examines what each architectural move does in relation to the person in the house or project.\textsuperscript{57} While he does describe built

\textsuperscript{56} This is in contrast with a phenomenological approach, which would focus more on the experience created by these elements, as opposed to focusing on the reason and ideas behind the forms.\textsuperscript{57} Leatherbarrow takes a more phenomenological approach to analyzing architecture, in this case, Neutra’s works. He discusses the interaction between the object and the subject in the context of each project.
examples like Lavin would, he places greater emphasis on the result emanating from the forms; on the contrary, Lavin concentrates on the potential ideas behind the forms.58

Between historical accounts of Neutra and his projects, analyzed in succession or as one project in itself, and more theoretical accounts of Neutra’s ideas, there is a strong base provided by many other authors for supplementary information. Primary sources written by Neutra take precedence over secondary sources; however, these other sources can provide much additional data pertaining to specific built projects for use as examples. Interpretation of theoretical aspects of Neutra, at times, adds to the topics discussed in the main body, but at other times become the end products of a different line of thought and are not entirely relevant to this thesis.

The main body of the thesis will begin with an ideological comparison between the ideas of Neutra and Kant concerning the idea of sensation. Chapter one is devoted solely to sensation with occasional allusions to future topics in order to establish that each man has similar starting places for each’s respective works, architectural or philosophical. The second chapter compares the ideas of Neutra and Kant concerning sensory modification made by the mind. In this chapter ideas pertaining to Kant’s categories are more relevant to Neutra’s similar observations on human behavior and perception. The last chapter aims to establish similarities in the ideas of Neutra and Kant on the subject of judgement as a whole and a particular form of judgement such as that of utility and beauty. Ultimately, the thesis reveals striking similarities between the

58 Neutra is interested in the formalism of architecture as well as the phenomenological effects that result from architecture. This becomes clearer after the analysis of sensation, perception, and judgement in the context of Kant.
architectural process of Neutra and the philosophical system of Kant. Sensation is followed by perception and concluded with judgement, due to the fact that in Kant’s philosophy these topics compound themselves naturally in this order. Neutra discusses each of these topics in almost every one of his major works, while Kant is much more systematic in his approach. For the sake of clarity, the systematic approach of Kant is adopted.

In order to connect the ideas of Neutra to Kant, this thesis above all compares primary sources written by these respective men. Each person has a very different occupation, but despite their differences each has produced a significant amount of writing which can be compared. If this thesis were to only compare written philosophy to built works, one would have to first speculate on the ideas behind the building and then compare to written works. With the case of Neutra, he has written a substantial amount pertaining to his design ideology, which can be more accurately and effectively compared to Kant’s philosophy. This thesis will look at built works by Neutra but only as examples of Kantian ideas, not as a source of these ideas.

Kant’s *Critique of Pure Reason* is taken by this thesis as one of the most prominent works of Kant capable of conveying important aspects of Kant’s philosophy. Because of the comment by historian Thomas Hines indicating Neutra read and enjoyed *Critique of Pure Reason* this work by Kant is all the more relevant. *Critique of Pure Reason* is supplemented with *Critique of the Power of Judgement* in order to introduce Kant’s thoughts on aesthetic issues and to provide a wider base from which to compare
the ideas of Neutra and Kant. There is no explicit evidence that Neutra read *Critique of the Power of Judgement*, however, ideas taken from this title by Kant bear resemblance to ideas brought up in Neutra’s various writings.

Primary works by Neutra are the main source for ascertaining his view on key philosophical issues while in the context of design. Works by Neutra such as *Survival Through Design* in 1954, *Life and Human Habitat* in 1956, and *Mystery and Realities of the Site* in 1951 are analyzed to extract ideas pertaining to design in order to be compared to Kant’s philosophical ideas.

Sources beyond those written by each respective man are used and taken into consideration. Historical accounts of Neutra’s life help to determine what, as a young person, he may have been exposed to in reading as well as influential people he had contact with. A few figures in history, which Neutra knew to some extent, may have Kantian regularities which could lead to indirect sources of Kantian influence for Neutra. Such as Adolf Loos, Otto Wagner, etc. Other authors’ interpretations of Neutra’s works and writings are occasionally used to further the primary argument of this thesis. Authors such as David Leatherbarrow and Sylvia Lavin highlight the differences in focus between the findings of this thesis and their works, as well as provide insight that is, at times useful, to this analysis. Writings about Kant in relation to architecture by Sean Keller and Guyer serve to show this thesis is unique in its interpretation of Kant in the context of architecture and that Neutra may design and think in a more original and legitimate Kantian way.
Chapter I

Sensation

Immanuel Kant makes it clear that there is a reciprocal relationship between subject and object in which each impacts the other. The object impresses itself upon the subject, and the subject interprets the object. Because of this relationship, reality becomes both subjective and objective, since an object simply exists, and a subject thinks it knows what exists. If an object could be known apart from the senses, this knowledge would be a more solid foundation on which to build an argument for reality. Sensation is objective; however, sensation is not a complete view of reality. Sensation is not often removed from judgement insofar as thought is concerned in normal situations. However, it needs to be separated in order to analyze practical understanding of reality.

This thesis takes sensation as a prerequisite to any subconscious or conscious judgement. It is possible to make judgement primary, above sensation, as judgement is what is apparent or on the surface. Whether effect or cause is more or less relevant compared to each other depends entirely on the subject. Therefore, a comparison of the ideas of these two men ought to begin with cause and move towards the end effect. In reality, sensation and judgement cannot be removed from one another as they form a continuous whole. However, it is possible to mentally separate each stage into a pseudo-chronological sequence that makes the claim to necessarily exist within reality. Logically, to a certain
extent, perception relies on physical inputs in order to materialize in the mind. This reliance of perception on sensation does not mean perception is sensation. Perception relies on much more than pure sensation, for if this were not the case there would be little disagreement on most areas of discussion.¹

Both Neutra and Kant share this view on sensation. Neutra takes sensation as a base in a psychological process that he must understand to design buildings that are the best fit for his clients. He takes a very scientific approach to understanding buildings and people in relation to design. Conscious understanding of perception sets Neutra apart. Kant takes sensation as a limited view into the real world and as a base for understanding what can be known. Kant justifies the pursuit of science by claiming knowledge that is *a posteriori*, as opposed to *a priori* knowledge, is still legitimate. His ideas set up a base from which psychology takes off, Gestalt being more directly connected.

**Perception Starts with the Senses**

Kant makes it clear that, while perception is not complete in sensation, it relies on an empirical base.

That all our knowledge begins with experience there can be no doubt. For how is it possible that the faculty of cognition should be awakened into exercise otherwise than by means of objects which affect our senses (…) In respect of time, therefore, no knowledge of ours is antecedent to experience but begins with it.²

‘In respect to time’ is important to take into account. Typically, time is treated as a physical reality. Time is perceived as cause and effect. As a conception, time does not necessarily exist in reality, “1. Time is not an empirical conception. (…) 2. Time is a necessary representation, lying at the foundation of all our intuitions. With regard to

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² Ibid, 27.
phenomena in general, we cannot think away time”. Sensation is a part of perception and may be a primary part. However, sensation is not the whole of perception, “But, though all our knowledge begins with experience, it by no means follows that all arises out of experience”. Kant leaves the possibility open that knowledge is compounded with modifications through the faculties of sensation.

Neutra also acknowledges an empirical base to knowledge. In *Mystery and Realities of the Site*, he states “Our awareness of most things vital to us is incomplete (…) Yet-conscious or unaware- our mental and nervous repose and stimulation very much depend on it”. This lack of awareness is not likely a reference to Kant’s idea that sensation is only a fraction of perception, but rather a statement that much escapes our conscious attention. Neutra does say that our mental and physical condition rely on sensation. From a design perspective, he is knowingly treating sensation as a universal base in order to control design. An example of this is how he treats windows and material placement in the Reunion House in Silverlake California. The floor and ceiling patterns with the windows in background, permitting a view of the surrounding nature, set the scene in this project. One almost hardly notices the plain white wall, as there are much more interesting things happening elsewhere in the home.

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3 Ibid., 49.
4 Ibid., 27.
5 Things that may compound themselves with perception will be discussed in later chapters.
7 This is not to say that they do not agree on this subject, as will be presented in later chapters.
In Life and Human Habitat, he states that all knowledge of the world arises from the senses: “Nothing of the exterior world about us would penetrate our interior, our daily universe, had we no senses.”8 In this line, he sets up a duality similar to Kant’s philosophy, in which there is an external, real world, and an internal, subjective, apparent world, or daily universe. These worlds may be the same exact thing, although it is highly unlikely. It is common knowledge that other species have different variations in senses. For example, dogs see primarily in black and white. To dogs, the perception of colors would be unimaginable. If the human range of sensation is considered it would stand to reason there are phenomena beyond our ability to perceive. The inability to perceive

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8 Neutra, Richard Joseph. Life and Human Habitat. Mensch Und Wohnen. Stuttgart: A. Koch, 17. This would apply to any work by anyone according to Neutra. Without the senses, one knows almost nothing. According to Kant, one knows very little about the world and certainly nothing pragmatic without the senses.
such things does not mean they do not exist but likewise the ability to imagine the possibility does not confirm their existence.

Whatever the quantity of sensation that is possessed, whether it is a complete view or a very small representation, it forms an empirical base from which all else can be determined.

**Sensation is Scientific/Measurable**

The question of whether or not the senses can be trusted is a theme in philosophy. Philosophers who follow Plato closely believe that the senses fool the mind by not providing an accurate representation of the world. Objects in the world in which we live are just shadows. These shadows remind us of real forms, but are less real in themselves. The proof is taken from illusions; the apparent bending of objects in water due to refraction, the relativity of movement, etc. Kant seeks to create a practical philosophy to understand how people experience and interact with the world. Neutra strives towards a similar goal through architecture. In order to accomplish either of these goals, sensation must be reliable.

To the average person sensation is reliable as it is presented, with the exception of illusions and occasionally ‘magic’. Kant states that the senses cannot actually fool us; “It is, therefore, quite correct to say that the senses do not err, not because they always judge correctly, but because they do not judge at all”. It is then the mind that misinterprets sensation. Sensation is reliable in itself and can be used to design. Even in the case of

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10 Kant, *The critique of pure reason*, 209.
Illusions the same conditions will always produce the same illusion, however, perception of an illusion can change if experience modifies the perception. The idea of sensation is objective insofar as it is real and repeatable, but how it appears it is subjective.

But, with the exception of space, there is no representation, subjective and referring to something external to us, which could be called objective a priori. For there are no other subjective representations from which we can deduce synthetical propositions a priori, as we can from the intuition of space. (…) for example, as that of sight, of hearing, and of feeling, by means of the sensations of colour, sound, and heat, but which, because they are only sensations and not intuitions, do not of themselves give us the cognition of any object.

Qualities of sensation are not necessarily objective in themselves. They are objective in the sense that the same subject will perceive an object in the same manner each time, assuming no significant change has taken place. There is no guarantee any traditional stimuli such as light and sound can only be perceived in the way in which people perceive them. Even within the normal range of perception stimuli such as light can be seen as well as felt as it transfers from light to heat. This does not mean that the world is fundamentally unknowable. Rather, it means that in order to determine what can be known of the world, the subject must be observed in relation to the environment, built or otherwise. Neutra realizes the complexity of the situation. He, like Kant, is not as interested in the object of sensation, but rather in the perceiver of sensation. “Man is now known to have vastly more sense receptors than the traditional five, all of them together still deliver one combined message of a world”. In *life and Human Habitat* he gives

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11 Illusions or common misinterpretation of sensation can also be used in design, but perhaps not as strongly. People tend to explain illusions in order to discount them for pragmatic reasons.
scale to the number of interactions that happen to create a perception in the brain, “Millions of such sensory activations go on and trigger those in the central nervous system area”. Neutra does not mean there are millions of ‘groups’ of senses which usually reference the typical suspects, i.e. sight, taste, touch, hearing, and smell. He instead realizes the senses form an immense system that work in unison to produce one whole. His view of sensation is much more scientific than the average view. He does refer to colors, textures, and other qualities of sensation in relation to his built works, but he does so with the knowledge that each quality of sensation is produced by the intricate nervous system of each subject. Essentially, sensation produces an objective reality for each subject. The brain, as any other organ, exists as an object in reality, and therefore is subject to the laws governing reality. It will react to the same situation in the same way given conditions have not changed. If one subject perceives ‘red’ one day that same subject will perceive ‘red’ the next day. This applies to every subject who exists in reality. Even if a color such as red is renamed by another subject and consequently carries with it an unfamiliar judgement upon the sensation of the color, this information can be gathered by observing or questioning a subject. The designer can know how and what color will be seen which means the sensation of color can be used. Certainly design could take place even without consistency in sensation; however, it would be far too random to be effective. This consistency in perception, triggered by sensation, creates a situation in

15 This is also assuming a subject does not exert their will upon the situation to react against such an experiment.
16 ‘Red’ is still a judgement upon a sensation and still requires fair judgement upon the situation. Certainly a subject can rename ‘red’ each day, but the truth in the perception of that color will remain whether or not it is called ‘red’.
which planning in design can take place. “We must get over the notion that design deals only with external objects. Once we recognize that a product of upper brain power called design affects ever-greater portions of the innermost human being, related responsibilities begin to loom before us”\textsuperscript{17} External and internal create a continuous whole, that both the object and the subject are needed to understand design. The place where the two meet is sensation. The Reunion House is, again, a good example. The way in which a person physically approaches the home changes the sensation and consequently the feeling of the project. In the first image, the home appears to rise out of the natural setting in which it is rooted. In the second image, the home seems to take on a more horizontal form, which blends more with the surroundings. The left side of the second image is actually the same entrance as the first image, but the character of the space is dramatically different simply because of the difference, not in the object, but in the subject, which changes sensation.

\textbf{Figure 2.} Main entry of the Reunion House in Silverlake Los Angeles. Picture from \textit{Life and Human Habitat} page 65.

\textsuperscript{17} Neutra, \textit{Survival through design}, 318.
Even though sensation may be objective it can lead to subjective responses that even contradict general common sense.\textsuperscript{18}

Impressionists beware: upper brain processes can even cancel out sense impressions. An elaborated conditioned reflex, secondary as it is, has often proved in experiments to be more powerful than a fresh and primary sense stimulus. A dog trained to run, upon hearing a bell signal, for his dish of food in the corner of a room will do so even if there is plainly no food to be seen in that corner! (…) To be sure, the planner or designer has to manipulate sensory stimuli, but he must deal and must learn to deal with upper brain phenomena.\textsuperscript{19}

This once more sets in place the idea that judgement is not in an object, but is, instead, in a subject. The subject must be understood in relation to the object, through the ideas pertaining to sensation in order to be able to design for that subject. Conditioning experiments from the twentieth century have shown reactions are not exclusively paired with stimuli. Certainly, a dog does not instinctually run to a corner when a bell rings, but its behavior can be modified to produce this result. Neutra does not bring this up to

\textsuperscript{18} All responses are essentially subjective.
\textsuperscript{19} Ibid., 246.
discourage designing for the senses, but as a warning that reactions to sensation may change and this change can be known and accounted for.

Neutra acknowledges that design is the manipulation of sensory stimuli, not the manipulation of objects in themselves. The object may or may not be more than its stimuli might suggest, but there are no grounds to create new forces without sensory or practical relevance. Kant specifically addresses this; “We have no right to assume the existence of new powers, not existing in nature”.20 Anything outside of sensation is not relevant to design, worthy of thought, or consideration. There can be forces that are not perceivable that cause perceivable results. Certain wave lengths of light cannot be seen by humans, but they can still cause sunburn and other undesirable effects. Even though these wave lengths cannot be perceived, they cause something that can be perceived and are, therefore, relevant. However, if one were to say that there exists a wavelength of light so small instruments cannot detect it and we could never feel any effect from it, there would be little point to acknowledge its existence. Its existence is not theoretically or practically necessary. If stimuli cannot even be altered or viewed in such a way to make it visible, and therefore making it into actual stimuli, it should not be counted as a force that needs to be designed for.

Neutra discusses similar ideas in Survival Through Design. “The space near the grip of our right hand, or in full view, has a definitely positive, emotionally satisfying character”.21 He says this because what a person can touch or see, seems to be within that

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20 Kant, The critique of pure reason, 434.
21 Neutra, Survival through design, 247.
person’s control. This idea can be seen in his built projects. The easiest way to find this concept applied in design is to look at furniture that he designs in various projects. One such example is in the Sokol House in Silverlake Los Angeles, where he uses the bookshelves as a part of a low wall. Nothing heavily designed is out of reach of the normal human being. Where a person cannot directly control their environment the surface and form are more simple.

The living room of the Dr. Grant Beckstrad House in Palos Verdes California has a very similar condition to the Sokol House. Shelves, cabinets, and pictures are all within arm’s reach and therefore in the realm of control for the occupant. The ceiling plane is flat and does not require much physical engagement. Windows permit a visual connection with the outside world, thereby allowing for a remote feeling of control of the home’s immediate surroundings.
Another example of this is the Benedict and Nancy Freedman House in Palisades California. This living room arrangement responds to the specific arrangement of the project with its own respective views terminated with a pool, yet it also maintains the same treatment of furniture and surface materials in relation to the person in the space. He does not create furniture that does not respond to the human scale. Bookshelves do not extend to the ceiling out of easy reach.

Of course, there is a great amount that can be seen, but that cannot be currently controlled. However, sight certainly is a prerequisite to control in most situations in
which control is possible. More than the realm of actuality, the physical perception of an object or situation does tend to offer a sense of control, whether or not actual control is possible. Neutra also discusses what is not perceivable, “Without control of environment, our actions seem submerged in helplessness and passivity. This is a situation on which we always tend to place a negative emotional accent. The space behind, for example, that space outside of our visual control, has just such a negative character”. 22 This statement exposes his rationalist mentality that a building must be understandable in the mind. He talks about physically perceivable things that are not perceived as having a ‘negative character’. Not that things, that are outside of sensation in the moment, will always be outside this realm, but they are momentarily outside of a sense of control. These objects, at first, become outside the whole of perception but then are added to the situation through our recollection of such situations. In this way exposing or revealing elements can be used to control the perception or feelings of a person in a space. Following rationalist mentality, Neutra certainly prefers exposure over concealment, but he does understand the importance of this idea, “The onlooker perceives the line as if it were actually penetrating that surface and passing through it into some conjectural space beyond. With skill, this can be used and is being used to counteract our feeling of the space-limiting character of a wall”. 23 In the Benedict and Nancy Freedman House Neutra does this by setting up a view along the side of the house that implies depth behind the wall but also implies that the wall runs far into the distance using the vanishing effects of

23 Ibid, 142.
perspective. The wall is terminated in the distance, however, that is hardly noticeable, compared to the combination roof and wall structure that run into the distance.

In that sense what is measurable, such as a line hitting a wall, can be used to create a controlled feeling in the real world. Thomas Hines notes that later in his career, Neutra focuses more on the senses, “He decided by the late forties that he had for the most part mastered the means of producing architecture. Now he must focus more explicitly on the ends- the subtle, elusive effects of building for the senses”.24 Neutra knows what a house must be, and he knows how to physically assemble such a house, but later on, he replaces pure white with more human materials that respond in a better way to the senses. His

Figure 7. Exterior of the Benedict and Nancy Freedman House. Picture from *Life and Human Habitat* page 102.

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architecture previously captured the form of a modern home, but it was textured, when it came to physical sensation. “The synthetic aluminum, concrete and stucco packaging of the thirties gave way more frequently to natural stone and wood, now used in tandem with the harder industrial materials”. Neutra certainly uses materials structurally as physics might demand of any architect, but he goes beyond these requirements to concern himself with the physical interaction between a person and architecture. A building built to stand will stand whether or not a person interacts with it, but a building must also give a programmed set of inputs to a subject in order for a piece to be considered designed as opposed to a haphazard arrangement of parts. Neutra expands his material palette in order to deepen human interaction with his buildings.

Figure 8. Exterior of the Pitcairn House. Picture from inhabit.com

The Pitcairn House by Neutra uses a wider variety of materials than some of his earlier works. Different types of stone, wood, siding, and more materials are used in contrast

25 Ibid.
with the usual plain white motif from other projects. Stone and wood have varying
textures that can be used to control, not only the tactile experience of an inhabitant but
also the visual experience of a subject.\(^{26}\)

\(^{26}\) Many consider sight to be the most important sense in architecture, while others reject this notion and say
all senses are important. Sight is unique in the way that it has the ability to impact a person over very long
distances and can imply other sensuous responses. For example, looking at a stone wall will impart the
feeling of a hard and rough surface without ever touching the wall itself. Sight might be the most important
sense because it implies the inputs of all the other senses.
Between his early and later works, there are many differences in the way he treated surfaces. Just comparing the Lovell Health House exterior to the Pitcairn House reveals this shift.

David Leatherbarrow notes Neutra’s later use of surfaces in his book *Uncommon Grounds*. “The surface levels in Neutra’s buildings contain these surface irregularities; the traces of use saturated into them are these drifts. The ‘rooms’ that result from concentration on the expanded field risk inconspicuous (even unnoticed) definition, but also promise the discovery of their foundation (…)

David Leatherbarrow brings out the idea that Neutra uses these more humanizing textures and materials in a way that responds to human sensibility. These surfaces, in a sense, force themselves into consciousness more readily and are more easily associated with a process or an origin.28

Neutra recognizes the importance of more than just sight in relation to architecture,

Tactile stimuli have always been recognized as important factors in producing responses to the architectural environment. Rough masonry on the front of a fireplace, crude-surfaced, porous softwood, homespun upholstery goods, coarsely woven rugs and blankets- apart from all associated with rusticity- will yield effects profoundly different from smooth, evenly polished surfaces. Material specifications have been perpetually influenced by such data of only vaguely conscious sensory experience. But detailed experimentation is needed before we shall know how certain tactile stimuli (…) affect our total nervous system.29

28 This idea of associating use or the creative process with an object will be discussed in later chapters, but does not belong to pure sensation. The idea is only relevant in this place as an input, not as a judgement at this point in this thesis.
29 Neutra, *Survival through design*, 149.
The reason physical sensation might amount to a ‘vaguely conscious sensory experience’, might be as a result of sensation becoming a base from which all else is created including perception, experience, judgements, etc. It is important to note that Neutra does recognize vast differences between various tactile experiences. The inclination of one passing over rationalist architecture is to assume that the architect has little concern for human interaction based upon the extensive use of smooth surfaces and white stucco. However, Neutra knows what the implications of his design choices are upon people in the context of his buildings, and he does not arbitrarily create forms.

Neutra is concerned, not only with the tactile sensation of pressure and texture, but also with the thermal comfort of people in a space,

One can, from the very start, design a room, its orientation and material selection, in such a manner that temperature losses, irradiation, and air currents are salient parts of the scheme. In this manner one can achieve a differentiation richer and more pleasant than when a design is concerned merely with visual perception and ignores all other potential sensory aims.

By considering physical, objective, and sensible properties of objects discovered empirically through experience, a designer can predict in advance whether a person can be comfortable in terms of heat. Not only with the materials that are selected can this aim be accomplished, but also through the physical location of the building on the site and world as a whole. All of these factors can be sensed and relied upon in design so long as there are not significant misconceptions or illusions to mislead the designer.

30 The idea of rough and smooth will be discussed in later chapters. The idea that the senses do not judge has been brought up previously and will be reiterated in detail in the next section.
31 Neutra, Survival through design, 149.
The senses create a whole picture, from which other alterations and judgements can take place. None of the senses works independently. Juhani Pallasmaa puts words to this idea, “The eyes want to collaborate with the other senses. All the senses, including vision, can be regarded as extensions of the sense of touch; the senses are specializations of the skin. The senses define the interface between the skin and the world”.32 He uses the skin as the whole of sensation, creating an integrated whole for perception. Neutra does not think in terms of the skin explicitly, yet he does regard all of the sense as important to form a whole in experience. He recalls earlier memories from his childhood, “Strange as it may seem, my first impressions of architecture were largely gustatory. I licked the blotter-like wallpaper (…) and the polished brass hardware (…). It must have been then and there I developed an unconscious preference to flawless smooth surfaces”.33 Whether or not these experiences actually affected him this much to form a professional opinion as opposed to a strong feeling is speculation, but these empirical events clearly did impact Neutra. Similarly, “I first experienced the sensation of towering height by looking upward to the carved top of a Victorian dresser. I was more awed and impressed then, later, by the gigantic columns that support the vaults of the cathedral of Milan”.34

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32 Pallasmaa, Juhani. The Eyes of the Skin: Architecture and the Senses. Chichester: Wiley-Academy, 28. This idea corresponds with ideas pertaining to phenomenology, which fits well with the underlying message of Neutra and Kant.
33 Neutra, Survival through design, 25.
34 Ibid.
It cannot be merely a function of proportions that cause him to feel more strongly about the dresser than the cathedral of Milan. Surely as a child compared to the dresser as opposed to an adult compared to the cathedral, the ratio of a child to a dresser is not as drastic as an adult to a cathedral. Sensation can be measured but the experience might only be understood, not measured.

**Sensation is the Base for Perception**

Sensation cannot fully explain perception. With the recently mentioned case of the cathedral of Milan, Neutra is more impressed by a dresser from his childhood. Of course, sensation allowed for these experiences to occur, but they do not explain his reaction to each sensation. Certainly, if this situation is repeated with a different individual, that person might be more impressed with the cathedral as opposed to the dresser, even if the experiment is so precise as to use the same dresser and the person at the same young age. It can be understood why Neutra remembers the dresser and its towering height more vividly than a massive cathedral. Perhaps this is due to the fact that

![Figure 11. Milan Cathedral, showing the towering height of its nave and aisles. Picture from www.sacred-destinations.com](image-url)
this is his ‘first experience with towering height’. It is impossible to say this in reality, since this judgement cannot be extracted from either object. If understanding is limited to sensation alone, no judgements can actually be made, and consequently, design, and any other decisions for that matter, is impossible. As mentioned previously, Kant makes it clear that the senses do not make mistakes, so they can be trusted insofar as they provide information. However, what cannot be trusted completely are the qualities and judgements made upon sensation.\footnote{Kant, \textit{The critique of pure reason}, 209.}

Neutra says about sensation, “For survival, we cannot always depend on our senses. They often fail to report danger in the smallest dose, which sometimes is the most dangerous”.\footnote{Neutra, \textit{Survival through design}, 84.} In this case, he is talking about carcinogenic substances which tend to go unnoticed until it becomes too late for the unfortunate cancer stricken individual. It is not that these substances do not give any warning whatsoever but rather that these substances give warnings that a subject will not interpret correctly. He says earlier; “There had been a sensory adaptation, an accommodation of the skin to the particular poison”.\footnote{Ibid.} Even though the sensory experience may have been too little to force itself into consciousness, it was present, and consequently ignored. This can be said of legitimate claims, but there are also similar claims about the same topic that turn out to be false. One person might claim that a substance causes cancer without knowing for certain, and then, through direct experience or testing, discover that it does, in fact, cause cancer. These judgements are certainly based upon a sensory input, but are abstracted to a point in which reality has

\footnotetext[35]{Kant, \textit{The critique of pure reason}, 209.}
\footnotetext[36]{Neutra, \textit{Survival through design}, 84.}
\footnotetext[37]{Ibid.}
become divorced from the judgement. Kant says about this idea; “For this reason we
cannot, in accordance with the categories, imagine or invent any object or any property of
an object not given, or that may not be given in experience, and employ it in a hypothesis
(…) Thus, we have no right to assume the existence of new powers”. 38 There are two
ways this thought can be taken. The first more relevant interpretation is quite simply that,
in perception, one should not attribute anything outside of the immediate context of the
situation to a situation in order to avoid becoming trapped in situations that may not exist
within reality. The second interpretation might be that, within perception, nothing can be
imagined that has not been perceived, at least in part, and has been combined later on in
the mind. Any such ‘non-sensuous intuition’ should be ignored, unless it produces a
sensuous phenomenon.39 If such a force has no impact whatsoever in terms of the senses,
it is completely irrelevant, and it is pointless to imagine such forces, since it is
impossible. Kant makes it clear that all thoughts are in terms of senses; “Now all intuition
possible to us is sensuous; consequently, our thought of an object by means of a pure
conception of the understanding, can become cognition for us only insofar as this
conception is applied to objects of the senses”.40 All thoughts and all knowledge will be
in terms of the senses. There is no escaping this, and any attempt to do so results in a
denial of reality or the conception of a formless idea that has no bearing in reality. In light
of this idea, Kant and Neutra focus more on what is sensuous as opposed to what is not.

38 Kant, The critique of pure reason, 433-34.
39 An example might be sun burns. We cannot sense ultra-violet and infrared light directly but they do
produce a sensible experience later on, and in that way a non-sensuous force becomes relevant.
40 Kant, The critique of pure reason, 103.
Neutra warns against using one sense more than others and assuming the senses give the subject a complete understanding. Yet we must guard against the notion that only those sense perceptions that are easily and consciously registered really count. One might say that environmental influences are only rarely granted entry to consciousness, but may become particularly pernicious when consciousness is lacking to correct or counteract them. We should therefore be interested in all the non-visual aspects of architectural environment and design even if they are not customarily in the foreground of our awareness.  

Without imagination creating links between forces that do not exist, there is also the problem of consciousness denying sensation access to perception. These sensations, however, should not be ignored. Judgements will be made on the whole of sensation, not on only one part. Every sense needs to be accounted for in design. As previously mentioned, Neutra believes that each sensory receptor is slightly different from the next, that is, there are millions of senses that work all the time to give the subject a sensory impression of the environment. Each of these sensory receptors contributes to a whole of sensation, but even this whole cannot be considered the end of perception, since the mind can break apart the whole or change it altogether.

The senses do provide us with a certain amount of information that is difficult to deny. An object can be seen to have a particular color. Each day that object is seen it appears to remain unchanged. Kant describes how a person can know something before it happens, “Thus, if a man undermined his house, we say, ‘he might know a priori that it would have fallen;’ that is, he needed not to have waited for the experience that it did

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42 For example in music, it would be difficult to construct a ‘good’ song without each part working together to create a ‘good’ whole. A good melody with a bad counter melody detracts from the whole experience.
actually fall”. Kant goes on to explain that this knowledge is not pure a priori but only a priori to the situation insofar as the person knows based upon past sensation. If this can be known without the physical event occurring, sensation must be reliable in some respect as a base. Kant outlines what sensation actually offers: “External sense in its representation can contain only the relation of the object to the subject, but not the essential nature of the object as a thing in itself”. The relation of an object that exists, and the subject that perceives it, make up a basic representation. The essential nature must be a judgement that comes from an abstraction outside of sensation. This ties directly back to carcinogenic substances that Neutra brings to light. He mentions these chemicals precisely, as Kant reiterates, sensation is not enough to navigate through the world.

Even the amount of real knowledge that can truly be attributed to sensation is quite limited. Kant states, “The quality of sensation is in all cases merely empirical, and cannot be represented a priori (for example, colors, taste, etc.)”. All of sensation, then, appears to be made of empirical qualities that cannot actually be known before the actual experience takes place. It could be that inputs, such as light, are only, in a very insignificant way, captured by sight. That is, light could be perceived by other beings in other ways. Perhaps colors only exist for humans. Perhaps what is red for one person is

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43 Kant, The critique of pure reason, 27-8.
44 Ibid., 60.
45 This judgement may be on the truth of an object, in function, in beauty, or even in ultimate or ‘real’ form.
46 Kant, The critique of pure reason, 141.
47 Certainly a person can imagine a sensation based upon a similar experience, and attempt to know a new situation, which certainly is the basis for most planning.
blue for another. But, according to Kant, what we can know is that if something is red for one person and blue for another, the colors will not change for one and not the other. Because this quality is objective to an individual subject, both subjects can call the quality by the same name and be able to communicate this idea despite its unknown differences. Sensation is a personal and physical experience between a part of the world and one person.

Both Neutra and Kant agree that perception must begin with the senses and provide a base for perception as a whole. All we can know is in terms of the senses, and all that exists and does not exist, due to the imagination, is still a product of sensation. Time and space are the primary elements into which all phenomena fit according to Kant, and the primary mediums in which Neutra designs.

Sensation is not only a base for perception, but it is also a reliable and measurable base. Kant recognizes sensation as an objective sliver of reality that cannot be faulted. It is only when a subject makes a judgement upon the qualities or nature of a sensation that mistakes are made. Neutra is fascinated with the way in which the human body works in relation to the environment, built or otherwise. He believes physical sensations can be measured, communicated, and designed for in architecture. He says there are millions of sensory receptors, and that each one works to give the subject a sensory experience from a situation.

Neutra uses this Kantian base to design for his client’s senses. Each house he builds reacts in a slightly different way in material and special qualities. His transition
from focusing on primarily space, to utilizing materials in space, illustrates different ways in which he applies Kantian thought to his design.48 When designing the Windshield House for John Nicholas and Anne Brown custom furniture became a very important topic, “Neutra warned the Browns that an integrated design required ‘infinitely more premeditation and detailing than the usual job which is ‘decorated’ after it is built’”.49 Many Neutra projects feature built-in furniture and the Windshield House is certainly no exception, “An innovative and costly aspect of Windshield’s interior was the quantity of built-in furniture designed by Neutra, based on the detailed questionnaire that the Browns completed with unusual candor”.50 This led to designing spaces specifically for the senses of his clients and their daily routines. Of course, the aesthetic of the project conformed with what Neutra generally produced at the time, however, the function and execution of the home were driven by Neutra’s attempt to design specifically for the clients.

Even though Kant and Neutra embrace the senses as readily as they do, both understand that sensation is not the end result in perception but rather the first step. Without further mental processes sensation can tell nothing of value. It is then important to look at how a person processes sensation and consequently reacts to sensation

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48 This will be made even clearer in the chapter on judgement.
50 Ibid.
Chapter II

Mental System for Perception

Beyond the simple, objective relationships between object and subject in sensation, there are relationships between sensation and perception. These relationships set forward a process by which sensation is transformed into perception by the mind. These relationships might simply be established patterns in experience or, as Immanuel Kant claims, *a priori* categories common to all human minds. Richard Neutra does not mention categories in his writings, but he does bring up the same ideas as those in Kant’s alteration of sensation. Neutra takes these ideas as more universal human characteristics that are essentially the same as Kant’s assumption that these categories apply to all people.¹

These processes may or may not exist in reality. This runs in contrast with sensation, which is limited but does have a base in reality. Many, if not all, of Kant’s categories certainly seem to exist, such as cause and effect, but do not necessarily exist in reality; they merely practically exist. The fact that they practically exist in a mental

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¹ Both men seem to be able to accommodate physical disabilities into their philosophy, however, mental disabilities are not as closely addressed. Kant assumes all people have these categories from the beginning of their life, and Neutra does not attempt to address designing for mentally disabled people, despite his interest in psychology, which addresses various disorders.
system used by all people makes his categories good for potentially understanding how a person will perceive sensation.²

As previously established, sensation is not useful in itself. With this mental system, sensation can become useful, and consequently judgements can be made on the newly formed perception. Sensation exists in reality, while the mental system may not have grounds in reality, but both are needed to form any kind of workable form of perception. Without the mind sensation is formless and without sensation, the mind has nothing to add to or filter.

While this system in the mind consists of many factors, only a few of the more important factors will be discussed in the interest of highlighting major conceptual connections between Neutra and Kant.

The way in which the subject is oriented in physical space, as well as through past experience, is critical for understanding what and how an individual perceives a situation. The way in which events are linked in the mind is also quite relevant for understanding and design. This thesis will also discuss what in sensation is actually admitted to perception, how sensation can disappear in terms of Kant’s philosophy, and how these ideas are applied in Neutra’s writings and built works. This thesis will then illustrate how perception is clearly not thought of as direct sensation by both men, and how these ideas

² Kant, Immanuel, J. M. D. Meiklejohn, and Jim Manis. The Critique of Pure Reason. Hazleton: Pennsylvania State University, 82. This point lists and introduces many of Immanuel Kant’s categories, some of which are discussed in this thesis. The main categories are; quantity, quality, relation, and modality.
are used in philosophy and in architecture. It is the goal of this thesis to bring to light that Neutra’s architectural theory is a practical application of Kant’s philosophy.

Orientation of the Subject

The subject, a person, is also a physical entity. Being that a person physically exists in space and senses physical objects in space, the relationship in space between a person and an object is important for the synthesis of perception. Relationships such as distance, size, shape, and other such static means of comparison, but also motion, acceleration and change in relation to the person perceiving this situation, can impact perception on a fundamental level. Both physical orientation and mental orientation are responsible for perception. Experiences naturally lead a person to have preconceived ideas and feelings towards certain situations or stimuli. Neutra and Kant understand that perception is a play between an object and a person. In chapter one it is established that which can be known of an object through sensation. Now in this section, it is established how sensation is transformed into perception due primarily to the orientation of the subject to the object, according to Neutra and Kant. It has been established in the previous chapter that the senses are fundamental to each person’s philosophy; however, the senses do not form any final picture, and there is a transformation from sensation to perception. This chapter focuses on how the senses can be manipulated to create a desirable perception of a project. The similarity in the viewpoints of these two men on this topic is brought up to advance the main point that Neutra is practically applying Kantian ideas.
Regarding the relationship between the built world and the person in the context of psychology, Neutra states that

A man-designed world has come to surround us on all sides. Patient experimentation with both simplified and ever more involved cases will instruct us about our natural reactions. To sketch a merely tentative method of progressive investigation, let us continue with the orientational response.  

Neutra, who is deeply interested in psychology, essentially says that in the designed world, it is possible to measure responses and determine the reason behind the response, based upon the orientation of the subject.  The orientation of the subject is essential in terms of physical space (as discussed in the chapter on sensation), and also in terms of past experience and mental orientation. Neutra goes on to mention a well-known example in psychology; “More striking results are perhaps obtained by linking the orientational response with the food reflex”. He is, of course, referencing Pavlov’s experiments with dogs. The subject, through past experience, has been oriented towards this response. In this way, Neutra believes that it is important to understand the orientation of the subject he designs for. He does not completely condition clients to accept his designs; rather he subtly guides people for the good of society.

It is in this era of brain-physiological research that the designer, who wields the tools of sensory and cerebral stimulation professionally, can

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4 It has been mentioned in the introduction chapter that Neutra has been exposed to Sigmund Freud and is often analyzed in the context of psychology as opposed to philosophy. Sylvia Lavin is an example of an author who discusses Neutra’s potentially Freudian approach to design.
5 Ibid, 329
6 It is interesting to note Neutra only passingly references Pavlov and does not give him direct credit for his experiment but instead credits this as a well-known technique that Pavlov used before other psychologists.
perhaps be recognized as a perpetually active conditioner of the race and thus acquire responsibility for its survival.\(^7\)

Neutra knows that he has the power to change sensation through manipulation of the physical built environment, but he has only a little power to change the mental orientation of the person for whom he designs. This concept forms the basis for his interest in psychology. He does not implement psychological principles in order to change how people work, but to understand how they work, as they are so that he can design the best solutions possible for each individual client.

Kant brings forward a similar idea in his book *Critique of the Power of Judgement*, “If, however, only the particular is given, for which the universal is to be found, then the power of judgement is merely reflecting”.\(^8\) Essentially, if an object is presented, judgement upon the object is a reflection of past experience or upon reflection of the current situation. Kant defines reflection as such: “Reflection on a given representation precedes the feeling of pleasure (as the determining ground of judgement), then the subjective purposiveness is thought before it is felt”.\(^9\) If this ‘thought’ becomes a subconscious thought, Kant is quite aligned with the ideas and findings of Pavlov, whom Neutra mentions. In the case of animals, it might only be possible to form an instinctive or subconscious conditioned response; however, in humans, a conditioned response may have the potential to be conscious. There are a great many things humans have been conditioned to do in order to invoke seemingly unrelated responses such as using

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\(^7\) Ibid, 244  
\(^9\) Ibid., 27
language to satisfy more basic needs. It could then follow that Pavlov’s theories could be applied to humans with the understanding that humans have the capacity to react to a situation consciously, but also in a conditioned way. Kant’s ideas pertaining to reflection could provide a base to justify Neutra’s ideas about conditioning the race. Pavlov’s discoveries with dogs cannot be immediately applied to humans, due to the simple fact that humans are not physically dogs. Neutra says this himself as he introduces Pavlov’s experiment, “Caution must certainly be exercised in interpretation and concluding from animal experiments on more complex human conditions”. ¹⁰

Certainly the way a subject perceives a situation is not a product of only a mental process. Kant restates this idea;

> All our knowledge, depending on the supposed objective validity of our judgement, is nothing but mere illusion; nor would there be wanting people who would deny and such subjective necessity in respect to themselves, though they must felt it. At all events, we could not dispute with anyone on that which merely depends on the manner in which his subject is organized.¹¹

Kant realizes that judgements must be subjective, and that the perceptions upon which they are built are equally subjective. Subjective perception is built upon objective grounds.¹² Beyond simply sensational objective grounds, there are things that can be understood about how the subject is organized itself. Knowing the subject itself will not unlock any particular information pertaining to perception, just as pure sensation does not

¹¹ Kant, The critique of pure reason, 114
¹² This is to say that there is a larger objective reality that all subjects take a small part and interpret. Subjective reality is based on objective reality but is not the whole of objective reality, however, from the perspective of a subject no matter how much or how little is perceived of the objective reality the subject will always see a whole subjective reality.
give any real information concerning judgement. It is only when an understanding of sensation and the subject, in relation to specific sensation, can an understanding of perception come about. Neutra states, “What we actually are concerned with are human responses”. Human responses to what is designed are important. In order to determine a response, it is necessary to know not only who is responding, but also that to which the person is responding.

It is very important to recognize, as Kant knows, that the one who examines subjects is also a subject.

In all judgements I am the determining subject of that relation which constitutes a judgement. But that the I which thinks, must be considered as in thought always a subject, and as a thing which cannot be a predicate to though, is an apodictic and identical proposition does not signify that I, as an object, am for myself, a self-subsistent being or substance.

Whenever any person, Kant, Neutra, or otherwise, makes a claim upon the nature of the mind, consciousness, or humanity, in general, they do so from the perspective of a subject oriented through experience in a certain way. In that sense, it might not be possible to see clearly an idea or concept without the correct orientation. Any person analyzing the ways in which humanity functions, mentally or otherwise, does so from within humanity, and this insider’s viewpoint adds some amount of legitimacy, but also creates an individualistic bias to the analysis.

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14 Kant, *The critique of pure reason*, 238 Kant says this to comment on Descartes’s Cogito Ergo Sum.
15 This idea vaguely is reminiscent of Plato’s orientation toward the Good in order to understand a form/idea.
Neutra knows it would be impossible to simply design an ideal, or even good house, for a client that he does not know personally or interact with. His solution is rather interesting; “Thus my clients are actually urged politely to design their own life; no one else can really do it for them. The architect, then, has to devote himself wholeheartedly to the housing of this life through all its changes”. Whether or not a person can know themselves is not the question. Who knows what a person feels in a situation is the question. Both Kant and Neutra know that only the subject to which the sensation is happening can understand for certain how they feel. This idea of involving the client to the point in which they ‘design their own life’ is reminiscent of an idea Adolf Loos puts forward in his book *Spoken into the Void*, “Neither the archeologist nor the interior decorator nor the architect nor the painter nor the sculptor should design our homes. Well, who should do it then? The answer is very simple: everyone should be his own decorator”. Neutra does not go to quite that extreme but at the same time, he takes on a new kind of extreme. Neutra takes an approach whereby he invites the client to determine how they want to live and then he designs a physical home that will permit that lifestyle. He does not believe the client is capable of designing their own home. He does not leave a client alone to design their own house (or else they would hardly be considered a client).

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17 Loos, Adolf. *Spoken into the Void: Collected Essays, 1897-1900*. Cambridge, MA: Published for the Graham Foundation for Advanced Studies in the Fine Arts, Chicago, Ill., and the Institute for Architecture and Urban Studies, New York, N.Y., by MIT Press, 23 It has been established the preliminary connection between Loos and Kant in the context of a few main ideas in the introduction chapter containing possible secondary Kantian influences on Richard Neutra.
but encourages them to design their life.\textsuperscript{18} He subsequently devotes himself to creating that life using the knowledge and experience he has acquired in order to make that goal a reality. Neutra uses his own perception, formed by experience, to attempt to design for the perception of others. He tries to understand a subject from the subject’s viewpoint, not designing for himself but designing with an understanding of how a subject perceives reality in a way that is consistent with Kantian ideas.

Kant and Neutra view perception as a balance between subject and object. The designer is a subject and must be aware of this idea at all times. Pure sensation, as well as pure mental reflection without sensation, can tell a person nothing practical about a situation in reality. The relationship between them, physically in space, and mentally through past experience or conditioned responses, determines how a subject will perceive an object. Knowledge of this relationship allows a designer to more adequately create an agreeable solution for a client.

\textbf{Cause and Effect are Inseparable}

Usually in the context of daily life, cause and effect are taken in sequence through time, so that one action can be thought to have caused another. For example, if a person accidentally hits a glass of water causing the water to spill, cause precedes the effect. The cause is the beginning, the effect is the end, and the whole situation is simply understood. However, both Kant and Neutra understand that cause and effect is a much more complicated relationship than what is commonly understood. Cause and effect, according

\textsuperscript{18} Recall back to the mention of the Windshield House in chapter one. Neutra uses a questionnaire to allow his clients to design their own life and then with that information he designs furniture to allow them to live the life they said they wanted.
to Neutra and Kant, is infinitely complex and it is not completely necessary or possible to know the extent in which this relationship exists in objective reality. Ultimately, cause and effect need to be understood for practical applications in reality in order to best design for changing situations.

Kant says this about cause and effect, “All changes take place according to the law of the connection of Cause and Effect”. He effectively means that nothing has the capacity to change without a cause and essentially be a free-standing effect. Each cause cannot spontaneously come into existence, meaning that each cause was an effect in a previous relationship. This makes every cause and effect relationship immensely complicated as a there must be found either a ‘first cause’; otherwise, a cyclical relationship must be established. Neutra brings the topic of cause and effect relationships to light in his own writings,

There appears a millionfold complexity of the cause-and-effect relationship in natural phenomena. It is a meshwork utterly impossible to disentangle, to grasp, or to account for in full. Only fragmentary interpretations have emerged. Human intellect tends to make up a world picture of causes and then, by analogy to its own constructive effort, makes it over into aims and purposes. Purposeful design has been interpreted to underlie a unified world machine.

Cause and effect seem to have an infinite relationship which is impossible to fully understand. Neutra understands that humans tend to take useful, understandable information out of their surroundings. It would be quite fruitless to attempt to understand

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19 Kant, *The critique of pure reason*, 149
20 Neutra, *Survival through design*, 97
cause and effect in its totality because most of it is not relevant to the current situation.\textsuperscript{21}

Even if one can know the whole of cause and effect, the result would not simply change by knowing. Therefore, a person who knows nothing of a situation relinquishes the ability to make controlled changes, but is not subject to new or different rules than a person who is knowledgeable. Kant reiterates this idea;

> When we regard the two propositions- “The world is infinite in quantity,” and “The world is finite in quantity,” as contradictory opposites, we are assuming that the world- the complete series of phenomena- is a thing in itself. For it remains as a permanent quantity, whether I deny the infinite or the finite regress in the series of phenomena. But if we dismiss this assumption- this transcendental illusion- and deny that it is a thing in itself, the contradictory opposition is metamorphosed into a merely dialectical one; and the world, as not existing in itself- independently of the regressive series of my representations- exists in like manner neither as a whole which is infinite nor as a whole which is finite in itself.\textsuperscript{22}

The question of whether something is infinite or finite is useless, either because knowing will not change the nature of the situation in itself, or because of the lack of ability to perceive the whole relationship can be neither infinite or finite at the same time. This could explain why Neutra uses the word ‘millionfold’ as opposed to ‘infinite’ on page 97 of \textit{Survival Through Design}. He chose a finite amount that may as well be infinite due to its large quantity, but at the same time is not infinite. Kant and Neutra view cause and effect as something so complicated that it may be impossible and impractical to establish the entire cause and effect relationship for any one situation. Instead, Neutra generalizes this relationship to an understandable level in order to accomplish something through design.

\textsuperscript{21} By relevant it is meant that not all of cause and effect needs to be changed in order to design for a situation, in most cases only some more apparent parts in that series need to be altered.

\textsuperscript{22} Kant, \textit{The critique of pure reason}, 303
It is also important to note how cause and effect work in relation to each other. Within the conception of time, the cause certainly precedes the effect. This certainly helps a designer understand and control the physical environment according to scientific principles; however, cause and effect are inseparable and effectively happen simultaneously, not independently. There is no possibility, if a scientific principle is well established, that such a cause will only sometimes produce an effect. Kant describes the relationship as integrally connected and void of time,

But at the moment when the effect first arises, it is always simultaneous with the causality of its cause, because, if the cause had but a moment before ceased to be, the effect could not have arisen. Here it must specially remembered that we must consider the order of time but the lapse thereof. The time between the causality of the cause and its immediate effect may entirely vanish, and the cause and effect thus simultaneous, but the relation of the one to the other remains always determinable according to time.  

There is no time expended between the transfer from cause to effect; otherwise, the cause would not have the power to create an effect. Certainly, in many cause and effect situations, time seems to play a large part. This appearance could be due to the neither infinite nor finite nature of cause and effect relationships. In the cause of a chemical reaction, unfathomable numbers of interactions happen between many molecules all in a chaotic, yet ordered, way. Each molecule does not enter into a cause and effect relationship at the same time. Each cause appears to be the same as each other, and the same is true with the effect, giving off the impression the cause and effect relationship ‘takes’ time. Some situations seem to have a delay between a cause and effect relationship. This is likely due to the possibility that there are insensible intermediate

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23 Ibid., 157
‘steps’ between the initial cause and the final desired effect. Kant provides a more simple example of a cause and effect relationship; “If I lay the ball upon the cushion, then the hollow follows upon the before smooth surface; but supposing the cushion has, from some cause or another, a hollow, there does not there upon follow a leaden ball”.\(^{24}\) The ball displaces the cushion at the same time as it moves. Each micro movement of the ball becomes a micro cause and each minor movement of the cushion becomes a minor effect in this relationship. The whole situation seems to take time between cause and effect, but if the ball moves into the cushion, the cushion must move in response. There is no chance this relationship could be broken. Not only this, but Kant makes it clear that the cause creates an effect, yet the effect cannot necessitate a specific cause. A lead ball being placed on a cushion certainly causes an indent in the cushion, but if there is an indent in the cushion it does not necessarily have to have been a lead ball that caused it. Surely an effect is evidence of some cause, but not certainly one specific cause. Neutra knows that in the ‘millionfold complexity of cause and effect’ there cannot be a point in which an effect is without a cause.\(^{25}\) There can be, however, an effect with an unknown cause, and therefore appear to be a free standing effect. In this way, both men understand that cause and effect are inseparably linked. Neutra mentions the investment of a sliding door, “A wide sliding glass door leading into the open is not necessarily a poor investment because it isn’t opened often enough or long enough in a climate of short summers. (…) If the door is thrown open on the first mild, fragrant day of spring it is like a celebration”\(^{26}\). The

\(^{24}\) Ibid.

\(^{25}\) Neutra, \textit{Survival through design}, 97

\(^{26}\) Neutra, \textit{Life and human habitat. Mensch und Wohnen}, 26
opening of the door becomes inseparably linked with the sensation of fresh air, smells, and temperature that follows creating a memorable point in the year worth the expense of the door. Neutra understands that what he designs is a part of the cause and effect relationships that impact each person’s day to day life and cannot be removed from those relationships. A normal door could have a similar cause and effect relationship in as far as new air mixes with the conditioned air in the home, however, the sliding door can be left open with less physical and visual disruption to the space, thereby creating a relationship between outside and inside that is more continuous and whole.

In this environment of neither infinite nor finite cause and effect relationships, a designer must be aware and prepared for many situations, “An architect never designs for a static situation. He works for a dynamic sequence and for life which consists of a series of phases and processes that play though a million of moments over decades”. Neutra essentially is expressing that an architect cannot only design for a cause or for an effect, because they are fundamentally connected. An architect should not design for just one cause and effect relationship, but should consider the life of the project, and the life of the occupants. Again he uses ‘million’ to describe the immense amount of moments (cause and effect relationships). An understanding that cause and effect are ongoing makes designing a static environment rather irresponsible in the context of humanity. Especially in the context of people, who change in themselves, also have to react to change in the environment. If the built environment cannot deal with cause and effect relationships as

27 Ibid., 7
they occur, the occupant will be under more stress than usual to cope with the current situation.

For example, during certain points in the day, the sun will be at an uncomfortable level in the sky for a person near a window. The sun will cause the occupant to be uncomfortable. If the building responds in advance, through design, by carefully orienting windows to avoid the situation altogether, or by incorporating shading devices, the sun will still be a cause but the effect will not be adverse to the occupants inside. Neutra often incorporates shading devices in with the form of the roof or a part of the structure of the wall. In the case of the Bailey House, he extends the roof to create more livable conditions indoors as well as outside the home.

In the context of this situation Neutra insists that a designer should not prepare for just a static situation. In the case of dealing with unwanted sunlight, a designer cannot just

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28 Neutra, *Mystery and realities of the site*, 62
consider one time of the day or even one day of the year, but instead must consider all
days and times to create a window that works well in relation to the changing position of
the sun given the knowledge of how an occupant will react. Certainly it does not rely
only on the quantity of sunlight, but also on the lifestyle of the occupant. Neutra and Kant
both agree that judgement on a situation such as this relies on the objective physical
sensation, the amount of light from the sun, and the orientation of the subject. In order to
adequately determine and guide the cause and effect relationship, both of these elements
must be understood. Neutra often falls back on new psychological information coming
forward in his time, while Kant sets up the groundwork for psychology to become a
serious area of study. Neutra essentially applies the knowledge provided by Kant to come
to the conclusion that no situation is certain or unchanging. This causes Neutra to put
much effort to understand his client into each of his projects.

Neutra and Kant acknowledge the complex nature of cause and effect
relationships. Kant discusses the complexities of cause and effect to avoid faulty
knowledge being acquired from such situations. Neutra realizes that the full extent of a
cause and effect relationship cannot be known, but this does not stop people from
naturally creating understandable cause and effect relationships for themselves.
Understanding cause and effect, practically, can help a designer make decisions but
understanding the complex nature of cause and effect can allow the designer to not be
surprised when a supposed cause and effect relationship is broken. Kant understands
cause and effect as an infinitely complex relationship, Neutra takes that understanding
and applies it to his design process.
Change is all that can be Known

Kant and Neutra have insights on the nature of change as well. Inducing change can cause someone to take notice of a designed element. Similarly, making an object uniform, and consequently devoid of change, can cause it to disappear from a person’s consciousness. These ideas become quite powerful when one recognizes, as Kant and Neutra do, that all is change and change is measured in time. Neutra’s understanding of change goes further than an architect’s—and perhaps even a scientist’s—typical understanding. Neutra’s view of change quite closely resembles Kant’s ideas pertaining to change.

Neutra and Kant both see the world as changing, not a place for destroying and creating. New things can only be created out of old things and old things can only be destroyed if they become new things. Everything merely changes.

Change makes up every interaction. In the context of the previous section, cause and effect is essentially: change. One thing causes another to change producing an effect. If there was no change, the cause would be fruitless, and the effect would be non-existent. Kant states that all is essentially change; “Our apprehension of the manifold in a phenomenon is always successive, is consequently always changing”.\(^{29}\) One cannot rightly assume that anything can just be purely created or completely destroyed. All things in experience are simply changed from one thing to another and never standing still. At times, change may not be enough for a subject to perceive, but change is always occurring. Even on a very small scale, when a subject can smell a food, this means part of

\(^{29}\) Kant, *The critique of pure reason*, 146
the food is in the air and the food is actually changing, losing mass, to this process.

Certainly this process does not happen to an easily measurable extent but it is happening. Many changes go by undetected, either because humans do not possess the capability to detect them, humans can barely detect them and other stimuli distract one’s attention, or collectively humans have learned or have been conditioned to realize that a certain change has no meaningful effect in practical life. Neutra also articulates the idea that all is change in relation to his theoretical project Rush City Reformed, “We must never forget that through our senses we actually experience only the accelerations, retardations, and stoppages”.

In this particular passage from *Survival Through Design*, Neutra is referring to his treatment of the vehicular traffic in Rush City Reformed. Acceleration, is the change in a consistent motion, and retardation, a stoppage is the sudden ending of motion. Within the same context of traffic, one can easily relate to the difficulty of staying conscious while driving on an interstate highway while operating in cruise control mode. The lines pass by at the same speed, all the trees and fields start to look the same, and one begins to lose a conscious conception of where one is due to the lack of significant change.

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30 Neutra, *Survival through design*, 362
The idea behind this theoretical project was to create a city in which moving from one place to another does not become a negative experience. Neutra does not try to do what many people would believe to be the solution, which would be to make mile after mile of interesting a new sights to see so that no one would ever become bored, instead he attempts to streamline traffic so that it does not take long to arrive at the destination, and it feels like even less time to get there. Similar to the lack of change on a highway, his arrangement of the city creates an environment in which it is difficult to keep track of time while traveling due to the high amount of repetition. This city is designed to allow a person to get from one place to another without frequent stops, both physical and mental. For better or for worse, Rush City Reformed does not have an overwhelming amount of personal landmarks that make it easy to orient oneself. This makes it more streamlined as far as movement is concerned, since there is only the current location and the destination in the mind of the person as opposed to here and multiple sub destinations.
Even the buildings that make up Rush City Reformed contribute to this mentality. The buildings recede into the distance with a high degree of repetition in façade form and fenestration. The building is not meant to stand out and call attention to itself but to be a part of the city as a whole. When Neutra designs a home he does so in the context of an individual person but when he designs a larger project, such as Rush City Reformed, he does so in the context of humankind and how they will react in their daily lives.

Neutra is interested in all types of change, not just movement. For Neutra, nature is a major source of change that is acceptable to people. While nature does not move, it provides changes in form, color, and type. Seasons change and different plants grow at different times and take on different colors and shapes. Certain animals migrate during the year and even the daily weather can determine the level and type of activity in nature. Neutra sees nature as being the longest established type of change that all people
generally look favorably upon. Logically, he seeks to place his projects within a strong natural context.

The Tremaine House in Montecito California, is indicative of what Neutra attempts to do with nature, through landscaping, with his houses. He surrounds his works with many different types of plants that all change and interact differently to create a dynamic scene that is not chaotic, stressful, or negative in most ways. In this particular case, the house does not seem to be the focus. Instead, nature seems to bury the home itself; the house exists in nature.

Neutra makes a conscious effort to connect his projects with nature more than by simply surrounding his works with plants; he often purposefully designs the photographs

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31 This is at least true amongst Neutra’s typical client base.
of his buildings so that nature literally comes into the home. The Earl Brod House in Arcadia California is a good example of this.

Figure 16. Earl Brod House in Arcadia California. Picture from *Life and Human Habitat* page 92.

In this project, he makes a point to, at least in the picture, have points where nature goes beyond the window plane. There are stray branches placed strategically on the floor and on the table in order to use nature in an artistic manner. He uses nature as a focal point with a positive sense of change.

Neutra says that all a person can perceive is change and Kant says that all that exists is change. Kant and Neutra agree that it is how change occurs, through science, and how a person will perceive a change, through psychology, that is important. For Kant, this is important to understanding how a person understands the world around him or her.
for knowledge sake, and for Neutra this is important to practically design for a human client.

Kant discusses how an object of the senses can disappear in perception. Neutra takes these ideas and uses them in his design philosophy, essentially applying Kant’s ideas practically in design. Kant discusses this disappearing effect in perception;

> Every sensation has a degree or quantity by which it can fill time, that is to say, the internal sense in respect of the representation of an object, more or less, until it vanishes into nothing (= 0 = negation). Thus there is a relation from the former to the latter, which makes every reality representable to us as a quantum (…)³²

Kant introduces the idea that perception of sensation does not remain constant over time, but in fact diminishes, given that there is no change to this sensation.³³ Not only does static sensation eventually disappear, but at any given point perception is actually between two points: whole sensation and lack of sensation.

> Apprehension, by means of sensation alone, fills only one moment, that is, if I do not take into consideration a succession of many sensations. (…) Now every sensation is capable of a diminution, so that it can decrease, and thus gradually disappear. Therefore, between reality in a phenomenon and negation, there exists a continuous concatenation of many possible intermediate sensations (…) every sensation, consequently every reality in phenomena, however small it may be, has a degree, that is, an intensive quantity, which may always be lessened, and between reality and negation there exists a continuous connection of possible realities, and possible smaller perceptions. Every colour- for example, red- has a degree, which, be it ever so small, is never the smallest.³⁴

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³² Kant, *The critique of pure reason*, 123
³³ This idea runs in direct contrast with other ideas that perhaps nothing/negation is the natural resting point of all perception and the only way we perceive anything at all is by the mind making something of nothing.
³⁴ Kant, *The critique of pure reason*, 137-38
Kant uses the word apprehension as a more complete, all inclusive, form of perception. He makes clear that each perception is a momentary or temporary event. As stated before, sensation has the capacity to diminish over time in perception. Between the transfer of the whole sensation to the absence of sensation there exists a continuous range of intermediate sensations. Kant states that every sensation has an inherent value which cannot be increased outside of sensation, and this value will decrease so long as the sensation in constant. He also says that this decrease in sensation will not ultimately lead to the complete disappearance of a sensation, but that the sensation can be reduced to the point that it no longer becomes noticeable. He gives an example of color. The color does not change, in itself, but the perception of the color can change. This knowledge gives the designer an incredible opportunity to design a static structure for organic moments.\textsuperscript{35}

A designer can make objects appear in perception and also disappear in perception. Neutra realizes the potential of this though in the design of structures, “If (the designer) truly wants a design feature to stand out as the essential one, he must make sure that any and all stimuli and responses possibly militating against it are not just repressed temporarily but successfully silenced once and for all”.\textsuperscript{36} Neutra, in this case, sees a function of negation to be the isolation of an element that needs to be forced into the conscious perception of a subject. There could also be situations in which an element detracts from the form of the whole and needs to be removed from perception, but not removed physically due to its functional necessity. An example might be a bathroom.

\textsuperscript{35} Recall back to the quote from \textit{Life and Human Habitat} page 7 when Richard Neutra says an architect must not design for a static situation, not that an architect must somehow physically animate his structure.

\textsuperscript{36} Neutra, \textit{Survival through design}, 230
bathroom, in a home, cannot be given the same prominence as, perhaps, a living room. A bathroom might be even more important than a living room, strictly speaking about the traditional view of function, but one would be hard pressed to find an individual who would want a bathroom to be given the same visibility and accessibility as a living room. The bathroom needs to disappear from perception of the whole of the house. In this way, the bathroom can only be brought into consciousness by the free will of a person to recall past information and thus relaying this information to the concerned party. In Neutra’s book *Life and Human Habitat* he discusses this issue of the bathroom. How to balance the function of a bathroom with the necessary sensory requirements and the private nature of a bathroom can be quite challenging and costly, “One has to remember, furthermore, that per square foot, the bathroom represents not only the most precious, but also costly of all American rooms, and that keeping it tidy and in good condition requires much more time and effort”.37 He does not say this to suggest that the function is necessarily at odds with the aesthetic of a bathroom, but instead he says this to point out that a bathroom has a unique combination of beauty and utility. He clarifies later on, “This is not meant to be a ‘utilitarian’ remark. ‘Utility’ and ‘beauty’, as we have stated elsewhere, the esthetic and the operative, are always inseparable in our innermost nature as well as in the nature which surrounds us”.38 Utility and beauty are in all things and in all situations. It depends on the designer to allow one or both to become visible in a project or object.

37 Neutra, *Life and human habitat. Mensch und Wohnen*, 265
38 Ibid.
Neutra does begin to distinguish between where change is needed and where change must be removed for the good of the human subject. This is very apparent in Neutra’s discussion of colors in relation to the human being; “Static coloration can never assure enduring psychological satisfaction; it is unnatural”. Colors that do not change, according to Neutra, are not satisfactory and are not natural. This judgement on the satisfaction of static colors may or may not be founded, but static colors certainly are not natural.

When autumn comes, the natural vistas change their color breathtakingly, or pale out, as the chlorophyll decomposes more quickly than do the rest of the vegetative pigments. Every year the spreading cover of winter snow emphasizes the few remaining patches of color or darkness in the landscape before our window. This rock or that red barn stands out quite differently now than it did only two days ago, before the snow came, or two months ago, when the aspens were such a bright yellow. It is the same landscape but again not the same; sameness here is a misnomer. The seasons certainly cause a great amount of change over the natural landscape on an annual basis. Each year, seasons essentially make the same changes, but with slight variation between years. It is not a question of whether, in reality, static colors or changing colors are ‘better’, but begs the question, what are human beings accustomed to? Humanity has existed in nature or at least alongside nature for as long as any history can recall. Humanity has never truly escaped nature entirely; even in the largest cities, there is still an inside and an outside. The weather changes, in some places snow falls, in most cities there are parks which serve as small drops of nature in a man-made landscape. Neutra’s assumption that static colors are undesirable is justified in this context. Neutra,

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39 Neutra, *Survival through design*, 184
40 Ibid.
contrastingly, has this to say about most built interiors: “In contrast to these color dynamics of the natural scene our interiors are hopelessly static. (…) And a lack of change is sufficient to explain our resultant color fatigue, a fatigue that hardly ever occurs in natural surroundings”. He points out the natural changes to the interior of a building are usually undesirable, such as paint peeling or chipping off, making the place look dirty, unused, or broken. Neutra is not without ideas to solve this problem. He understands that color is as much reliant on the physical object as it is on the light which makes it possible to view the object to begin with. A designer can choose to limit light in order to create a movement of light across a surface or perhaps even change the qualities of light; “Modern lighting technique offers tools to serve us physiologically much better than we choose to let it. Thus future interior design may spare us the ordeal of exposure to monotonously sustained color effects”. It is possible to use artificial lights to change colors by using light other than white light. In modern times lighting has certainly made additional advances, as should be expected, and now there exist lights that can change between colors. Even more than changing colors through the quality of light, artificial lights present the choice of light or darkness, which the sun does not easily afford. It is true that windows can have devices to block sunlight during the day, but at night, a window cannot command the sun to shine. Natural light is a very passive source of light. Artificial lights have the capacity to add a dynamic that the sun cannot replicate on its own accord, which may help a hopelessly static interior become dynamic on an acceptable level comparable to nature. In many Neutra projects, it is easy to see that he is

41 Ibid.
42 Ibid., 185
considering these ideas as opposed to merely discussing them in his written works. Many homes designed by Neutra have large windows with varying shading devices such as the louvers on the Desert House which create a play of light which produces change through the day. His extensive use of white surfaces creates a blank canvas for light to color the walls as the sun moves. During times of day with no sun, the consistent colors allow the interiors to slowly disappear from conscious thought and direction to be focused elsewhere. His large windows also provide a connection with carefully arranged natural scenes that can provide the change an occupant might require if the interior fails to please. In Heyford House in Los Angeles California, the focus on natural scenes can be seen very clearly. The home is small and completely surrounded by nature. Although the image is black and white, nature takes precedent in the foreground and the background. The actual built project takes the middle ground among a variety of different types of plants.
Even in plan, nature seems to completely overwhelm the home. It is clear that this is Neutra’s intention by the way his own drawings indicate this nature/home relationship. It is almost difficult to see the home with all of the plants drawn around it. Even the line hierarchy and texture used to represent vegetation in the drawing emphasizes the plants more than anything else.

Figure 17. Exterior of the Heyford House in Los Angeles, California. Picture from Life and Human Habitat page.
Kant establishes the idea that stimuli can disappear over time and be brought back into awareness through change. Neutra adopts this idea and applies it to physical forms, but also to the use of light and color in a structure. Once more, it is essentially a practical application of Kantian ideas in architecture.

Neutra and Kant have determined that change is time. Therefore, Neutra realizes that it is important not only to design so that a person moving around, changing from space to space, is agreeable but also so that the same exact space will change over time in an agreeable way.

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43 Kant, *The critique of pure reason*, 123
Time, and consequently change, is essential to understanding color fatigue.

Neutra reinforces this point;

Colors should set each other off refreshingly, not only in space, side by side, but also in time, one stimulation following another. (…) Color perception, like form perception, takes place in the space-time continuum. To treat it in relation to space alone is in itself a defective approach.44

Time is change itself, and is necessary for the understanding of the physical change the colors or materials will undergo, but also how the subject’s view of the same object will change in terms of negation. Time is also essential for understanding in Kant’s philosophy, “Thus our conception of time explains the possibility of so much synthetical knowledge a priori, as exhibited in the general doctrine of motion (…) Time is not something which subsists of itself, or which inheres in things as an objective determination”.45 Time helps to explain change because time is change. Time is measured in the change of one thing to another, a movement of an arm of a clock, or the movement of a shadow along the ground. Time cannot be separated from these objects but does not rest in these objects. Time without objects cannot be time, as nothing can change, timelessness. An a priori conception of time must be responsible for human perception along with an a priori conception of space, which like time, cannot be separated from perception lest the perception falls apart, but cannot be inherently extracted from a situation.

A person cannot experience change without time, as time is change. Kant knows that time is simply change and that change makes up all interactions. Neutra takes that

44 Neutra, *Survival through design*, 185
45 Kant, *The critique of pure reason*, 50
knowledge into his designs when considering how a person will perceive a project over time.

Kant insists that change is all that can be perceived, and that without change, reality tends to vanish through the process of negation. Time is the mental medium through which change can be understood in perception. Neutra also makes similar assertions, but goes further and attempts to make these ideas work to satisfy the needs of actual people, thus bringing to life similar ideas that Kant puts forward.

**Perception is not Direct Sensation**

This chapter up to this point has discussed a few ways in which sensation is altered to become perception. This section will discuss further and focus more directly on the differences and alteration of sensation to perception. Ideas about how past experience and relations between two objects can alter pure objective sensation into a subjective perception of reality, and how Neutra uses these ideas in his projects, will be further developed. Ideas from Kant’s philosophy that may have led to the creation of Gestalt will be discussed as well as Neutra’s reliance on Gestalt in his written and built works.

Perception can be thought of as a sum of parts. For Kant, it is not that these parts simply add to create a whole, but they are joined together to create a completely new thing in perception. This is very similar to the idea of Gestalt, in which perception is a whole made up of parts, and these parts do not directly equal the whole. Kant laid the early groundwork for Gestalt to be formed. Neutra admittedly uses Gestalt principles on many occasions. Barbara Lamprecht mentions; “Gestalt theories of perception, of Dark
vs. light, of void vs. solid, of figure vs. ground. These provided Neutra with the tools to effect illusions of spaciousness in small structures.46 This is not just simply an observation on Neutra’s work after his death. He took these ideas very seriously.

Sometimes this leads to disagreements,

Neutra regularly applied Gestalt theories to alter special perceptions, but young Bailey didn’t know that when he innocently asked if the closet interiors could be painted white, to see things better. “Mr. Bailey,” Neutra sternly replied, “the closets must recede. If you paint them white, I will remove my name from the project.47

Neutra thinks of all perception as a whole with identifiable parts. There cannot be anything other than the whole, but it is important to not heavily generalize the nature of a whole, leaving out the parts in consideration in the context of design. It could be through Gestalt ideas that Neutra is further exposed to Kantian thought.

Kant reiterates the idea that an object in perception is not simply given, but is a collection of multiple parts;

Consequently, even the perception of an object as phenomenon is possible only through the same synthetical unity of the manifold of the given sensuous intuition, through which the unity of the composition of the homogenous manifold in the conception of a quantity is cogitated; that is to say, all phenomena are quantities, and extensive quantities, because as intuitions in space or time they must be represented by means of the same synthesis through which space and time themselves are determined.48

Phenomena are quantities. Kant essentially sets up the idea that there are parts in a whole of perception. Not only that there are parts, but also that these parts precede the conception of a whole, “An extensive quantity I call that wherein the representation of

47 Ibid., 69
48 Kant, The critique of pure reason, 134
the parts renders possible (and therefore necessarily antecedes) the representation of the whole”. 49 This not to say the parts are more important than the whole. The whole is perception and parts can only be isolated for examination in the whole, but cannot be removed from the whole. The parts are the building blocks available to the designer in order to create a desirable whole for the client. Neutra realizes that the inherent danger in only relying on generalized views of the whole, “Irradiated and generalized cortical responses alone, as well as dominant ones which absorb all others, would, in the long run, be sure to lack the character of survival aids; in fact, they may harbor danger on many occasions”. 50 Neutra points out that designers have, in the past and will continue (and they certainly do continue) used exceedingly strong features in a composition to generally to illicit a reaction from the people who interact with their works. Knowing that the parts create a whole perception, it does not make sense to program each part to the same end result in such a generalized and overwhelming manner. Each part of an object in perception must be taken into consideration in terms of a human who might encounter such object. Neutra states, “What we frequently need is to-the-point precision and specificity. Therefore we are also endowed with another ‘mechanism,’ an elastic device to focus our responses sharply”. 51 Specific design solutions are required to focus the responses of the subject or the client. An example of where a general design may lead a project astray might be a home designed to express a strong overwhelming sense of movement. Certainly movement is a critical part of almost any project. If one cannot

49 Ibid.
50 Neutra, Survival through design, 211
51 Ibid.
move through a project at all, it is hardly a building for humanity. Even so, if movement is simply awkward or difficult, although completely possible, the question of necessity must be asked. Movement is necessary, yet it does not fulfill all requirements needed for a home for a person. Therefore, designing to express movement, in totality, works against a sensible design. Even if the opposite of movement is considered, stopping, resting, or lingering, these elements can find necessity in a home. Bedrooms are not intermediate spaces to be passed through to another destination. The idea of only movement hardly affords the idea of destination. The idea of being drawn in and ejected at the termination of movement is more applicable. Living rooms can have an element of movement, perhaps as a hub to other parts of the house or as an intermediate space to access neighboring rooms, but living rooms ought to also include spaces to linger or rest. If a living room does not promote the idea of staying but only of moving it becomes more of an awkward hallway as opposed to a full realization of the function of the space.

Figure 19. Floor plan of the second level of the Lovell Health House. Picture from www.archdaily.com
For example, the bedrooms in the Lovell Health House are on the second floor and do not interrupt any continuity of public space as can be seen in the floor plan.

In the main, public, level of the house, the living area is interconnected in a much more continuous way than seen in the previous floor plan of the second floor. David Leatherbarrow sums this idea up well while discussing Kant:

(…) For Kant the regulative principle, the functional or purposive nature of the system was key. (…) Later writers on art and architecture argued similarly about works of artifice. The functioning, performance, or operations of a building were seen to depend on the coordination and internal cooperation of its component parts.\(^{52}\)

The function of a building depends on how the designer programs his or her project. The individual details ranging from material choice down to the smallest measurement matter in the sense that each part becomes, and shapes, the whole of perception in a way that

may, or may not, align with the intended function of a project. Neutra knows his works produce responses in his clients, “I will remember how Professor Freud use to smile at my statement that housing architecture, the daily and nightly impact of physical surroundings decisively raises conditioned responses, as the reflexologist would put it”.\(^53\) Again, it is not Neutra’s direct intention to completely reprogram a human with his projects, but he does know it is necessary to understand the responses already instilled into humans, through nature, society, or otherwise in order to adequately design for his client.

This is not to say that the sum of all the parts, within the realm of perception, necessarily equals a whole in perception. Perception is a combination of the physical object and a subject. Kant illustrates this idea;

> But the form of this intuition, which lies in the original constitution of the mind, determines, in the representation of time, the manner in which the manifold representations are to combine themselves in the mind; since the subject intuits itself, not as it would represent itself immediately and spontaneously, but according to the manner in which the mind is internally affected, consequently, as it appears, and not as it is.\(^54\)

This would indicate that all perception would simply be an illusion, if all that can be known is how an object appears and not how it is due to the condition of the mind. The condition of the mind is to join with an object in perception outside of information, thus changing reality into appearances. The conclusion that perception is only an illusion would be entirely false. Kant clarifies,

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\(^{53}\) Neutra, *Life and human habitat. Mensch und Wohnen*, 20

\(^{54}\) Kant, *The critique of pure reason*, 61
When we say that the intuition of external objects, and also the self-intuition of the subject, represent both, object and subject, in space and time, as they affect our senses, that is, as they appear- this is by no means equivalent to asserting that these objects are mere illusory appearances.\textsuperscript{55}

Because these appearances are an interaction of an objective object and a subjective subject, appearances have a base in which to claim situational universality. Reality is modified in understandable ways by the subject. Each subject is different to some degree, but each subject has the same objective base in order to form an appearance. There is little chance that a subject will not modify an object in perception. Parts added in perception will not be equal to the whole. The way in which parts are added to something other than reality (appearance) can be understood to an extent. This idea could cause unintended consequences for a designer who is unaware and believes their perception is reality and there is no possibility for deviation. This is certainly not the case for Neutra, who knows he can use ideas about how the human mind works to create effects that might not exist in reality in his projects. Neutra discusses a way to create limitless space;

\begin{quote}
The onlooker perceives the line as if it were actually penetrating that surface and passing through it into some conjectural space beyond. With Skill, this can be used and is being used to counteract our feeling of the space-limiting character of a wall. It is a device of designing that can make a wall into a mere screen by producing something like a subconscious supposition of void space behind a thin surface. Such a design can be called suggestive; it is suggestive of things that are not really sensed.\textsuperscript{56}
\end{quote}

In this way, conflicting functions can be accommodated in one object. Perhaps a wall must be located in a room due to structural requirements, and a programmatic separation becomes necessary. However, the space feels limited by this wall. It is not necessary to

\textsuperscript{55} Ibid.
\textsuperscript{56} Neutra, \textit{Survival through design}, 142
remove the wall and devise a clever alternative structural plan and an innovative screening device. One could simply suggest the wall is a thin veil by penetrating the surface of the wall with an element that appears to continue beyond where it actually does in reality. In this way, the penetrating element is not an illusion but as opposed to being seen for what it is, it appears to be more, and even changes the wall into a less limiting force. This particular example could, in fact, create a wall that is structural and a needed division, but at the same time maintain a lightness that suggests a certain amount of spaciousness. An example of this is the Mr. Ted and Mrs. Bonnet House in Hollywood California. The fireplace has a brick face that becomes a wall that penetrates the ceiling. This implies the wall going through the ceiling to the outside to carry smoke away from the interior; however, the staircase around the back of the fireplace makes the fireplace seem much less solid and gives the fireplace a sense of lightness.
Kant sets the groundwork for a study on how the mind alters perception of sensation. In Neutra’s design, ideas about the whole of perception and how each small change in particular parts can alter perception in calculated ways. Gestalt ideas once more link Neutra to Kant.

Figure 21. Fireplace in the Mr. Ted and Mrs. Bonnet House in Hollywood California. Picture from Life and Human Habitat page 203.

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57 Kant, *The critique of pure reason*, 82 Reference back to Immanuel Kant’s categories, which are expressed beginning at the stated page.
Similarly, materials can be used strategically to evoke certain reactions and can even be remade in perception. Materials, like form, are physical sensations which are altered by the mind. Materials carry with them inherent, possibly cultural, judgements. Stone is thought of as heavy and wood as light. These default perceptions can be used effectively in design as they are, or, in combination with form, they can be reinvented. Neutra’s use of materials is further evidence of the possibility that he is applying Kantian ideas to his works.

In the introduction to *Life and Human Habitat*, Alexander Koch states, “Neutra has most systematically experimented with construction and has a rare knowledge of materials”. Even in reversing the appearance of materials, Neutra has some success. Thomas Hines recounts comments about Neutra’s Tremaine House; “The *Architectural Forum* particularly appreciated the way in which ‘the strong plastic character of the concrete frame lifts it out of the cardboard modern manner, warms it without recourse to redwood texture or soft effects’”. Concrete is usually a very cold and hard material. Concrete usually works in contrast with soft elements bringing out the soft elements but at the same time, the soft aspects highlight the hardness of the concrete making a person very much aware of both elements. But the *Architectural Forum* article says that the concrete actually warms the project and does not counteract the soft elements. Neutra has taken the ability of concrete to conform to almost any shape to create a plastic expression of space in this home, but has reduced the hard and cold nature of concrete to the point in

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which wood textures and soft elements such as carpets can become dominant. He achieves the physical requirements of the project with concrete and works with materials and form in relation to human perspective in order to achieve the required psychological effect in subjects who experience the project. David Leatherbarrow discusses the same project, the Tremaine House;

The floor surface of the Tremaine House is made up of wide sheets of highly polished terrazzo, resting on top of a concrete slab. This surface extends throughout much of the house, through most of its public spaces and its wide terraces, providing an uninterrupted material substrate for circumambient passage and orientation. (...) There are no breaks in the floor level to mark the edge of a room (...) Nor is there a step down from the terrazzo onto the level of the encompassing land. 60

It is very strange that Neutra would use only one floor material and not floor breaks in a project. Perhaps this is not as strange in the context of his own works but in the context of

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other designers works. This by no means indicates that Neutra does not care about subtly separating space according to programmatic breaks or breaks of another nature. “While the building’s floor is uniformly flat, its ceiling is elaborately stratified, so much so that it is hard to call it a ceiling plane; a better term would be ceiling space”.  

The ceiling is not typically an accessible space in a building. A person can engage visually with the ceiling but little else can be said as an object base for interaction. Because the ceiling is the determining element in the separation of space, rooms can still be defined, effectively highlighting functional spaces. The material does not need to change. At times material, change is necessary for a strictly physical functional reason, or for a psychologically functional reason, but occasionally a material change between

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61 Ibid., 39
62 Of course, the ceiling influences the acoustics of a room as well as being a defining plane in a partially closed system determining the temperature of a space. Both of these contribute to an object base for a building but these influences are small enough to be discounted, at least, in examination of appearance of an empirical situation.
spaces is not required and perhaps the same material would work well for both spaces. At
times, even when two joined spaces require the same materials, a change is made simply
to separate one space from the other forcing one space to adopt a less suitable material
solution. This situation could be avoided by breaking the floor plane, but Neutra does not
do this either. Breaking the floor plane can create very hard boundaries depending on the
extent of the change. In addition changing elevation by only a few steps can become quite
a burden in the context of a house. The same person or people will encounter the same
few steps almost every day. Also at times, the changing in elevation might be even more
of a physical inconvenience. In a two-step change between a dining room and a living
room, which are in every other way open to each other and connected, the steps can be
the source of many problems. It is quite likely when visitors arrive, the living room, and
the dining room will be used. The owner will doubtlessly have to warn people who are
not familiar with their home about the change in elevation between rooms. Elderly
persons might have a slight difficulty with the steps, children running from one place to
the other might trip and fall, and infants left to crawl about might do likewise. Moving
furniture might be more difficult due to the slight change in height. All of these problems
incurred because of a need to separate one room from another. Instead of creating
problems Neutra takes a third alternative and changes the ceiling heights, which mentally
creates different zones by compressing and opening up spaces according to boundaries in
space. David Leatherbarrow goes on to say; “In such a ‘room without walls,’ or in these
‘rooms within room,’ the permanent aspects of settings are not defined at the lower but at the upper level or levels, by means of this stratified weave of ceiling planes’.

Neutra does realize there are times in which these ideas are solutions to practical problems. In the Pitcairn House, Neutra again does not use walls to divide the house as much as he uses other ideas. This time, he breaks the floor plane and changes materials. He does not do this simply to differentiate one room from the other, but he chooses these strategies to best accomplish this particular project. “The site is sloped and there are two entry points to the house: one on the high side (…) and another on the low side, about twenty-five feet below the front”.

If this house is to fit in the context of the site, as Neutra usually strives to do, the slope of the terrain needs to be followed meaning there is naturally twenty-five feet of elevation change available to Neutra to differentiate space. Breaking the floor plane still carries with it inconveniences, such as have been mentioned previously, but now these inconveniences already existed before the construction of the house due to the slope of the land. Neutra is not creating problems with this approach to design, he is instead operating in the context of what the site dictates and allows. He can now take this approach to differentiate between spaces and attempt to minimize any inconveniences due to a slight elevation change. The floor is also emphasized with a lack of light in the ceiling plane, “The fact that the ceiling space is also rather dark, because

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63 Ibid., 46
64 Ibid., 47
the depth of these trusses prevents light from illuminating much of the ceiling, also points
to the importance of the floor levels in defining settings without walls”.65

The contrast between sensation in the floor levels and lack of sensation in the ceiling
plane puts much more emphasis on the floor. This use of contrast is quite effective in
terms of separating space, but also in informing occupants of the level changes
themselves for their own personal safety. In *Mystery and realities of the Site*, Neutra says,

All site considerations, from view to privacy and from exposure to access,
seem more acute when we must plan for marked inclines. Yet subtler
considerations of the same kind hold true when grades are only gently
undulating or almost plane. The fingertip sensitivity of the planner must be
even greater where minute diversification of conditions in not decisive. In
the hands of a gifted and trained designer relatively small differences may
acquire heart-warming importance.66

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65 Ibid., 46
66 Neutra, *Mystery and realities of the site*, 57
In this way, both the Tremaine House and the Pitcairn House operate according to similar ideas, but are executed in different ways due to the differences in site in which they are located in objective reality. This is done always in the context of how a human mind will react to such moves, large or small, in the physical project.

Both Kant and Neutra understand that perception is formed by primarily the subject, based on the object, in the context of the surroundings. Kant mentions these things to understand in reality how a person can understand their surroundings. He is most interested with a reevaluation of how a person can know anything about their environment. Neutra is interested in these things not just to understand how a person will perceive his or her environment but how he can design and build for that person to positively change their environment.

Kant states that in the conception of an idea there are three parts; “1. The relation to the subject; 2. The relation to the manifold of the object as a phenomenon; 3. The relation to all things in general”.67 In order to adequately understand how a person will react to a situation, one needs to know first the person, then the object being designed, and finally the context. Neutra certainly is concerned with his client in the context of the building being designed as well as with the surrounding landscape. Thomas Hines, in a description of typical Neutra building elements, makes the following remark; “As pervasive and repetitive as such design elements were, however, the particular character of individual buildings was ultimately determined by the client, site, and program”.68 The

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67 Kant, *The critique of pure reason*, 230
only thing that separates the list put forward by Kant and the list of considerations taken by Neutra is the order in which they are given. The client is the subject whom Neutra tries very hard to understand, on a general level through psychology and on a specific level through meetings and regular correspondence. The program is the object. Technically, program is an activity or a use of a space and is not the space itself, but the physical building determines the program and is, itself, inspired by the program. The building is a physical representation of the program. In Life and Human Habitat, Neutra says about the slogan form follows function, “Our functioning is actually often a consequence of the shapes which surround us”.69 Physical surroundings can, on a conscious and subconscious level, influence how a subject or person will interact with the environment. The saying ‘form follows function’ might be better suited to remind a designer to account for function while they create a physical form, but Neutra certainly has a point that this statement cannot be taken literally. The site can be considered the ‘relation to all things in general’. Of course, Kant quite possibly means this in a much broader sense, to a scale that may be incomprehensible. However if a relation to all things is taken within only perception, as it is with most people on a day to day basis, all things become a whole ‘picture’ in perception, and not a mental abstraction from the immediate situation. Neutra has much to say about the site in his book Mystery and Realities of the Site, but his last piece of advice is much more encompassing than his more specific suggestions about preserving trees and creating views, “Finally, try to understand the character and peculiarities of your site. Heighten and intensify what it may offer, never

69 Neutra, Life and human habitat. Mensch und Wohnen, 20
work against its inner grain and fiber’. There are many factors that go into the whole of a site. The orientation of the sun, wind, slope of the land, the location of neighbors, the range of plant life, the location of trees, soil quality, but even more there is a spirit of the place that must be addressed.

It is possible that outside influences can impact the perception of a current situation. Experience tends to change sensation on a very personal level between subjects. About experience, Kant states that

For all experience and for the possibility of experience, understanding is indispensable, and the first step which it takes in this sphere is not to render the representation of objects clear, but to render the representation of an object in general, possible. It does this by applying the order of time to phenomena, and their existence. (…) From all this it is obvious that the principle of cause and effect is the principle of possible experience, that is, of objective cognition of phenomena, in regard to their relations in the succession of time.

Experience, then, creates cause and effect by assigning an order and a sense of causation to a string of events. Because cause and effect are connected to ‘possible experience’ this relationship is not purely empirical, but it is altered by mental re-evaluation to stitch events together for the purpose of practical applications. The idea that experience is general and not specific is also shared by Neutra. Neutra discusses how some elements can dominate a recollection;

If a person says ‘New York,’ he may think of only two or three spots or overwhelming scenes, such as a glance north from Times Square at theater-closing hour. This particular view, taken in at a particular moment,

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70 Neutra, Mystery and realities of the site, 62
71 Kant, The critique of pure reason, 155-56
may dominate over a thousand other drab and insignificant ones which he has seen in the same city but has failed to register so forcefully.\textsuperscript{72}

Even though a person technically has experience in other places in New York, the ones that come to mind are more forceful and general. A designer cannot expect a person to remember everything in their building and this can be used to their advantage. In \textit{Mystery and Realities of the Site}, Neutra offers some advice, “Think at once of screening your little visual empire. Calculate the possibility of ‘planting out of sight’ what you do not want to see”.\textsuperscript{73} This ‘planting out of sight’ could be physical but could also be in the mind by overwhelming a subject with one element, so that a person does not realize another element. At every turn, Neutra is looking for practical information to improve his designs. When Neutra designed a vacation home for John Nicholas Brown, his wife Anne Brown said that Neutra was special because he combined great imagination, aesthetic abilities, and a pragmatic approach that other modern architects lacked.\textsuperscript{74}

Even more than conscious reorganization of sensation into perception there is also a subconscious reaction to the environment. It is not surprising that Neutra would be aware of, or interested in, the subconscious given his relation to Sigmund Freud. More than a fascination, Neutra takes subconscious reactions quite seriously; “Our deep and unconscious responses lend the environment demonic powers over us”.\textsuperscript{75}

\textsuperscript{72} Neutra, \textit{Survival through design}, 210
\textsuperscript{73} Neutra, \textit{Mystery and realities of the site}, 62
\textsuperscript{74} Hines, \textit{Richard Neutra and the search for modern architecture: a biography and history}, 151 Recall back to the discussion of the Windshield House and Neutra’s use of a questionnaire to design the house and its furniture along pragmatic lines for these specific clients.
\textsuperscript{75} Neutra, \textit{Survival through design}, 25
designer essentially changes the environment through building these ‘demonic powers’
become a part of the designers arsenal. According to Neutra,

> Conscious affirmations seem to come frequently post factum, not as groundwork. They are rarely decisive at the beginning and are often hardly more than the additive satisfaction of final solidification. They appear after little accounted-for emotions have already established a strong attitude, pro or con, toward a design. At any rate, our responsive contact with a design often operates in a more direct physical manner, such as actually sitting on a designed chair. Mere abstract meditation—just thinking about it—does not even begin to exhaust our essential relation to a design.76

The subconscious comes before conscious evaluation of a design. Because of pre-established experiences and orientations toward one idea or another, an initial reaction will be instantaneous and subconscious. As Neutra mentions, physical sensation creates the response. This response comes from the subconscious, usually in the form of emotions. This emotional response, or lack of emotion, creates a position on a design before thought enters the equation. It is important to understand how to orient the subject’s reaction to a favorable position. Thinking about a design can, later, change a person’s view but this often requires another subject to disagree in order to force the first person to re-evaluate their convictions. Often, thinking merely reinforces the same view that the subconscious first presented. This idea makes sense in most cases as the subconscious is most concerned with the well-being of the subject.77 Because the subconscious can be seen as a ‘primitive will to survive’, the subconscious can be studied. Neutra understands this: “Apart from things said or thought consciously, this

76 Ibid., 242
77 People and animals often make connections between events that aid in their survival as opposed to hinder it. At times, however, connections are made for very specific situations and if these connections are applied outside of their original context subconscious reactions are counterproductive.
physiological brain phenomenon of spread of response plays its perpetual role in the silent, subconscious reactions to design. Experimental observation of it in the laboratory is possible”.\textsuperscript{78} It could be said that he ‘experimented’ on his clients, in a sense. Certainly Neutra learned from his interaction with his clients and his clients’ interactions with the building he designed.

Parts of the subject, such as experience, can impact perception quite heavily. Also, the environment can consciously and subconsciously persuade the subject toward one tendency or another. Knowing that there is a working relationship between subject, object, and context is distinct in Kant’s philosophy, and it is evident in the writings and built works of Neutra.

Neutra and Kant both understand that reality is broken into parts by the human mind, and that these parts are altered for pragmatic reasons into perception which, may or may not be an entirely accurate view of reality. This altered view is based upon the subject to whom the view belongs.

Relationships such as cause and effect are usually broken into a series of events organized in a conception of time in order to make these events understandable and useful in the future. This separation can help a designer to understand the consequences of their actions, as well as physical and psychological reactions to a project. This separation, however, does not actually exist in reality but only in perception. Cause and effect are in fact inseparable and happen at the same ‘time’. If a cause does not

\textsuperscript{78} Neutra, \textit{Survival through design}, 210
simultaneously create an effect it is not actually a cause of that effect, but perhaps of an unperceivable intermediate effect that becomes the cause for something more relevant.

These cause and effect relationships make up ‘change’, which is all a subject can know. Neutra realizes this within the context of design, especially in his theoretical project, Rush City Reformed. Kant states that everything is in a state of change and everything is, consequently, in the process of disappearing and appearing within perception. Knowing that everything is simply changed, not created or destroyed, and that nothing can remain completely constant, leads a designer to realize that one cannot, and should not, design for static situations, but instead for dynamic continuous situations in relation to the subjects who will be exposed to them.

Ultimately, all of these relationships are simply mental revisions on an objective reality. These changes are not in the object, but they are in the subject. This means the subject needs to be studied. Kant knows the study of subject as psychology and Neutra is very much interested in psychology. Only through knowledge of both the receiver and transmitter can progress be made in designing for one or the other, or more accurately both at once, as they always exist in reality.
Chapter III
Judgement

Once an idea of how perception is formed, it is necessary to know how a person will respond to that perception. Richard Neutra knows that each person might react differently to the same situation, and he treats each person as an individual case.

Immanuel Kant seeks to understand the nature of judgements in themselves. He knows that judgements are subjective and therefore different between individual people.\(^1\) Kant even explains how communication between subjects is possible, given that each has their own individuality that shapes perception.

Kant looks for possible objective points within judgement upon which, outside of sensation, judgement can be based. Kant discusses the differences and the origin of ideas of the beautiful, the agreeable, and the good.\(^2\) Neutra addresses these ideas in terms of architecture, although Neutra’s terminology differs from Kant’s, due to his fascination with recent developments in psychology.

Neutra tends to question each client about their daily lives and communicates with the client quite frequently in order to know what he or she requires, and how that individual will react to the building he designs. Kant tends to focus more generally on

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how people react to general situations, having to do with art and nature. Both of these topics are relevant in terms of what Neutra accomplishes in his projects, and in terms of topics Neutra discusses in his written works.

This chapter will first focus on how beauty is understood by Neutra and Kant. Both men regard beauty as something that is relatively objective; however, there exists no physical sense of beauty creating a subjective judgement of what is beautiful. This chapter will also focus on similarities in judgements that have been made by Kant and Neutra that might indicate Neutra’s adherence to aspects of Kant’s philosophy, such as the sublime being a more desirable outcome than beauty. This section will also discuss Neutra’s tendency to ‘interrogate the client.

**Beauty cannot be directly perceived**

Both Neutra and Kant share the view that beauty cannot be directly sensed, or likewise simply felt. For Neutra, beauty is understood by a combination of the senses that allows a person to experience beauty, but there is no simple sense that detects beauty. Kant says that beauty is a play between subject and object. A person perceives an object, and that person, through a sense of taste, produces a dispassionate judgement of beauty on that object. Kant is clear that something exists in an object for the possibility of beauty to exist, as beauty is objective for Kant. Kant realizes that it is possible to disagree between persons due to differing abilities to judge an object using their unique sense of

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3 This is similar to the transformation from sensation to perception (as discussed in chapter 2). For Kant, Judgement compounds itself on perception.
taste. Taste is not a physical sense but a faculty of the mind. Neutra’s perception of how beauty is experienced is similar. The combination of senses can happen nowhere else but in the mind. Neutra seems to take a Kantian approach, and attempts to use and expand these ideas in conjunction with modern ideas emerging in psychology.

To say that something is beautiful is to make a subjective judgement upon an objective object. Whether or not beauty actually exists in an object, that object must be perceived by a subject. It is that subject, who is perceiving, who may or may not see beauty in the object. In *Critique of Pure Reason*, Kant states that, “I find that judgement is nothing but the mode of bringing given cognitions under the objective unit of apperception. This is plain from our use of the term of relation is in judgements, in order to distinguish the objective unity of given representations from the subjective unity”.

Likewise any judgements on an object such as beauty must be subjective. In *Critique of the power of Judgement*, this is reinforced, “The judgement of taste is therefore not a cognitive judgement, hence not a logical one, but rather aesthetic, by which is understood one whose determining ground cannot be other than subjective”. This judgement of taste concerns the judgement of objects to be beautiful. Kant goes on to say in a footnote, “The definition of taste that is the basis here is that it is the faculty for the judging of the beautiful”.

Taste is not the sense of beauty but the ability to recognize or judge beauty. Taste is not personal but it comes from each person.

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5 Kant, *Critique of the power of judgement*, 89.
6 Ibid.
Hence he says that the thing is beautiful, and does not count on the agreement of others with his judgement of satisfaction because he has frequently found them to be agreeable with his own, but rather demands it from them. He rebukes them if they judge otherwise, and denies they have taste, though he nevertheless requires that they ought to have it; and to this extent one cannot say, ‘Everyone has his special taste.’ This would be as much as to say there is no taste at all.\(^7\)

According to Kant, beauty must exist in perception, but not to the extent that it can be easily perceived by everyone. Beauty might be something like any other object in perception. The difference is that people have eyes to see physical objects but there is not a sensory organ to see beauty; therefore, a person must judge something to be beautiful. This ability to judge beauty is taste. Neutra also believes there is no physical sense of beauty. In *Survival Through Design* he comments; “Among the many senses, formerly unheard of and recently discovered, there is no sense of ‘beauty,’ nor has a separate one for ‘utility’ been spotted”.\(^8\) He is certainly not saying beauty does not exist; otherwise his argument would be that there is no sense of beauty, because there is no beauty. On the contrary, he thinks of a sense of beauty as a collaboration of the senses that exist in a directly perceivable way. In *Life and Human Habitat*, Neutra states

> Among the millions of newly discovered senses, our science has failed to find a ‘sense of beauty’. This expression is mere rhetoric. The wonderful event of beauty stems from many different, initially well balanced, nervous responses in closest combination and of the most subtle timing.\(^9\)

Neutra knows that it cannot be one sense that is responsible for recognizing beauty, so it must be a combination of senses which allow someone to judge something as beautiful. It also cannot be just a static moment, “The concrete beauty of an organism, say a plant, is

\(^7\) Ibid., 98.


not understood as just a static non-operational phenomenon looming in space. Here too, a
dynamic time perspective is indispensable and unavoidable”.\textsuperscript{10} Beauty is not simply the
gratifying sensation of the senses, or else a static moment would be enough to form such
a judgement. Beauty is a judgement that is formed with a combination of the senses and
by feeling, if not a higher form of reflection. Neutra and Kant agree that beauty is not an
arduous judgement to make. It comes to a person within their limitations of taste rather
quickly. Kant describes the preparation of a dish;

> For someone may list all the ingredients of a dish for me, and remark
about each one that it is otherwise agreeable to me, and moreover even
rightly praise the healthiness of this food: yet I am deaf to all these
grounds, I try the dish with my tongue and my plate, and on that basis (not
on the basis of general principles) do I make my judgement.\textsuperscript{11}

Even though the food is supposed to be good, or at least agreeable, judgement of the food
comes to the subject’s senses, but more than the subject’s senses, it is how the subject
reacts, or how he or she feels, that determines the initial judgement. Because it is not
merely the senses, but also the mind, that lead to the judgement of beauty, it is certainly
possible for disagreement. This possibility exists whether or not beauty is an objective
reality. In \textit{Observations on the Feeling of the Beautiful and the Sublime} Kant notes; “The
different sentiments of gratification or vexation rest not so much on the constitution of
the external things that arouse them as on the feeling, intrinsic to every person (…) Hence
arise the joys for some people in what is disgusting to others”.\textsuperscript{12} Subconsciously people

\textsuperscript{10} Neutra, \textit{Survival through design}, 78.
\textsuperscript{11} Kant, \textit{Critique of the power of judgement}, 165.
might build predispositions towards certain things based on many mental factors. These dispositions lead to feelings that decide initial judgements upon an object or situation.

Both men see beauty as something that is not sensible by any traditional or known sensory organ. Beauty is instead a complex judgement based upon not only a combination of the senses, but also on a mental reaction to the object or situation. Neutra takes this knowledge in order to more adequately understand how to design a beautiful situation. He does not think that an object can necessarily be judged beautiful in all situations, but that judgement relies on the subject and the kind of sensory stimuli they are able to gather from a design situation. Neutra essentially applies these ideas each time he establishes views from his projects to the surroundings, or when he creates interesting landscapes around the project.

Kant designates three main judgements upon objects: agreeable, beautiful, and good. “Agreeable is that which everyone calls what gratifies him; beautiful, what merely pleases him; good, what is esteemed, approved, i.e., that on which he sets an objective value”.\(^{13}\) Agreeable correlates with positive sensory experiences, beautiful is a passive feeling of pleasure from an object, and good relates to the objective function of an object. Kant further explains beauty, “One can say that among all these three kinds of satisfaction only that of the taste for the beautiful is a disinterested and free satisfaction”.\(^{14}\) Beauty is disinterested and free because it does not come from the senses; it is not a directly sensible phenomenon; rather, it is through judgement that it can be

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\(^{13}\) Kant, *Critique of the power of judgement*, 95.  
\(^{14}\) Ibid.
known. This is not to say that these three feelings of satisfaction cannot be intermixed.\textsuperscript{15} Adolf Loos was quite adamant about this, “But that would mean these vases are ultimately just practical! And we always thought they were beautiful! But how can that be? For we have always been taught: practicality excludes beauty”.\textsuperscript{16} Adolf Loos is discussing a Greek vase. He discusses the practical aspects of the vase such as the form in relation to its ability to be balanced. He concludes the vase is beautiful, but it was not formed only to be beautiful. It is beautiful and functional. In Kant’s terms, the vase is both good for carrying water and is beautiful to look at. Neutra completely agrees with this idea, “If any design could be split into beauty on one side and utility on the other, as now many of us so readily assume, it would not be akin to the organic life in us or around us, which most certainly has no such divisibility”.\textsuperscript{17} For Neutra, not only can beauty and function coexist, but in all situations, there is some degree of beauty and some amount of function. He states this even more clearly in Life and Human Habitat, “The dualism which assiduously wants to separate the beautiful from the useful has no precedent in nature”.\textsuperscript{18} Certainly the function in a work of art could be pragmatically so insignificant it is best to only account for its beauty, nevertheless, there is some function. In such cases, it is common to say that the function of art is to be beautiful. Neutra says that a designer must think about function and aesthetics while designing.

\textsuperscript{15} Intermixed, not interchanged.
\textsuperscript{17} Neutra, Survival through design, 18.
\textsuperscript{18} Neutra, Life and human habitat. Mensch und Wohnen, 22.
Up to now, the designer has too often motivated his selections vaguely, by
taste alone, or his basis a checkered mixture, but hardly a fusion of
‘aesthetics’ and ‘practical considerations.’ He must learn to respect
science as a base and corrective, but as an artist he will not use it in cold
blood.19

Again Neutra claims, while function and aesthetics are different, they can and should
exist together in the same work. He points out that many architects he observes tend to
make something functional or aesthetic and not a complete blend of both. Neutra tries to
make each of his projects function for a specific client as well as have an overall pleasing
aesthetic. Beyond simple layouts of rooms in his projects, that certainly should function,
Neutra adds specific details to each of these spaces to make sure that they perform as
intended. Designing furniture is one of the ways he is able to accomplish this task of
assigning specific functions.

19 Neutra, *Survival through design*, 384. Using science as a base reiterates the ideas of the chapter on
sensation. Sensation is the base on which design starts. His comment ‘as an artist he will not use it in cold
blood’ is a very rational statement. Instead of applying an empirical formula ruthlessly to every situation to
which it would seem to apply, Richard Neutra says that we need to use reason to determine where science
might not be able to provide help at the moment, and to ensure that scientific solutions do not actually
cause additional problems, effectively treading on the subjects it was meant to aid.
In the Mr. and Mrs. Samuel Miller House in Los Angeles California, among other things, Neutra designed a table with legs that fold at the halfway point so the table can be a coffee table and a dining table. This is very different from the tables other contemporary architects would design, such as those of Frank Lloyd Wright. Wright’s tables are very aesthetically interesting, however, the table and chair sets he has designed are not always the most comfortable or flexible. This is not to say that Neutra’s furniture is only functional. The size, shape, proportion, and materials of the table in figure 16 fit with the aesthetic of the house. He designs a measure of function and beauty into his furniture that does not compromise one or the other. Another example is the dresser he designed for the Treweek House in Silverlake California.
The dresser in this project has a mirror that can fold down to make a continuous counter space as well as making the top and back of the mirror easier to dust. When one looks at the dressers it is easy to see how functional they really are, but, without knowing that they are supposed to be functional, one might think they are merely an aesthetic move. They are simple, elegant, and fit in the context of the materials in the space. They are a combination of beauty and function, and they do not make many, if any, compromises for the sake of one judgement over another. It is also important to note that Neutra’s furniture does not function as a central focal piece as one might expect from an architect due to contemporary examples of furniture. Neutra tries to make the furniture work in the space.
in a functional and aesthetic way that supports the space without overwhelming it, in accordance with Gestalt principles.

When one takes into account Neutra’s obsession with the survival of humanity and the ways in which he can design for all the different sensory receptors, it could be said, in Kantian terms, that Neutra is concerned with the agreeable, the beautiful, and the good aspects of each project he designs, not as three separate ideas to be placed into separate objects, but as three ideas that must, at some level, be incorporated into each project as a whole. Regarding the separation of utility and beauty, Kant states that “Objective purposiveness is either external, i.e., the utility of the object, or internal, i.e., its perfection. That the satisfaction in an object on account of which we call it beautiful could not rest on the representation of its utility is sufficiently obvious”.\(^\text{20}\) Kant is not saying that an object cannot have utility and beauty at the same time, but he is saying that the object’s beauty does not rely on the object’s utility. Something cannot be beautiful simply because it works.

Beauty and function are two separate qualities that occur in all objects to some degree. Neutra understands that beauty and function do not have to detract from one another, and that they can and should be mutually accommodated. Both Kant and Neutra understand this. Kant breaks apart judgements such as the agreeable, the beautiful, and the good in order to understand each in itself. Neutra combines these judgements in order to apply them in reality.

\(^{20}\) Kant, *Critique of the power of judgement*, 111.
Judgements are not solely based upon sensation but possibly other matters of the mind. Kant knows that empirical experience does not constitute knowledge by themselves. Neutra notes particular ways in which the mind might alter judgement.

It is possible that in the judgement of an object’s non-sensuous factors play a critical role. Neutra brings to light that the process might be a very important part of how an end result is judged,

The way a thing is produced seems to matter a great deal in our evaluation of the result, even though we ourselves may not be the exploited slaves, or foot the bill. But in its psychological effect upon us or in its aesthetic appeal the ultimate product is not independent of an implicit interpretation of the processes that brought it about.21

Even if the person who judges the object did not pay for it or physically build it, the process can still be a part of the object in judgement. If only the person who pays for or builds this object could judge the object differently because of the process, it might be only nostalgia, or perhaps a strong sense of ownership. Although it is true that all people can attribute the process to an object, and thereby have their perception changed of the same object, the maker of the object certainly has an altered judgement upon the object. Adolf Loos points out this as a part of his anti-ornament argument,

But does the crafts industry itself not know what its best products are? Oh no. It knows as little about its own production as the poet, the painter, in fact, any artist at all can know about his own art. Such an artist will always value most highly those products of his muse which have cost him the most effort and vexation. Those creations, however, which he produced almost naturally, without effort, (…) these he dismisses as not particularly important.22

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21 Neutra, Survival through design, 73.
22 Loos, Spoken into the void: collected essays, 1897-1900, 15.
In this way, the process can create misjudgements. Just because something took a long
time to make or cost much to construct does not mean that it is agreeable, beautiful, or
good. Loos points out that, as long as all products are functional, the craftsman should
want to produce products effortlessly, yet because the process is a part of the judgement
upon the product, the objects that took much time and effort are valued much higher by
the craftsman. 23 This value in itself might be misplaced although even this kind of value,
pertaining to the amount of effort and cost, can be experienced by consumers. Often
people expect more value out of a product that costs more than a substitute, whether or
not the product is, in fact, superior. In the food industry, promises of being ‘all natural’ or
‘organic’ tend to demand higher prices regardless of actual quality. Neutra tries to make
each element especially functional and yet fit into the aesthetic of the overall home. In his
Mr. and Mrs. Samuel Miller House in Los Angeles, California he designed a dining room
table that is collapsible to serve more than one purpose. 24 In the Treweek House in
Silverlake, Los Angeles he designed built-in dressing tables with fold down mirrors to
make it easier to dust. 25 The function of these designs and the aesthetic they provide add
value in judgement to these projects.

In addition to the process, the intention, as stated by the designer, could ultimately
influence judgement. The way a building is designed can, to some extent, limit or
encourage a certain function. More important than this is perhaps the intention of the

23 Neutra does not design overly complicated projects. He does not try to design something so complicated
or unusual that it demands respect; instead, he attempts to design something that truly works for the client.
24 Neutra, Life and human habitat. Mensch und Wohnen, 97.
25 Ibid., 73.
client who commissions the project, or what the designer says the project exists for.

Neutra states that

A building can be dedicated by design to a specific function, which again is characterized by the palpable use that the owner makes of it. Or it can be intended as a symbolic monument which has no practical function but mystically, by its mere existence, means something.26

These specific functions are certainly susceptible to change, even if the structure is not physically altered, but simply if ownership of the building passes from one person to another. Neutra brings up the example of a Roman triumphal arch. This monument has only one brief moment of use in which captives are lead through it; following that event, the arch is redefined through the ages.27

Past experience can also play a part in the judgement of current phenomenon.

Certainly, a person with experience working with nature will react to certain plants and animals differently than would someone without experience. Neutra also uses the human face as an example of the “phenomenon of physiological form”.

A face, whatever may be done to it and whether it be human or the face of a landscape, can be regarded in various ways. To start with, this face is a phenomenon of physical form. In more involved terms it can be described as a phenomenon of physiological form. And finally, it is what one can call a physiognomic phenomenon of mental significance and content.28

Neutra means to that say a face is a physical object in reality, but that physical phenomenon has mental significance attached to it. Experience with faces helps a person judge who they are looking at, or on a more general level: age, gender, mood, health, etc.

26 Neutra, Survival through design, 252.
27 Ibid., 253.
Neutra is convinced that everyone evaluates these types of observations. “Whether we are withdrawn philosophers, or grocers (…) we cannot in our daily routine avoid evaluating faces as animated. We must do this evaluating and we love to do it”.

As has been stated before, the senses do not judge, but, as rational beings, people judge what it is the senses have detected. Kant knows the importance of experience in the judgement of sensation: “That all our knowledge begins with experience there can be no doubt. (…) But, though all our knowledge begins with experience, it by no means follows that all arises out of experience”. Kant believes that knowledge starts with sensation and experience of past sensation of a similar nature, but this in itself is useless, since sensation on its own cannot judge. Kant believes it is a combination of empirical observation and rational thought that allows a person to develop knowledge about the world. As Neutra phrases it, a physiognomic phenomenon of mental significance and content, the phenomenon is physical, for which reason it can be empirically studied but also has mental significance, experience and judgement on the situation. Without the mental significance, a face is simply just matter.

Kant discusses whether beauty is inherent in an object, or merely a judgement upon that object. If one is to say that something is beautiful based upon a pleasurable experience, it might be that this is merely agreeable. “To say ‘This flower is beautiful’ is the same as merely to repeat its own claim to everyone’s satisfaction. On account of the

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29 Ibid., 10.
30 Kant, The critique of pure reason, 27.
31 Even this is a judgement, but for the sake of this argument, it will be assumed that matter is an objective reality and cannot possibly be questioned, and that the validity of this concept of ‘matter’ is easily perceivable by all.
agreeableness of its smell, it has no claims at all. For one person is enraptured by this smell, while another’s head is dizzied by it”.\textsuperscript{32} If the flower really is beautiful, to say so is to state the obvious. If the judgement of beauty is based upon the senses, then it is doomed to fail in any objective claim to beauty, since the senses would contribute to the agreeable nature of the flower. The agreeable can never be completely objective as it is a personal reaction to stimuli. Kant believes that it is in the form of an object that beauty exists. “In painting and sculpture, indeed, in all the pictorial arts, in architecture and horticulture insofar as they are fine arts, the drawing is what is essential, in which what constitutes the ground of all arrangements for taste is not what gratifies in sensation but merely what pleases through form”.\textsuperscript{33} The form does not have anything to do with sensation and causes the pleasure Kant identifies as beauty. This form is not necessarily a physical form, but a platonic form, meaning that it exists only in the mind, yet it is attached to the physical object that can be sensed. Forms of sensation are not to be confused with these forms.

All forms of the objects of the senses (of outer as well as, mediately, the inner) is either shape or play: in the latter case, either play of shapes (in space, mime, and dance), or mere play of sensations (in time). The charm of colors or of the agreeable tones of instruments can be added, but drawing in the former and composition in the latter constitute the proper object of the pure judgement of taste (…).\textsuperscript{34}

Form is a result of shape, a combination of sensations, or a mix of the two thoughts. A sensation in itself cannot constitute a form; instead, it requires a play of sensations. Individual sensations create charm or agreeable sensations. Kant says that these can be added and work with the composition of beauty, but without a beautiful form, charm becomes quite shallow. Neutra recognizes the importance of form in the context of

\textsuperscript{32} Kant, \textit{Critique of the power of judgement}, 162.
\textsuperscript{33} Ibid., 110.
\textsuperscript{34} Ibid.
judgement. “Shape and sense appeal are primary, most active, working continually on our nerves and minds. A bright firefly makes its mate travel a long way. Our functioning is actually a consequence of the shapes which surround us”. This is essentially the same observation made by Loos about Greek pottery. Beauty has the potential to cause things to happen within the context of function. Similar to a firefly, the way a person judges how a space is to be used or what to do with an object is based upon form. Neutra mentions, before asserting that function is a consequence of shape, the saying “form follows function”. Certainly in the moment of design, the form must be designed to encourage the desired function, however, form can never truly follow function. Function is a judgement of utility upon an object. Function cannot simply precede form which does not yet exist. When a designer makes informed decisions about form in relation to function, that person designs a theoretical form, be it drawings, models, or simply a mental understanding of the project. Then one imagines, based on past experience, what type of function this form will engender, should


Recall back to the introduction chapter where Loos makes a case for a combination of beauty and function, as opposed to a separation between the two ideas.

the project actually exist. Neutra asserts that the phrase “form follows function” is backwards to what happens in reality. A designer can use function as inspiration to create a form, but the true function will not emerge until the form has been created. In reality, function follows form. A designer could build a house for a family and label each room a certain way, but ultimately the family who lives there will relabel each room, since they use them in different ways. Function is a judgement upon an object, not an object in itself. A table could be designed for six people but then perhaps only four people want to use it. And maybe those four people do not use it for dining, but instead, use it as a workspace, contrary to the designer’s intent. Neutra attempts to avoid situations such as these by heavily questioning the client so that the judgement of function does not take an unintentional, divergent direction.

36 Recall back to the introduction chapter where Loos makes a case for a combination of beauty and function, as opposed to a separation between the two ideas.
Judgements, such as whether or not an object is beautiful, are quite complex. They are certainly based upon a subject’s perception of sensation, but they are further altered by the mind and outside influences. The process by which something comes into existence affects how one person views an object, compared to a similar object in appearance but not in origin. The intention as stated by a designer or an owner can also shape the judgement of function or utility of an object or building. Past experience can, just as the other two ways, change how a situation is viewed entirely. Each of these factors is at work in each situation, perhaps not in a strong way each time, and they need to be accounted for in order to determine how a subject will judge a designed object or any object of the senses. Kant says that a judgement is partially based on an object and partially based on the person who perceives that object. Neutra uses that knowledge to determine specific ways in which a client might alter their judgement upon an object without altering the object itself.

“Interrogation of the Client” as a Means of Understanding Function

The abstract person needs to be understood in order to adequately design for a client. Not only do people need to be understood, but the individual person needs to be known. Ultimately, it is the occupant who determines the function of a structure. If it is the client who determines what a building will be, Neutra believes the client should be designed for with his or her needs in mind. He should not design a house and expect the client to adjust to his interpretation of a home, but instead, he works closely with the client to understand what the house needs to be for this individual client. He does this by essentially interrogating his client with a long list of questions relating to the client’s
daily life. Neutra also tends to communicate extensively with the client during the design process. He recognizes that not all people are the same, and that each person has inherent idiosyncrasies that could be relevant for design. Kant realizes judgement is a subjectively obscured power of humankind. The ability to judge a situation is shaped by many factors that make a person a unique individual. Kant and Neutra discuss topics such as habits, the nature of humankind, and the importance of studying humanity.

Essentially, Neutra is asserting that, in order for him to make judgements upon a design, he needs to know how the client will judge what he ultimately designs. Neutra asserts about contemporary design; “If our designs are to hold water, we not only must have a technological and commercial horizon but we must more truly know man”.  

He not only focuses on man in general, although that is important as a base for knowledge, but also on man as an individual. Brett Tippey states that “However, his universal, ‘biorealistic’ approach to design did not regard humankind as a collective mass; rather he called architects to exercise empathy with the particular client as a unique human being in order to create highly livable architecture”. Neutra certainly does speak about humanity in universal terms, but he does not design for a universal person; he designs for an individual person. In one case Neutra discusses allergic reactions to various natural elements in a landscape. He then says; “The role it plays for the design of a dwelling environment is to show the architect often is called to plan for individuals not merely for

37 Neutra, *Survival through design*, 20.
‘man in the abstract’.\textsuperscript{39} Allergic reactions certainly are not universal to humanity; otherwise it would not be an allergic reaction, but a reaction to poison. These reactions are reminiscent of the feelings of the agreeable that Kant mentions. These feelings are merely subjective, and they are purely a reaction to stimuli in the moment. The agreeable is a subjective judgement. “With regard to the agreeable, everyone is content that his judgement, which he grounds on a private feeling, and in which he says of an object that it pleases him, be restricted merely to his own person”.\textsuperscript{40} One cannot expect if a person is allergic to bees, for example, everyone would die after being stung by a bee. Only a person who is allergic would be in trouble. Because feelings of the agreeable are completely personal, it is not logical to use oneself as a template for design. A designer would then be designing for him or herself and not the client, necessarily. To determine how a client would react in terms of the agreeable, it might be best to ask that client how they would react. It is possible, through large-scale psychological testing, to determine how some people will react, maybe even how most people will react, but not an untested individual. For Neutra it is not enough to guess how a person will react; he wants to know “what we actually are concerned with are human responses”.\textsuperscript{41} He says this in relation to a site having a view. Certainly this statement is more reliant on the person viewing the scene as opposed to the site actually possessing anything. One person might prefer rolling hills, another a forest, and yet another might prefer a city landscape. One would have to observe an individual for some time to determine these preferences or perhaps simply ask

\textsuperscript{39} Neutra, \textit{Life and human habitat. Mensch und Wohnen}, 214.
\textsuperscript{40} Kant, \textit{Critique of the power of judgement}, 97.
\textsuperscript{41} Neutra, \textit{Mystery and realities of the site}, 15.
about their preferences. Neutra, while utilizing the direct approach for design, did at the same time observe society, “Neutra could not refrain from observing the darker worlds of depression, poverty, and despair. By contrast, his own problems seemed relatively benign. Again his insightful letters to his wife, Dione, revealed his knack for social observation”.

This ‘social observation’ makes up a great amount of the observations about the human condition that Neutra writes about, and doubtlessly uses as a starting point in regards to expectations concerning his clients.

People tend to have, not only, different ways of seeing the same thing but also different sets of behavior. Kant defines habit as such; “From a subjective necessity arising from repeated association of experiences erroneously considered to be objective-in one word, from habit”. Habits are subjective, and therefore hard to determine outside of the subject that holds them. But even though they are subjective, they have objective significance to the subject who carries them out. It is important, when designing for a client, to understand his or her habits in order to design a project that fits with the client, as opposed to asking the client to fit the project. Regarding Neutra’s work on his home, Phillip Lovell said: “He diligently ascertained the living habits of this family”. Neutra knows habits are more than simple reactions to sensation, and that they are subjective judgements that are difficult to determine without the client. “Objectively there was little one could say when a client said ‘I like it that way.”. Even if a designer understands

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43 Kant, The critique of pure reason, 93.
45 Neutra, Life and human habitat. Mensch und Wohnen, 16.
that a habit of a client is subjective, it is not necessarily true that the client understands this. Habits are often very difficult to change; “It is human that the longer the habit, the stronger and less changeable it appears and proves itself”. 46 Given the difficult task of changing a habit, it would prove more effective to accommodate habits instead of remolding them. If a habit is not accounted for in the design of a structure such as a house, it cannot immediately be known if the habit is permitted to survive. If a habit cannot continue in this new built environment it will cause stress and tension in the person who perpetuates the habit, until the habit is slowly removed. During this removal of a habit, the client might associate negative sentiment with the structure that has interrupted their daily life. The pursuit of designing for the individual human being drives Neutra to design for habits. Neutra reminds us, “People are not simply ‘normal’”. 47 Physically and mentally a client is different from the next. If a designer understands, as Neutra and Kant do, where these differences exist they will know where to look.

Neutra and Kant share the stance that each person is unique. Kant faces the problem of how to understand humankind, full of individuals, and how each can possibly interact with each other. Neutra is confronted with the question of how to design for each individual client. Kant makes it clear that a subject can hardly know the world around them with a large amount of certainty, and that it is even more difficult to know how someone else will view the world. This problem laid out by Kant is taken up by Neutra, for which reason he so aggressively investigates the client’s psychological perspective in

46 Ibid.
order to determine that which needs to be designed, as well as the best methods of carrying out these ideas in built form.

**Sublime and Beauty**

There are other feelings beyond the agreeable, the beautiful, and the good. Kant also discusses the nature of the feeling of the sublime in relation to the beautiful. Neutra also discusses attributes similar to those given to the sublime by Kant. Both Neutra and Kant tend to esteem feelings of the sublime to be preferable over feelings of beauty. To Kant, the sublime transcends form and is overwhelming. Neutra tends to gravitate towards simplicity, smoothness, and repetition, which can be counted as ingredients in the creation of Kant’s conception of the sublime.

Kant sets apart the sublime from beauty. In *Observations on the Feeling of the Beautiful and Sublime*, he differentiates between these two feelings:

Lofty oaks and lonely shadows in sacred groves are sublime, flower beds, low hedges, and trees trimmed into figures are beautiful. The night is sublime, the day is beautiful. Casts of mind that possess a feeling for the sublime are gradually drawn into loft sentiments, of friendship, of contempt for the world, of eternity, by the quiet calm of a summer evening, when the flickering light of the stars breaks through the umber shadows of the night and the lonely moon raises into view. The brilliant day inspires busy fervor and a feeling of gaiety. The sublime touches, the beautiful charm.\(^{48}\)

The sublime is less about sensation and more about the places to which the mind will turn. The beautiful is an instinctual feeling that is dependent on the senses. When Kant says the night is sublime and the day is beautiful, he says this not to mean that all people

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\(^{48}\) Kant, *Kant: Observations on the Feeling of the Beautiful and Sublime and Other Writings*, 64.
must feel the same way, but instead to create an illustration. The night is dark, a lack of complete sensation, and this lack provides a situation that can fill a person with wonder. The daytime is full of light, illuminating everything not in shadow. During the day sensation is more complete creating more opportunities to respond to beauty. The sublime does not end with sensation, but uses sensation to send the mind to higher ideas. The feeling of beautiful ends with a dispassionate reaction to the sensation of an object. Kant reiterates, in *Critique of the Power of Judgement*, the idea that beauty—not the sublime—relies on form.

The most important and intrinsic difference between the sublime and the beautiful, however, is this: that if, as is appropriate, we consider first only the sublime in objects of nature (…), natural beauty (…) carries with it a purposiveness in its form, through which the object seems as it were to be predetermined for our power of judgement, and thus constitutes an object of satisfaction in itself, whereas that which, without any rationalizing, merely in apprehension, excites in us the feeling of the sublime, may to be sure appear in its form to be contrapurposive for our power of judgement, unsuitable for our faculty of presentation, and as it were doing violence to our imagination, but is nevertheless judged all the more sublime for that.49

Beauty is in the form of an object but sublime is not contained in the form. The feelings of sublime take the mind away from the form ‘doing violence to our imagination’. Imagination is reliant on past sensation to create a mental representation of something that may or may not exist. The sublime comes out of sensation, but is not directly related to sensation. That is what is meant by ‘may to be sure appear in its form to be contrapurposive for our power of judgement’. One cannot simply judge something to be sublime; one must be inspired by something to feelings of the sublime. The sublime is beyond the senses, “Thus nothing that can be an object of the senses is, considered on this

49 Kant, *Critique of the power of judgement*, 129.
footing, to be called sublime”.\footnote{Ibid., 134.} Upon this observation, it can be determined that the less an object presents in sensation the greater the possibility to create feelings of the sublime. Later in *Observations on the Feeling of the Beautiful and Sublime*, Kant states; “The sublime must be simple, the beautiful can be decorated and ornamented”.\footnote{Kant, *Kant: Observations on the Feeling of the Beautiful and Sublime and Other Writings*, 69.} Simplicity allows the mind to reach these ‘lofty sentiments’, but decorations and ornaments distract the mind with feelings of the beautiful which end in satisfaction.\footnote{This is very similar to the thoughts of Loos who rejects the improper use of ornament. Neutra may have been influenced by Loos, who was influenced by Kant on this issue.} Neutra makes a similar statement in terms of smooth as opposed to rough.

Over an even surface, our tactile and our visual senses can move without abrupt changes in innervation, just as a skater glides over smooth ice. Bumps or holes in the ice make skating less pleasant, because sudden and irregular nervous adjustments become necessary. If such external obstacles to steady nervous processes occur at rhythmic intervals, however, their effect seems more pleasant than that of irregular and haphazard interruptions.\footnote{Neutra, *Survival through design*, 93.}

In the same way as ornamentation, bumps on a surface can distract a person and keep their reaction limited to the agreeable or perhaps the beautiful. Smooth surfaces do not cause ‘nervous adjustments’, and therefore have the possibility to stimulate the sublime due to the simplicity of the surface. Neutra includes in this passage ‘rhythmic intervals’. Repetition can cause a surface, which otherwise has interruptions, to appear to be one continuous plane. If a pattern can be established, then an object can be regarded as one common system. A wall with repeating, evenly spaced and proportioned elements will appear as a checkered pattern, as opposed to appearing as individual, disconnected
elements. The existence of one window does not physically rely on any other window, but one mentally judges it to be a part of a system that dictates its necessity. This is not because of any law in physics, but because of the continuity of the psychological system presented in the pattern of the wall. Neutra’s Los Angeles Hall of Records is a good example of this idea.

The louver and window arrangement creates a repetitive system that makes the whole face appear as one continuous plane, despite the fact there are many distinguishable pieces that make up this façade.

**Figure 27.** Los Angeles Hall of Records designed by Richard Neutra. Picture from [http://www.lasavvytours.com/Los_Angeles_County_Hall_of_Records_Richard_Neutra_civic_center.jpg](http://www.lasavvytours.com/Los_Angeles_County_Hall_of_Records_Richard_Neutra_civic_center.jpg)
Neutra indicates that he believes smooth, simple, and in short, the sublime is more desirable than decorated beauty. Neutra makes such an admission while discussing machine craft.

It is true that the machine has ruined handicraft. This, however, did not come about because, as Ruskin and Morris sadly noted, the first machine products were crude and primitive, but rather because the machine soon proved superior in precision, the quality that craftsmen had proudly regarded as their prerogative for thousands of years and that had inspired consumers with awe. The machine introduced an entirely new psychology of precision, by changing, and sometimes directly reversing, the accents. Thanks to it, irregular, imprecise forms have become unusual, and almost morbidly attractive.\textsuperscript{54}

Because craft has become easily precise due to mechanization, people tend to find irregular craft to be beautiful. Neutra brings to light the idea that people desire that which is uncommon. Prior to the industrial revolution, precise craft belonged to a handful of skilled craftsmen in various locations. Each had limited time to pour into each work, making truly good craft something to be sought after. Now, with the aid of machines, good craft has become common, and poor craft is uncommon. Later on, Neutra mentions that people tend to make deformed or slightly broken items on purpose in order to make them look as if they are old or from an ancient time, and therefore worth something. However, people in those times did not try to make errors in their craft and often had the skill to make very fine pieces of work. Neutra finds it morbid that one would be attracted to defective goods simply because they are unusual. A person only becomes aware of something through change. Certainly, imprecise forms can be more accurately noticed due to their irregularities, but being noticed is not always the function of an object. An

\textsuperscript{54} Ibid., 77.
irregular pot can hold water just as a smooth pot, but the irregular pot is more likely to
distract a person and cause that person to think about, or at least acknowledge, the
container. The regular pot, however, is more likely to be used without any thought about
the physical object, only the task at hand. The function of a pot is not to force itself into a
subject’s consciousness. Neutra would prefer a smooth object that does not cause nervous
tension. Similarly, regarding flooring materials, Neutra stated that

As for the producer’s claims and propaganda, it is obvious that they
cannot be taken at face value. Let us analyze an example of a common
builder’s supply item—linoleum called marbleized. First, a look at the
productional aspect. Flawlessly plain surfaces are harder to produce than
mottled ones, and thus the latter are found to cost less. ‘Beauty’ enters the
picture as an afterthought, when the manufacturer accidently discovers
that his product has the possible visual likeness to marble. This is what we
describe as pseudo-morphism. The manufacturer exploits the similarity by
advertising his linoleum as marble-like and marbleized; and then suggests
also a functional plus of this article: ‘dirt does not show.’

Even if irregular objects could have a purpose and be more efficient to produce, Neutra,
by the way he words his reaction, is still in favor of smooth surfaces. Likewise, Kant
finds the sublime to be more noble and respectable. The sublime takes the mind to
higher thoughts. The sublime has in it the potential to be extremely moving. “The
sublime must always be large, the beautiful can also be small”. Kant is not simply
referencing physical dimensions, but a measure of these feelings. The beautiful is, in
itself, somewhere between small and large in feeling. One can be overwhelmed by
beauty, but also, one can simply acknowledge beauty. One cannot simply acknowledge
the sublime. It is not a feeling of the sublime unless it elevates the thoughts to much

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55 Ibid., 92.
56 Kant, Kant: Observations on the Feeling of the Beautiful and Sublime and Other Writings, 65.
57 Ibid., 65.
higher topics like that of eternity. Sublime can be terrifying as someone observes a storm, but it can also be a feeling one gets when looking through a microscope and realizing how little he or she actually knows about the natural world. These types of thoughts are beyond simple imagination according to Kant. Imagination relies on past sensation to create new imaginings, but these thoughts are formless and cannot simply be conjured from past sensations.

In Neutra’s projects, both beauty and sublime are incorporated to some extent. He generally tries to design his projects in a way that a person can be taken from the house to the higher place of the sublime through a simplification of the building and exposing complex natural scenes. The Moore House in Ojai California focuses less on the interior spaces, and more on the mountains in the background.

**Figure 28.** Moore House in Ojai California, interior. Picture from *Life and Human Habitat* page 44.
The eye is drawn away from the furniture, and materials on the interior, through the window wall to the sporadic plants and finally to the mountains. It is difficult to ignore the mountains that fade into the distance, due to the fact Neutra designed this part of the house to not distract a person from the sublime setting. The architecture allows a person’s eye, and ultimately their mind, to slip past their immediate surroundings, and to have a sublime experience. Within the same project, landscaping is used to create a beautiful approach to the home.

![Figure 29. Moore House in Ojai California, exterior. Picture from Life and Human Habitat page 44.](image)

Multiple types of plants, as well as architectural expressions of form and materials, create a sensuous entry to this house. There are many different things to focus on in this entry sequence; however, there is no sweeping view or other element to clearly bring a person to the sublime. In the same project, there are examples of the sublime and the beautiful. The plantings provide something on which the eye can rest, and they set the scene to
create a feeling of the beautiful, as opposed to the sublime. This runs in contrast with the smoothness of the architecture that Neutra usually establishes on the interior of his projects.

The Milton Goldman House in Royal Oaks California has its own unique combination of the sublime and the beautiful infused in it. The smooth floor and ceiling, bordered by an almost invisible glass wall, lead a person to a pool of water that reflects the surrounding landscape. A subject can become enamored with the beauty of the foliage in the foreground and the reflections from the pool, or they can be elevated to the sublime by scanning the hills in the distance.

Figure 30. Milton Goldman House in Royal Oaks California. Picture from *Life and Human Habitat* page 57.
The outside is quite connected to the inside of this project and can be seen in many of Neutra’s other houses he designs. The Treweek House in Silverlake California also blurs the line between inside and out. The floor and ceiling planes are parallel and made of unremarkable materials. The window goes from the floor to the ceiling and does very little to catch the eye between inside the home and the view outside the home. The eye is able to slip past the foreground of the house into the potentially sublime background.

**Figure 31.** Treweek House in Royal Oaks California. Picture from *Life and Human Habitat* page 71.

In this particular case, the separation between the exterior porch and the interior living room is almost indistinguishable until one notices the carpet on the right of the window wall. The sliding door makes this blur in form even more evident with the physical connection between inside and out.
In this project, Neutra takes a similar approach as other projects in which the focus is not the home, but the experience in the home. The view that could lead a person to the sublime is not exclusively natural in this case, since the view is of the mountain and the building’s surroundings. This creates points in which beauty could be transformed into the sublime, depending on the time of day or the level of activity. The Lewin House in Santa Monica California also has a different take on the sublime. The view from this project is of the ocean, which is a slightly different approach to the sublime than Neutra generally takes. It still has the capacity to elevate the mind, although in a different way that relies more on the horizon and weather phenomena. The ocean, while it has the potential to be as smooth as the architecture that Neutra creates, has the capacity to

Figure 32.
Heyford House in Los Angeles California. Picture from *Life and Human Habitat* page 129.
change that Neutra enjoys in nature. The view of the ocean sets the scene to view the sky with its changing cloud formations, colors produced by the sun, and the rhythmic movement of the waves.

Neutra prefers smooth objects because they do not cause ‘nervous tension’. He believes a smooth object distracts a person less than a rough object, and that it is far better to match an object’s form to its function in utility or its function in aesthetics as opposed to merely making an object appear in perception. Kant prefers the sublime

Figure 33. Lewin House in Santa Monica California. Picture from *Life and Human Habitat* page 99.

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58 Recall the discussion in chapter two about change in which Neutra embraces nature’s way of changing in a positive way, from the perspective of a person.
because it lifts one’s thoughts away from mere sensation and up to formless thoughts. To Kant, the sublime is smooth, simple, and plain. Both men like this for similar reasons. Neutra likes simple, the sublime, as it works well logically in built projects. Using simple elements as opposed to highly decorated elements allows an emphasis on its function through form and possibly takes an occupant’s thoughts beyond the walls that supposedly confine the space. Kant prefers simple, sublime, situations because they stimulate much more important thoughts in a person. These experiences are much more impactful, as a whole, than beauty can be to Kant. Kant’s interest in the sublime is more abstract, while Neutra takes a more practical interest. This follows suit with the idea that has been asserted; ultimately, Neutra’s work is a practical application of Kant’s philosophy.

Neutra and Kant see judgement as a subjective action taken in order to determine some unperceivable objective truth in an object. This truth could be beauty, utility, or many other things. In each case, something is in an object to cause a judgement of beauty to be considered, but there is not just one sense that reveals beauty. Rather, it is a combination of senses and reactions that uncover a judgement upon an object such as beauty. Judgements such as beauty are not mutually exclusive; utility and beauty can exist in the same object, but beauty is not simply based upon the utility of an object.

Judgements upon an object can be affected by non-sensuous influences. The process by which something is created can alter the judgement on an object. A product that takes a great amount of effort to produce has more value than one that takes

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59 Formless thoughts (that is, pure ideas) are thoughts that do not have images inherently associated with them, such as the concept of infinity or being.
relatively no effort, even if the latter product has greater utility or is likewise superior in any method of comparison. The designer’s intention can direct judgements. If an architect designs an ambiguous space and then labels it as ‘lobby’, it is likely that it will become a lobby, at least for a time, despite the potential for the space to become many other functions. Past experiences and judgements can shape future judgements based on the relative success of these past experiences and judgements. If a decision to eat a plant in the woods did not lead to a negative experience, it is likely that the same plant will be judged later to have sufficient utility for future consumption.

Even outside the context of what a judgement is, Neutra and Kant agree on specific judgements. Both men prefer simple, sublime objects as opposed to decorated, beautiful objects. Beauty keeps the mind on the object itself while the sublime takes the mind to higher formless ideas. Irregularities and haphazard decorations can cause tension due to the varying amounts of stimulation, while smooth or simple objects free a person from an object forcing its way into a person’s consciousness.

Therefore, it is clear that, through this understanding of man, Neutra takes a practical application of Kant’s philosophy. It is important to Neutra to design for the client and in order to understand people in general as a base and to understand the individual to design the real product. Kant is clear that many judgements, behaviors, and habits of a person are subjectively grounded, and therefore are difficult to ascertain without knowledge of the subject. Neutra knows of this subjective nature and at the same
time how difficult it is to change a person’s subjective habits when they have been, by the client, misconstrued for objective grounds.
Conclusion

This thesis has shown that Immanuel Kant can be taken in the context of architecture and has been interpreted in this manner in the recent past by other critics. Not only can Kant be interpreted in the architectural field, but the ideas of Richard Neutra can be seen in a philosophical light. The fact that both men cross into each other’s respective field is the first step in determining that a comparison is possible.

Some of Neutra’s works, such as *Survival Through Design*, are at times, by Hines, referred to as philosophical. Many of his conversations and ideas can easily be classified in the realm of philosophy. At times, Neutra’s discussions seem to have more to do with philosophy in general than they do with architecture. Philosophical topics such as the legitimacy of free will and whether or not design is possible are discussed at length by Neutra in more than one publication.

Kant does not discuss architecture directly in most instances, but this does not prevent his ideas from having relevance in the architectural field. Kant discusses aesthetics, art, and many aspects of perception. As mentioned in the introduction of this thesis, a few architectural theorists attempt to make connections between Kant and historical and contemporary architecture with varying degrees of success. With this foundation, it is not unprecedented to look for Kantian influence in architecture, although this is the first time Neutra and Kant are analyzed in conjunction. With the possible
historical connection between Neutra and Kant, coupled with Neutra’s philosophical predisposition, this is enough of a base to launch a comparison of ideas.\(^1\)

Neutra documented instances in which he has come into direct contact with Kant’s written philosophy. Thomas Hines mentions that Neutra enjoyed reading *Critique of Pure Reason*, as stated earlier in the introduction chapter.\(^2\) Neutra himself recalls, in his autobiography *Life and Shape*, translating unnamed works by Kant for another individual.\(^3\)

These two instances could have allowed Neutra the opportunity to understand and apply Kantian ideas, however, this thesis brings forward the possibility of secondary Kantian influence through persons whom Neutra had contact with. Adolf Loos is the most promising example brought forward in the introductory chapter. Adolf Loos, himself, has promising Kantian ties in is written works, especially concerning ornamentation. It could be possible that people, such as Adolf Loos, have expressed ideas that originated with Kant and imparted these ideas to Neutra early enough in his life to significantly impact his career.

With the architectural applications of Kant and the philosophical tendencies compounding themselves with Neutra’s direct and indirect exposure to Kantian ideas, this thesis establishes a base from which to evaluate the ideas of Neutra to determine if they

\(^{1}\) Again, it is not necessary to prove a historical connection linking the two individuals in order to compare their respective ideas and work, however, the historical connection can help to frame any possible influence in the development of Neutra’s design mentality.


are drawing on Kant. This thesis concludes that the systematic agreement on the part of Neutra on topics presented by Kant is enough to say that Neutra used Kantian ideas in his written works and in his built works. Neutra used Kantian thoughts pertaining to sensation, perception, and judgement in the design process as well as in his written works.

As discussed at length in chapter one of this thesis, both Neutra and Kant understand the absolute necessity of the senses. Sensation is the first step in the process of understanding the world. Both individuals know that the senses provide the first impression and that all things, including illusions and imagination, come from some variant of rules set in sensation. Neutra uses this to understand the physical inputs he provides to a person when he designs a project. Both men agree that one would know nothing of consequence without the senses. The senses provide a base for understanding the world. The mind cannot perceive something without at least using sensation as a medium.

It is not entirely surprising Neutra would trust sensation for meaningful information. This could be in part due to the influence of Kant. Kant makes a case for the inclusion of the senses for understanding one’s surroundings. Neutra tends to take on a scientific and psychological perspective on many architectural issues, which relies on sensation, as described by Kant, and at times mirrors specific concepts discussed by Kant.

Neutra takes design for the senses very seriously. He attempts to account for all senses in his projects. Sight is traditionally the most important sense in architecture.
However, Neutra also takes into consideration tactile sensation with the texture of materials, the touchable space around a subject, and the thermal comfort of a person in a building. The area immediately around a person can be much more impactful in an experience than large dramatic spaces out of reach. Space near a person has a sense of intimacy and a feeling that a person can take control of his or her personal space by altering objects around him or her. Neutra also mentions other senses such as taste in regard to his childhood and reflecting upon early encounters with architecture. This focus on all of the senses follows Kant’s idea that all of sensation creates the base for perception, not just one sense. Neutra goes even further and uses scientific knowledge of his time to conclude there are ‘millions of senses’, and that each of these senses work together to create one Gestalt. Usually, the senses are divided into five categories, however, Neutra subdivides these categories into smaller divisions until he reaches individual sensory receptors on a cellular level. Neutra understands that touch sensors in the hands work differently than in the face and different approaches to design must be taken to consciously design for these differences. From Kant’s philosophy, while perception can diminish over time, there cannot be less than a whole perception. If a particular sense is not designed for, it will still function in reality and will react unpredictably to a poorly designed situation.

Likewise, not only the physical senses and sensory inputs matter in creating sensation, but also the physical orientation of a subject. Neutra is aware that the way in which a person approaches a project determines not only what that person can see or sense, but how they will sense a situation. Neutra’s heavy use of landscaping can be
taken as evidence of how he designs for particular orientations of a building which in turn orients a person. This reflects how Neutra uses Kant’s ideas, as he asserts that the orientation of a subject in the mind and in space is necessary.

Neutra is quite meticulous in his planning for specific clients and similarly, he is very thorough in his planning for sensation. He even accounts for factors that may cause cancer during a time in which medical knowledge was more limited, and in which cancer was not as much of a public issue. This is not to say he does not design for perception and judgement. Neutra recognizes that if something has no sensory impact, even in the distant future, it has no bearing on design. This idea comes from Kant, who states an extremely similar view on un-sensible sensation. If a force is not able to be sensed, it does not necessarily exist.

Even though Kant discusses sensation to a great extent, primarily, through *Critique of Pure Reason*, and Neutra writes about the senses in all of his major works, both men know that sensation is not the end result. Although both believe the senses are irrefutable in themselves, Kant says that the senses do not err because the senses do not judge. For his part, Neutra likes to mention sensory receptors and the million fold senses in almost every book he wrote. Both men know that sensation is only the beginning to a much more important topic concerning perception. Chapter one references perception as the next step following sensation and chapter two discusses perception and its ability to alter sensation.
Beyond the limited objective reality that knowledge of the senses provides, Neutra seeks to understand how the mind will alter sensation through perception. Neutra utilizes many Kantian ideas while discussing architecture, and while designing for his clients.

While perception begins with the inputs that the senses provide, Kant and Neutra are aware that perception can change without a modification in sensation. According to Kant’s theory of negation, mentioned in chapter two, sensation can diminish over time when the physical sensation does not change. This idea follows with the idea that is embraced by both individuals that all that can be known is change. Neutra takes this observation from Kant, in the context of cause and effect and applies it in the context of his theoretical project, Rush City Reformed.

Neutra takes this idea far enough to say that, as a designer, one should never design for a ‘static situation’. Neutra knows that all things are constantly changing, and he states that the architect should account for these changes in design, not work against them. Neutra makes many observations concerning nature and concludes that the natural world is a much more dynamic source compared to the built environment. For Neutra, people are much more able to accept and enjoy phenomena caused by nature and phenomenon in nature including changes. This acknowledgement that nature is a positive force of change could be a reason why he attempts to create elaborate landscape schemes around his projects and carefully orients large open views to connect a person to the outside world, while still being inside the home.
Kant has much to say about the cause and effect relationship. For Kant, cause and effect is one of the mental categories in which he believes all people use a deep subconscious level to understand the world around them, whether or not the relationship actually exists in reality. Kant makes it clear that cause and effect actually happen simultaneously and cannot be separated by time or anything else. He also makes the point that the cause and effect relationship is very complicated. It is a matter that is neither infinite nor finite in its explanation. Neutra makes a similar point when he says that all cause and effect relationships are really made of millions of smaller relationships. The way he breaks cause and effect into an unmanageable large number makes the same point as Kant, whereby Kant says cause and effect are neither infinite nor finite. Both see cause and effect as essentially a finite relationship that has a beginning and an end, as far as one phenomenon can be concerned, but the number of relationships that go into even one simple change can be so overwhelming it may as well be an infinite amount. Neutra ultimately determines that people use their minds to fill in the unknown details surrounding a cause and effect relationship, leaving each relationship whole, for the sake of judgement, but incomplete in reality.

Sensation is completely useless, in itself, without perception. For Kant, “It is, therefore, quite correct to say that the senses do not err, not because they always judge correctly, but because they do not judge at all.”⁴ Neutra does not have an equally impactful statement on the role of the senses as Kant has, but he takes to discuss Gestalt

principles and other ways in which the mind can change sensation and even perception before arriving at a judgement upon a situation or an object. Ideas such as negation contribute to the mind’s ability to interpret and change the sensory inputs provided by the surroundings. Incomplete forms that are connected in the mind are a part of a practical view of Gestalt in architecture for Neutra. Neutra is very interested in each detail, including the color of the inside of a closet. Both Kant and Neutra agree that sensation is reliable, but perception is the mind’s subconscious representation of sensation. Perception is on the surface and perception is what judgement is based upon. Therefore, Neutra attempts to understand objects in terms of the senses, perception, and judgement.\(^5\)

Neutra knows that what he is ultimately designing for is the judgement of his clients upon the projects he creates. The information that is gained by the senses and interpreted through perception is only important in the judgements they solicit. Neutra uses Kantian thoughts pertaining to judgement to effectively tune his judgements, so that he can successfully design for his client’s prospective judgements concerning the project he designs for that client.

For Neutra, the ability of the conscious and subconscious mind to change or even completely override sensation in perception is a very important tool in architectural creation, and it is also a significant topic in the writings of Kant. Gestalt theory can alter sensation subconsciously and create a new, whole perception, but there are other ideas that can alter perception in the translation to judgement. Ideas pertaining to reflection can

\(^5\) As mentioned in chapter three, Richard Neutra discusses the production and appearance of marble tiles, and how one might judge the state of their cleanliness.
explain how an experience can be reinvented and how future judgements can be shaped accordingly. Kant presents reflection as thinking before feeling. Reflecting upon an experience adds no new sensation, but it changes the feelings surrounding it by utilizing thought. Reflection builds into the general concept of experience, which can change how an individual perceives an object or event and how they judge or react to that object or event. Painters have a different appreciation for works of art than the common person because of experience. Knowledge pertaining to different brushstrokes, proportions and types of color, style, subject matter, etc. all build into a judgement about a painting. A person who is unfamiliar with any of these things cannot perceive the painting in the same way. The process by which something is produced becomes a part of the perception and consequently the judgement of an object. This idea is more specifically recognized by Neutra and Adolf Loos. Neutra acknowledges the relationship between the production of an object and its perceived worth, yet Loos makes further observations; he recognizes that the longer something takes to create, the more highly it is valued. If something is produced effortlessly, it has less value, independent of its physical quality, in terms of function and aesthetics.\(^6\) Intention is another non-sensuous force used to alter perception that is discussed in this thesis. By simply stating intention, one is essentially offering a premade judgement to be borrowed by another subject. Intention cannot completely cancel all sound judgement, but it can be quite powerful depending on how close intention matches initial judgement.

\(^6\) This is discussed at greater length in chapter three.
It is important to know not only a subject’s physical orientation, but also their mental orientation. Physical orientation limits and controls sensation. Framing views, creating paths, using smooth or rough materials, etc., are all examples of how Neutra orients a subject physically. Mental orientation limits and controls perception and judgement. Extensive experience can limit one to see the object in the same way each time; guided reflection can guide judgement to a predetermined destination, by exposing or concealing the process; value can be added or retained in judgement; and stating intention can directly translate into a borrowed judgement. Judgement leads to action, feeling, and thought, therefore mental orientation is actually more crucial than physical orientation, even though sensation initially provides the base for perception and judgement. Both Neutra and Kant spend much more time discussing how human perception is formed and how this results in positive and negative judgements.

In chapter two, Kant is referenced to say there are three things that need to be assessed in any situation; the subject/person, the object, and the context. For Neutra, knowing the subject or client is very important. As mentioned in chapter three of this thesis, Neutra concerns himself with humanity as a whole, as well as the specific individual. There are principles that apply to all people, such as Kant’s categories and Gestalt principles. Neutra also cares about social tendencies and phenomenon. While Neutra cares about the general psychology of mankind, he cares mostly about the individual client and how that person will react. For Neutra, human reactions are the most important part of a design. Everything he does in a house ultimately has the occupant in mind. With this great concern does not come an overbearing, controlling attitude; instead,
Neutra encourages the client to design their own life so that he can design a house to fit and encourage that lifestyle. He knows that each person is certainly different in many noticeable ways. Allergies, habits, physical size, inclinations, hobbies, and career interests can all impact the form, function, and material choice in a home. Neutra does not simply guess what is important to a client, but instead engages in extensive communications and even uses a questionnaire detailing daily routines, likes and dislikes, activities, etc. He does not necessarily adopt the stance; ‘the client is always right’, but he does feel the client is the primary source of inspiration for a project. When he designs public projects, the client becomes humankind as a whole, and consequently relies more on general psychological and philosophical principles as opposed to a questionnaire.

Kant and Neutra are aware of the tenuous relationship that results when one person attempts to predetermine the judgements of another. Kant says that, in all situations, the first person is the judging subject. That means that Neutra is a subject who is attempting to judge for another subject, before the other subject has made a judgement. This is why Neutra goes to such length to understand his clients. He does not share their specific senses, experiences, values, etc., but he can attempt to learn as much as he can before making his own judgements to create a design. Other architects might assume their own judgements are interchangeable for the client’s judgements, or that their own judgements supersede the client’s judgements and expectations. However, Neutra is much different in that respect.
For Neutra, the physical context is also very important. In Neutra’s *Mystery and Realities of the Site*, he gives many tips on how to handle the context of neighbors, natural context, and interior context. For Neutra, there is also a relationship between person, object, and context. The person is the client, as previously discussed, the object is anything that is being focused upon, and the context is everything else in the background. Neutra knows anything could be the object of focus such as a tree or a neighbor’s house. If he designs in a careful and controlled way, a person will not focus on an object such as these in a negative way. Equally, landscaping and neighbors could become a part of the background if these things are not strong enough to become predominant features. The background contributes to the experience of the object. This is similar to Kant’s idea that all things add to a complete whole. The object is not the whole, but becomes a whole with the inclusion of the context. In this way, even the whole project that is being designed is context at times. It can be a backdrop for many of the activities Neutra programs into his various projects at the request of his clients. Material arsenal is then very important to Neutra to make things appear and disappear as objects or as context in his projects.

On the subject of judgement itself, Neutra and Kant come to similar conclusions. Both men periodically discuss the nature of beauty. It is certainly common for an architect to discuss aesthetics and to say that an element is beautiful, but if it is done in a certain way or made out of a certain material it is no longer beautiful. Neutra is different

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8 This is a reference to the discussion earlier in the body of the thesis concerning rough and smooth in chapter three.
in the sense that he has a more philosophical view of beauty, in a way that is comparable to Kant’s ideas.⁹

Kant and Neutra both see beauty as not being directly perceived. This echoes the idea that perception and judgement are not simply direct sensation. For Kant, beauty is a judgement based upon perception, which is based upon all of sensation with other mental influences. Neutra states that to see beauty requires an aggregation of all the senses available to a subject. He says that there is no ‘sense’ of beauty like there is a sense of touch or smell; rather, he implies that one judges something to be beautiful upon mostly empirical and instinctual grounds.¹⁰

Likewise, Kant and Neutra both discuss function.¹¹ Neutra concludes that the saying ‘form follows function’ is backwards in reality. Function arises out of the physical form that has been created. This follows Kant’s treatment of function as a judgement of the usefulness of an object. As previously stated, judgement is based on perception, which is based upon sensation. Both Kant and Neutra understand that function and beauty are disconnected judgements. Because something is functional does not mean it is also beautiful, and similarly, if something is beautiful does not mean it cannot be functional.

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⁹ This idea is discussed in more detail in chapter three of the thesis.
¹⁰ Beauty is a very instinctual judgement that, according to Kant, relies on the subject’s taste. Taste is supposedly a real ability to judge, innate in everyone to some degree. For Neutra, deficiencies, or at least differences in the senses, could contribute to a sense of ‘taste’.
¹¹ As mentioned in chapter 3, Neutra explains that form does not follow function, but instead function is a judgement upon a form that certainly follows the physical creation of the form. Any judgement on a form that does not exist yet comes through the imagination, which is based upon sensation and consequently perception, but allows the mixing of possibility and reality as opposed to judgement on a form that does exist which only permits reality and excludes possibility.
Neutra and Kant have similar ideas concerning the sublime and the beautiful. The beautiful to Kant is still a positive thing; however, it is superficial and does not stimulate deep thought. The sublime is formless and raises the mind to higher ideas of eternity. Kant and Neutra see beauty as decoration. Neutra tends to avoid ornamentation in his projects, but still looks to infuse beauty into his works with the aid of nature. This is reminiscent of the Kantian phrase equating nature and art, which seems to embody landscaping perfectly. Neutra does not mention the sublime by name, but does make a distinction between smooth and rough that could be taken in parallel with the concepts of beauty and sublime. For Neutra, smooth objects do not distract a person and allow him or her to think of much more important things, as opposed to the surface of a wall. This is not dissimilar from Kant’s perception of the sublime, in which it is not the sensation that causes the phenomenon, but the lack of sensation. Neutra uses smooth surfaces to allow the occupant to reach ideas of the sublime in the surrounding landscapes.

Beyond simply stating ideas that draw on Kantian origins, Neutra applied these ideas in his built works. His theoretical project, Rush City Reformed, has been referenced in regards to Neutra’s understanding of cause and effect. The project shows that Neutra understands the importance of change in the formation of perception. The application of Kant’s ideas does not stop at paper architecture, but continues into projects that are physically built. The Kaufmann Desert House responds to Neutra’s Kantian knowledge of change and negation through the avoidance of static situations in architecture. He

13 This idea is explored further in chapter three.
utilizes large windows and extensive landscaping to create a dynamic situation, that Neutra believes is healthy and what humanity needs and ultimately wants. Large window walls take the focus off of the wall and let the eye move from inside the home to outside where the surrounding context can be a dynamic source. The landscape changes with time, and as the sun moves across the sky, the light levels and conditions change the character of the interior. He uses repetition in louvers and form for functional applications, as well as to preserve the continuity of the whole, in line with the idea that repeated objects can appear as one system. The Kaufmann House shows the obsession Neutra and Kant share for the smooth and the sublime. He designs the home with smooth surfaces in most cases, and directs more attention outward, toward the vast landscape in the distance. This is very much in line with Kant’s description of the sublime, where details or ornamentation do not get in the way of allowing the mind to contemplate ideas that are beyond mere sensation.

Repeating elements on a facade are not exclusive to only one project by Neutra. As mentioned in chapter three, large public projects, such as the Los Angles Hall of Records, often use rhythmic elements to create a pattern that implies a singular whole. By using Kantian ideas pertaining to perception and judgement, Neutra is able to create forms that have many different parts, but that together read as one simple and effective whole. In the case of the Los Angles Hall of Records, in particular, the façade relies on a series of repeating louvers and windows for controlling view, light, and the perception of the building.
Within the programmatic organization of Neutra’s projects, he still adheres to Kantian principles, since he understands that each piece is not independent, in and of itself, but forms and functions together as a whole. Floor plans from the Lovell Health House have been analyzed in terms of David Leatherbarrow’s understanding of Kant’s philosophy, programmatic arrangement, and perceived intention in chapter two.

This differentiation and continuity of space in Neutra’s projects interpret Kantian thought more diversely than simply programmatic arrangements. In the case of the Pitcairn House, differing materials create separations and connections between spaces, while in the Tremaine House, different materials are not the driving factor, but the formal alterations made to the ceiling plane in each space define their separations and connections. Physical boundaries within reach and out of reach, made of different materials or similar materials, first work to provide the client with specific sensory information intended by Neutra, which gets transferred to intended perceptions due to Neutra’s knowledge of Kantian ideas and modern psychology, and the client ultimately arrives at the desired judgement on the project. This judgement is not something that Neutra determines on his own, but instead he ‘interrogates’ the client in order to encourage the client to design their own life.

Kantian thought shapes the way in which Neutra frames his projects to include ideas pertaining to the sublime and the beautiful. Through Kant’s understanding of sensation, perception, and judgement, Neutra is able to more accurately design for his clients. Evidence for this is seen in his written works as well as in his built works.
Without the context of Kant’s philosophy, the ideas of Neutra would not make as much sense. The potential Kantian origin of what he says and does provides much insight into the process by which he designs. No one particular element in a building could be outright called Kantian, in Neutra’s projects or otherwise, however, the why each element is used in the way that it is has a Kantian flavor that is unmistakable. Kant does not provide a physical array of architectural elements and instructs a designer in their use, as someone such as Palladio might do. Instead, Kant provides ideas to help a designer understand and manipulate the world around them. It is much more significant that Neutra says Kantian things in his writings.

This thesis provides a philosophical lens to view the works and ideas of Richard Neutra. Many other authors focus on the psychological or architectural aspects of Neutra, however, this thesis exposes driving philosophical concepts in Neutra’s written works and the applications in his built projects.

Further investigation into this topic could include historical inquiry to further expand this philosophical comparison. Finding any amount of written evidence by Neutra discussing any work by Kant and what he thought of any Kantian idea would be immensely significant. His exposure to Kant would likely have been earlier in his life while still in Europe. From the evidence in Life and Shape presented in the introductory chapter, Neutra would have been exposed to some unknown work of Kant as he leaves Europe for America, as well as specifically reading Critique of Pure Reason as mentioned by Thomas Hines.
Other philosophers mentioned by Thomas Hines ought to be investigated in conjunction with Neutra and with Kant in the background. Analyzing Spinoza, Schopenhauer, Emerson, and Bergeron, as mentioned by Hines, might add to the idea that Kant heavily influenced Neutra. While Nietzsche was dismissed by Neutra, his works were read by him and might have provided another early influence leading Neutra to psychology as a serious application in architecture.
Introduction Bibliography


Chapter I Bibliography


Chapter II Bibliography


Chapter III Bibliography


Conclusion Chapter Bibliography


