# An Aesthetic Approach To Place Making

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# Abstract

In the world of design today, aesthetics is considered secondary to programming, ecology, and the given social needs of the current time. This thesis examines the need for aesthetics as an integral part of the programmed landscape. The significant push toward process-oriented, sustainable landscapes that look like their intended function should be counterbalanced with an understanding and prioritization of aesthetics.

The theory behind this thesis is centered in judgments of taste. Judgments of taste occupy the area where subjective interpretations of beauty overlap the normative interpretations of the world. This is the focal point of this study because it gives legitimacy to what was once thought a purely subjective realm. This zone affords the ability to have the best of both worlds, creating subjectively universal judgments. There is currently a need for designers to seek a balance between hierarchical, data driven observations and intuitive, internally driven sensations: judgments of taste allow that to occur.

Finding the balance between these zones is the first step in creating more holistic places, and holistic appreciation of the world is key to aesthetic perception. The science behind observation and perception is examined from a basic neurological standpoint as well as the relative design principles that are essential to understanding aesthetics. This area of the research concludes that while sensory-mental equipment is flawed and internal reactions differ, there are universally shared mental processes that lend validity to judgments of taste.

Balance between subjective and objective worlds that is so essential to good design typifies the aesthetic approach to place making. At the end of this thesis, the established balanced aesthetic perspective is used to analyze several landscape theorists and reveals a collection of variables that fit along a spectrum of normativity and subjectivity that is constantly shifting and changing. What happens when a designer drifts too far out of the zone of judgments of taste? Their creations become either too intangible to create in the real world or too inflexible to maintain a long life, loose fit principle.

# Dedication

I want to thank Stephen Robinson, who also loves learning, for all the support and love over the years. Special thanks to Heath Schenker and Elizabeth Boults, for listening, being excited about aesthetics, and helping me make this project the best I could. Thanks to Steve McNiel, for undying encouragement and enthusiasm, he is perhaps one of the best professors out there. I appreciate the amazing faculty and staff of UC Davis Department of Environmental Design, and every teacher who continues to pass on their passion for knowledge. And to Mom, Dad, and Dave for building the foundation and loving to laugh even more than I do. I couldn't ask for a better family.

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# Preface

I love learning, don't you? It might be my favorite thing to do, aside from laughing. I think it's important to know how things work and why. That's why I dove head first into a waterless pool last quarter to investigate the science and philosophy behind aesthetic perception and its effect on our ability to inhabit a place. When I hit the bottom of this pool, I passed out, and when I awoke, someone had written the word "jerk" on my forehead. In other (more boring) words, I had a preconceived notion about where this research would take me, but instead it taught me to never assume, to always seek balance, and to never stop questioning.

I spent the first several weeks of this project developing a hypothesis. I presumed that there were some universal truths to aesthetic theory, that these truths could be deduced and filtered through the lens of the landscape to reveal key guidelines in landscape design. Over the next 7 weeks of research and reading (a lot of reading), I pretty much found the opposite to be true: there is no universal truth in the realm of aesthetic perception. Notify the press! Ok, fine, don't notify the press, you're as unsurprised as I am. But, there is universal truth to a judgment of taste because it lies between the normative and subjective realms, and that is the genus loci of this thesis. The final 10 weeks of this project were spent developing a definition of aesthetics, exploring where judgments of taste come from, and how these judgments are applicable to the built environment.

I'm excited to share my findings and conclusions with you here. Call me a masochist, but I have an even deeper love of design now than when I started this research. If I had a year or two to write this, I would have delved fully into the psychology of perception as well as the nature of design and the elements of composition. Given the time constraints, I present here what I think is most important: a definition of aesthetics, its relationship to design, the connection between art/science and cognition/perception, and finally, an aesthetic critique of landscape architecture and those who make it.

The landscape architect, once the creator of beauty, is now the renaissance jack-of-all-trades: responsible for social justice, economic viability, and ecological sensitivity. Amidst the current-day push for prioritizing process, it's important not to forget that the roots of design lie in the fertile soil of aesthetics. The responsibility of designing spaces includes making people feel good, fostering functional interactions, and generally contributing to human and ecological health: in other words, providing aesthetic emotions. I hope one day, as we push toward more considerate design, I won't have to make a distinction between humanity and ecological health, as they are one in the same. But I digress; read on and let me know what you think.

# Introduction

The art of place making goes back to the beginnings of human culture where shelter and surroundings were not only designed for function but also enjoyment. This report investigates how the experience of a place has a great effect on the psychological well being of its inhabitants. Place making is an art, unique because it encompasses the functionality of a program, the visual experience, the emotional sensations, and the overall aesthetic quality of a place. It is objective and subjective, formal and informal, programmatic and aesthetic; striking a balance between these polarities is essential to the creation of timeless places.

Aesthetic perception is rooted in judgment and judgment is largely based on one's formative rearing, social upbringing, mental processes, and myriad other factors. It is not surprising that with such a multifaceted psychological contingency, design often neglects to address the depth of the mind's role in perceiving a place. It is worthwhile to call on some of the great thinkers to demystify the role of aesthetic judgment in history as well as some great scientists in the field of perception.

The first section of this report will illuminate the significance of judgments of taste and investigate the philosophical importance of these inner workings. Section two will expound upon the aesthetic relationship to design. Section three will define several aesthetic principles and illustrate how the mind seeks out problem solving for enjoyment, a result of cultivated perceptual sensitivity. Section four will delve into the senses that allow us to perceive these experiences, and the basic science behind them. Section five briefly ties aesthetic theory of the thesis together. Section six places landscape designers on the spectrum of judgments of taste in an effort to examine how aesthetics relates to the existing world of landscape architecture.

From these analyses I hope that designers may consider the necessity of aesthetics in place making, and the process and history behind this obligation. At a time when so many efforts are driven toward sustainable, process-oriented landscapes (that are more concerned with social justice, economic viability, and ecology), the look and feel of the landscape are easily tossed aside as superficial concerns. It would be a mistake to proceed down this route, as aesthetics and process are both equally important to the success of a landscape. Aesthetics are deeply intertwined with process and how people react to and respect their surroundings. Caring for the process means caring for the aesthetics.

Those with a passion for philosophy, art, or design will inevitably find this report just scratches the surface of a subject deeply rooted in evolutionary biology, social psychology, and conceptual art, to name a few related disciplines. However, I believe the field of landscape architecture needs more theoretical analyses, and this is my attempt at illuminating the influence our surroundings have on our lives and why.

# 1 Defining Aesthetics

*"From the perspective of philosophy, art is a danger and aesthetics is the agency for dealing with it." -Arthur Danto*

**In this section I will define aesthetics as the study of the nature of beauty, art, and taste. I will then expound upon that definition with the opinions of Hume and Kant and distill down a very large field of study to the subjective and normative zone of overlap called judgments of taste. Finally, I will provide a graph that illustrates judgments of taste and serves as the crux of this thesis. This graph will be the template from which we later analyze judgments of taste against theorists of the built environment in Section 7.**

**In its most basic form, aesthetics is the study of the nature of beauty, art, and taste and encompasses the judgments and critical views that surround these concepts.** Aesthetics is *not* the study of the superficial or the ornamentation; it is a subject deeply rooted in psychology and the science of perception. The question of what makes something beautiful is addressed by aesthetics, as well as the physical properties of that thing and the attitudes and emotions that arise around that thing. Aesthetics is strongly related to ethics in the sense that rights and wrongs do exist, but where we derive these judgments is profoundly rooted in our psyches and the interpretations of the surrounding world. Because moral justifications for beauty belong to the study of ethics, the focus here is on the psychological and moral content's relevance to aesthetic value.

The danger of taking a position on this topic is that there may very well be an endless amount of argumentation on the subject. The aesthetic branch of philosophy seems a bit fickle, as many philosophical notions are. If the study of aesthetics were to take on human form, it would most likely present itself as a two year-old child, continually asking why, rarely obeying orders, and frequently throwing fits. I address the incongruous character of this subject matter because it leads to a critical question about designing with aesthetics in mind, "Who are you to say what is beautiful and what is not?" The focus here will not be on defining beauty for beauty's sake, but rather the deeper relationship of aesthetics to the perception of the world around us. Let Hume and Kant clarify for us.

**David Hume** (1711-1776) believed that aesthetic judgments were completely different from moral judgments (which also happen to be largely dictated by feelings). He argued that value judgments are expressions of taste, rather than reasoned analysis and must be dismissed as subjective, idiosyncratic preferences (Miller, 1985). This is arguably the most common explanation for the origin of aesthetic preference. In many ways, claiming that there are right and wrong judgments of taste is somewhat oppressive. However, if we look at the grey area between right and wrong, we see that there are subjective judgments with a universal nature. This does not suggest it is all relative.

# Defining Aesthetics

For if 'it's all relative' and no judgment is better than any other, then relativists put their judgments wholly beyond criticism, and they cannot err. Only those who think that there is a right and wrong in judgment can modestly admit that they might be wrong. What looks like an ideology of tolerance is, in fact, the very opposite. Thus relativism is hypocritical and it is intolerant (Zangwill, 2007).

Some judgments of taste are in fact better than others, therefore we can dismiss the relativistic approach that could result from a discussion of Hume. What Hume does provide to this study is a simple definition of aesthetics, and some insight into how aesthetics have been dismissed by the scientific community; because judgments of art and beauty are expressions of taste, not necessarily reasoned analysis, and therefore subjective. But the notion that these judgments must be dismissed as idiosyncratic preferences is in error. Over the remainder of this section, Kant further clarifies why aesthetic judgments must not be dismissed.

**Immanuel Kant** (1724-1804) thought the perception of beauty and ugliness were intertwined with desire and the same cognitive faculties that we use for navigating our daily lives, "but so long as those desires are not intrinsic to the pleasure in beauty, the doctrine that all pleasure is disinterested is undisturbed" (Kant, 1928). He also suggested that judgments of agreeableness have general but not universal validity, whereas judgments of beauty are not subject to what people like or judge. **Beauty remains indefinable in any concrete sense, and the concept itself often results in an unfruitful argument.** There is no way to scientifically or philosophically say, this is beauty, deal with it.

**However, there are universal foundations that will guide the eye and create an aesthetic experience,** but that sensation may take many different forms depending on mental scheme with which the observer is equipped. Think of it like throwing a lit match onto the forest floor. The match and the flame will always be the same, but the effect is dependent on where the flame falls. The human perception will always be the same, but the effect will vary depending on the sensory-mental equipment of the viewer. This will be examined in much more detail in the Cognition & Perception section of this report, but for now we examine what Kant had to say about subjective perceptions and feelings in Critique of Judgment.

# Defining Aesthetics

**Kant's *Critique of Judgment*** (1790) addresses judgments of taste in the form of beauty and ugliness. These judgments are primarily subjective, which means they are formed out of feelings, and feelings are formed out of chemical reactions in the body. This muddles the objective perception of beauty because it removes our ability to create universal definitions. If everyone thinks and feels differently within their own minds, then it is not possible to create a hierarchical structure for the interpretation of beauty. Kant suggests if every one has his own taste, "this would be equivalent to saying that there is no such thing as taste, i.e. no aesthetic judgment capable of making a rightful claim upon the assent of all men" (Kant, 1928).

Nonetheless, Kant explains that subjectively universal judgments are possible because we share the same cognitive faculties that constitute pleasure in beauty (an aesthetic emotion). For Kant, the normative claim of a judgment of taste has its roots in the more general workings of our cognitive faculties, which we can assume others share (Zangwill, 2007). As we see *Figure 1.2*, there is a suggestion that **judgments of taste have some universal validity despite the fact that they are based on inner responses. They occupy a moderate place between judgments solely based on feelings and those solely based on observations.**

***Figure 1.1: Flame of knowledge catches on thirsty minds.***

## Defining Aesthetics

I created the illustration below to graphically explain the place judgments of taste hold in the greater scheme of observation.

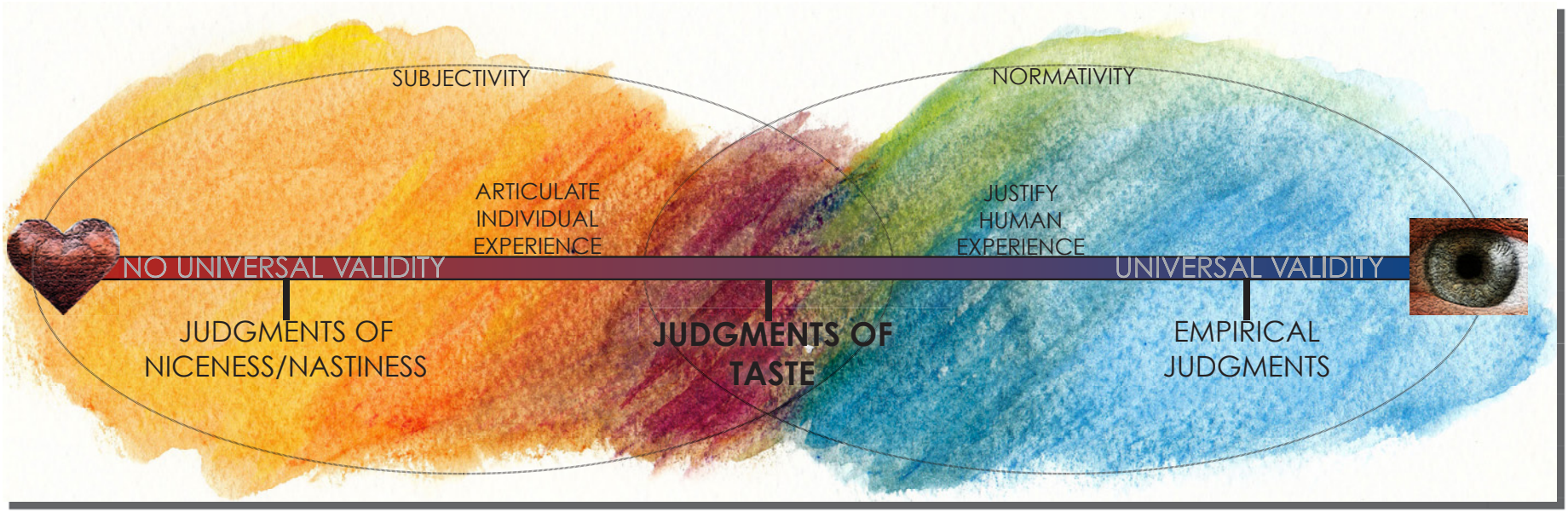



*Figure 1.2: Graphic of Spectrum of Judgments of Taste.*

**Sum it up!**

**The illustration of Figure 1.2 is the crux of our definition of aesthetics. Beauty is indefinable, but taste is not. The area where subjective interpretations of beauty overlap the normative interpretations of the world is our pot of gold because it gives legitimacy to a study once thought to only occupy the subjective realm. This zone gives us the ability to have the best of both worlds, creating subjectively universal judgments. What we have done thus far is establish a definition of aesthetics and identify judgments of taste as our area of interest. Judgments of taste are critical to the study of aesthetics because they allow for these subjectively universal judgments to take place.**

# 2 Aesthetics & Design

*"I believe in intuition and inspiration; at times I feel certain I am right while not knowing the reason." –Albert Einstein*

**In this section I will relate the philosophy of judgments of taste to the process of becoming a better designer. This occurs by becoming more aware of common perceptions, understanding the evolutionary underpinnings of the human brain, and heightening the imagination. This section concludes with the gestalt, and suggests that creating a framework for more effectively understanding our visual experience is the goal of aesthetic perception.**

The previous section left off suggesting that subjectively universal judgments are possible. Even in the face of having a "wrong judgment," we are willing to take the risk of making one in order to accomplish the work of design. This is not to say the content of this report gives the correct approach to aesthetic place making, rather it draws on the long and fascinating history of philosophical and scientific view points and attempts to synthesize the information into something relative to creation of space.

I would be remiss to approach the creation of space with overconfidence. The study of aesthetics should be used to criticize an experience in terms of appropriateness, not establish a universal truth based on practical reasoning. Appropriateness itself is subjective and determined by societal values. To judge a place in terms of appropriateness, one must find the balance between hierarchical observation (left of the spectrum) and subjective feelings (right of the spectrum) See Figure 1. Practical reasoning tells us what to feel or do, not what to think (Scrunton, 1979), therefore we are not dealing with true and false judgments. It would be impossible to introduce objectivity into aesthetics because the conversation will always result in an experience, which is by its very nature subjective. So how do we begin to create design guidelines based on aesthetics?

Scrunton, like Kant, claims if there are no rules for aesthetic judgment, then there can be no rules for building, and so no architectural laws, besides those of function and stability (Scrunton, 1979). This brings us back to the moderate place occupied by judgments of taste. This is why judgments of taste work, because they are held in neither extreme, they are balanced between the objective and subjective. At the current time in history, there is a significant push toward process-oriented landscapes that look like their intended function. As designers, we have to **seek a balance between those hierarchical, data driven observations and the intuitive, internally driven sensations**: judgments of taste allow us to do just that. For most, the internal aspect is more difficult to comprehend. Knowing where those feelings originate can help in the process of becoming a more well rounded designer.

# Aesthetics & Design

It is worth noting that because we all share a common ancestry, there is a great deal we share in the realm of perception. Some human behaviors have perpetuated themselves as far back as archeologists and historians have been able to discern. The struggle for survival, the sensation of hunger, the need to perpetuate the species; these are all elements of the human condition that reveal themselves on a daily basis, making it "universal" to the human race. As part of this same cognitive process, we make observations, pass these through various cognitive filters, and create a response based on the chemical reactions that ensue. We are reliant on our observations passing through this network of cognitive filters. Over evolutionary history, the most efficient filters belonged to those who survived. Therefore, much of our perception is based in these instinctual behaviors, however muddled they may be with social surroundings and cultural upbringing.

This muddling is a big part of the problem with aesthetics as a study. We have made its explanations reliant on language when the topic of aesthetics is truly intangible and does not lend itself to being described with words. Laying down a list of rules for aesthetic design would be like trying to write an essay describing music to someone who had never heard harmonious sounds. It is a worthy attempt, but it will not allow one to truly experience the sensation of music. This study is attempting to draw closer to the muddy area of intuition, but it will not achieve what one is capable of communicating with the self, without linguistic limitations. Therefore, we need to be more attuned to our innate sense of self in order to experience place.

This illusive intuition is attainable, just not very describable. Thankfully, that innate sense of self has recently gained a validated place in science, as will be explained in the following section Art & Science. Suffice it to say for now, as designers, we need to be more attuned to human nature in order to create effective places. This relates to moral philosophy in the respect that **the more one is in tune with the senses, the more readily one will be able to draw on instinctual sensations of right and wrong**. The better able one is to tap into innate human nature, the more universally applicable the design will be. I refer to this as considerate design, taking into account primal nature's sensation of being in a place. Incorporating this into scientific observations and programmatic needs is where seamless integration becomes difficult. The first step involves moving away from the ego and seeing one's small role in design is key.

# Aesthetics & Design

Considerate aesthetic design incorporates tapping into the senses as well as the imagination. Knowing what it will feel like to be in a place before that place exists is an essential skill that must be cultivated. "Too often, we expect students to produce art products before we teach them how to get ideas for the products. A few are intuitive enough to do it well. We wonder why most of them tend to borrow from others, why they copy, and why we get junk unless we show them an example" (Bartel, 2006). There is a lot of current discussion that we, as a society, are training our youth in practical skills that will get them jobs, but this practice is resulting in a generation of lawyers and businessmen lacking the problem solving skills to create viable solutions to the problems that the rapidly changing world is presenting.

So how can imagination be fostered? The answer to this may be in designing curriculums that blend imitation with innovation. When we're young, our brains are flexible and open. As we age, our neurological paths become more fixed. Inundating a flexible brain with an education that encourages divergent, imaginative thinking, un-reliant on copying the work of others will lead to a more flexible adulthood, when **a lifetime of acquired information can be combined with inventive thinking to generate true considerate design.**

Another hurdle in fostering imaginative thinking is the philosophical nature of aesthetic subject matter. The aesthetics movement itself was elitist, separating the study from the needs of every day life. If the movement itself didn't concern itself with the relationships to everyday happenings, it's no wonder that people don't regard it as a priority today. It is considered secondary to programming, ecology, and the given social needs of the current time. Even though aesthetics will always compete poorly with utilitarian needs (de Botton, 2006), shouldn't one of those functions be to provide pleasure? The Greek philosopher Epicetus said, "If you really understand what governs the universe, how can you yearn for bits of stone and pretty rock?" (deBotton, 2006). But the bottom line is that the aesthetic experience provides pleasure, pleasure creates a sense of well being, and well being is vital to living a happy life.

With this in mind, **we have to be open to the idea that our surroundings have an effect on us.** For example, a pretty garden may not directly solve the myriad problems of urban living, but it may teach us how to care for plants, how to pay attention to those needs outside ourselves, and how to love the act of providing. This may indirectly affect urban issues by increasing people's care response, decreasing violence, increasing community connection, and so on.

# Aesthetics & Design

*Figure 2.1: Farm Field Versus Bagel Garden.*

If we imagine landscape transformations to be like a pendulum, with one end being pure function (i.e. a farm field) and the other being pure form (i.e. Martha Schwartz's bagel garden), then we can see a trend of transitioning from form to function and back again. The aesthetic ideal is not one where the pendulum lies stagnantly in the center, rather one that allows the user to experience place for both form and function, both separately and together. It is modular in the sense that it allows for growth and development while being attentively designed to suit the programmatic needs as well as the stylistic preferences that come and go with the times. The goal is to create an ultimate "mash-up," to use a trendy term.

# Aesthetics & Design

A great mash-up is now, to use to words of Peter Smith, a gestalt, "a holistic appreciation of the world in which an infinity of interactions produces monumental uncertainties" (Smith, 2003). To make order out of disorder, to create simplicity out of complexity; these are the principles that guide the process of enjoyment. The whole can be greater than the sum of its parts. **Creating a framework for more effectively and efficiently understanding our visual experience is the goal of aesthetic perception.** Consider comedy: the funniest jokes are ones that are simple enough to comprehend the punch line, but complex enough to require some thought in putting the pieces together.

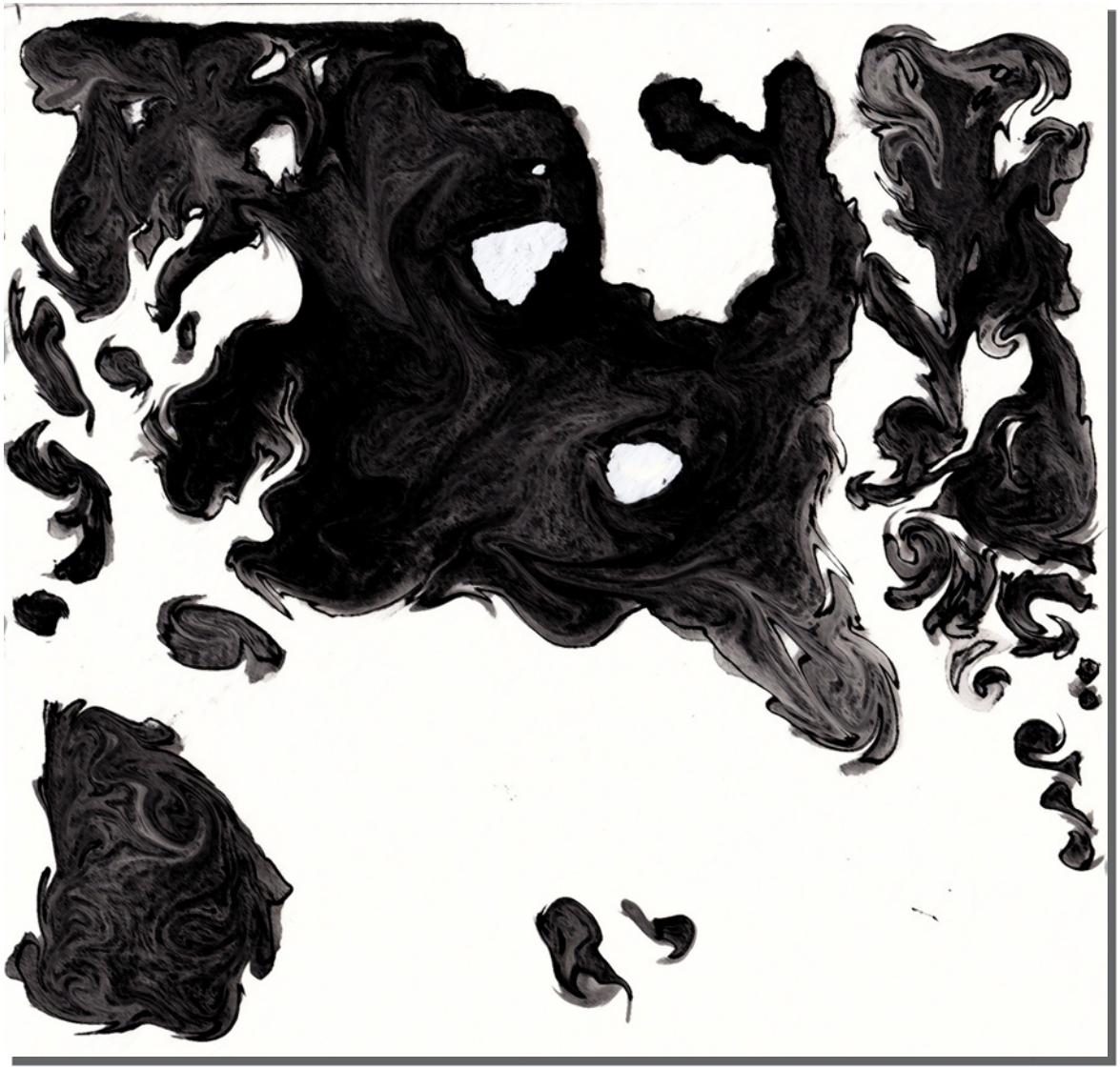


*Figure 2.2: Do the pieces come together to form the face of a man?*

**Sum it up!**

**The philosophy of judgments of taste is relative to the process of becoming a better designer through: 1. heightened awareness of common perceptions, 2. comprehension of the evolutionary underpinnings of the human brain, and 3. heightened capacity for imagination. Comprehending the small role one person plays in the world of design, understanding the evolutionary cognitive process, and exercising the imagination will make that person a more considerate designer. By the very nature of taking these steps, one becomes a more aesthetic designer because one becomes more balanced. Striving for balance toward the left of the spectrum (Figure 1) evolved out of the current trend of designing with a bias toward the right of the spectrum. The balance of becoming a more holistic designer is the first step in creating more holistic places, and holistic appreciation of the world is key to aesthetic perception. The gestalt is the whole, and putting individual pieces together to create a framework for more effectively understanding our visual experience is the goal of aesthetic perception.**

# 3 Art & Science

*"What the creative act means is the unfolding of the human psyche in the sudden realization that one has taken a lot of disconnected pieces and found a way to put them together."* *-George Nelson*

**This section will illustrate the interconnectedness of art and science. I will elaborate on the gestalt and explain how putting the pieces together to create a greater whole results in a pleasurable aesthetic emotion. Several laws of aesthetics will be defined and illustrated to enhance the understanding of aesthetic emotions. The relationship of art and science, which comes from their shared acute pattern recognition, will be illustrated in these definitions. These principles will be used to explain how we group things together in order to create a more organized world, thereby hindering our ability to fully experience place.**

Putting individual pieces together to form a greater conclusion illustrates what some refer to as the "eureka" moment. This brings the conversation to the relationship of aesthetics to perception and scientific knowledge. The moment where the puzzle pieces are grouped together in such a way as to create a pattern or a resolution. The first documented eureka moment was supposedly had by Archimedes. He stepped into a pool and noticed the water level rose, thereby making the connection that the volume of water displaced was equal to the volume of his body. This led to the realization that irregular objects could be measures precisely, which led to measurements of density, ratios, and so on (Bello, 2006). While this moment was significant, Archimedes was not the first and certainly not the last person to experience this sensation.

The eureka moment is significant to aesthetic perception because it relates to the seat of creativity, creativity is responsible for art, and art is an expression of our aesthetic response. There are several laws of aesthetics worth mentioning (Ramachandran, 2003).

# Art & Science

The first is **grouping**: that moment when seemingly unrelated elements are recognized as a pattern or an idea, creating a sense of gratification. This evolved out of the human need to de-camouflage hidden predators, and served as an indicator to pay attention.

*Figure 3.1: Lines and colors come together to form what we recognize as a flower.*

The second is **symmetry**: the appearance of equal proportional balance. This also evolved out of human survival, with healthy mates possessing more symmetrical features and unhealthy ones possessing more asymmetrical features that might indicate parasites or poor genetic qualities. On the other hand, a strict symmetrical pattern fails to elicit an aesthetic response because it lacks the critical minimum of unpredictability or complexity required to be resolved (Smith, 2003).

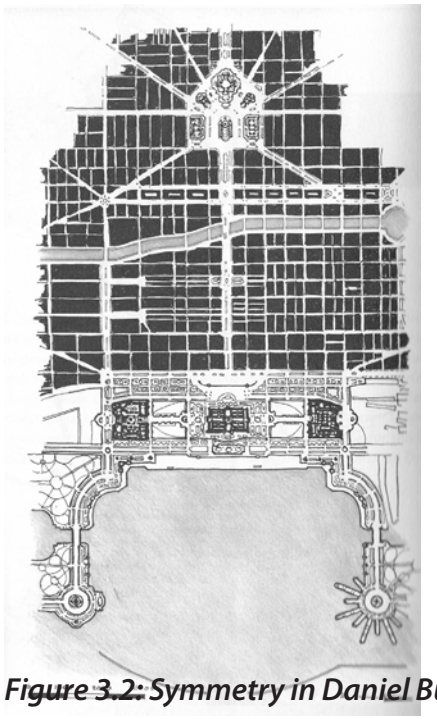


*Figure 3.2: Symmetry in Daniel Burnham's Plan for Chicago: Boults and Sullivan, 2010.*

The third is **supernormal stimuli**: an exaggerated version of a stimulus to which there is an existing response tendency (Barrett, 2010). This is closely related to the fourth principle, **peak shift**: the need for exaggeration in order to maintain our interest. In studies of baby birds begging for food, researchers found that chicks would peck not only at a mother's red-tipped beak, but at anything with a red tip. When researchers painted multiple beaks on cardboard, they found that chicks went crazy for more exaggerated markings, more saturated colors, and larger sizes. This brings up the question of whether the chicks are interested in the prospect of more food, or the appearance of the extra red dots. Newer research shows that "junk food serves as an exaggerated stimulus to cravings for salt, sugar, and fats and television as an exaggeration of social cues of laughter, smiling faces and attention-grabbing action" (Barrett, 2010).

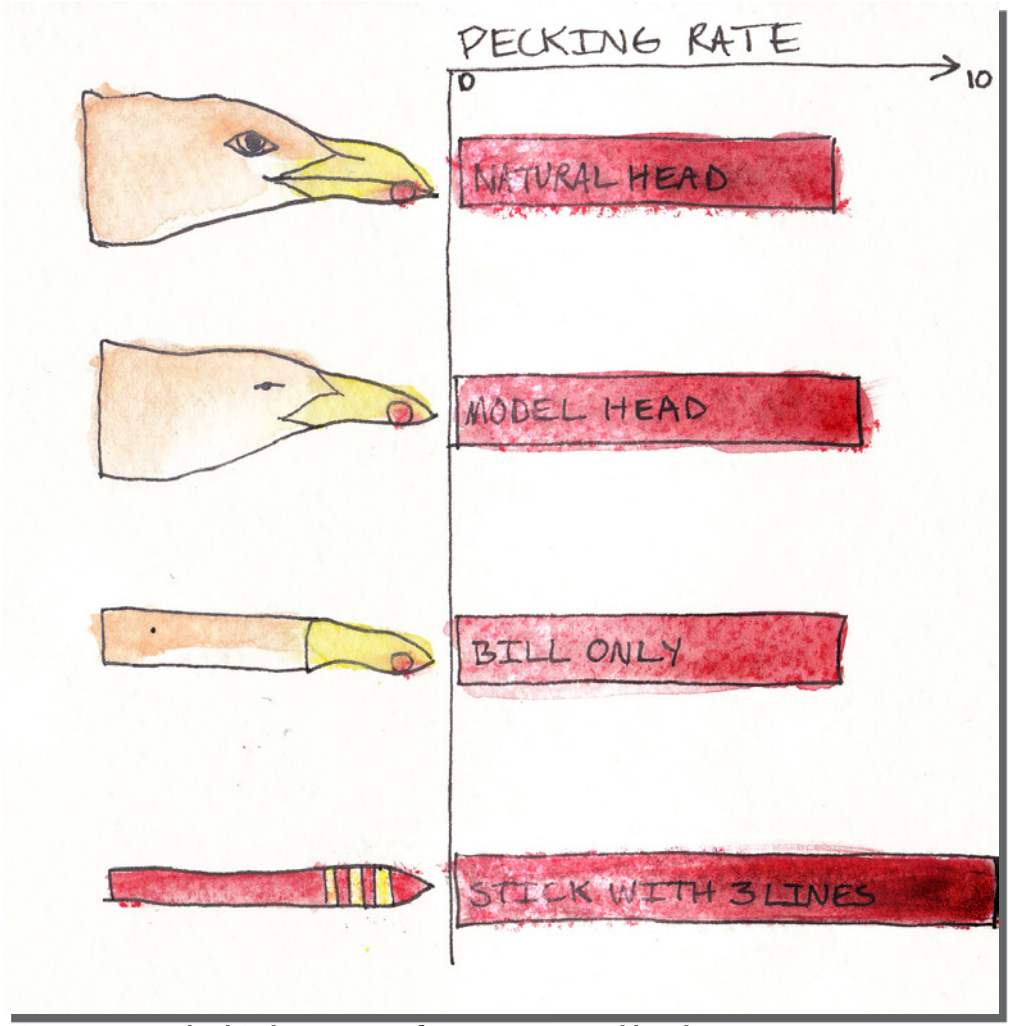



*Figure 3.3: Baby birds go crazy for exaggerated beaks.*

The fifth is **isolation**: less is more. It is easier for one to see what is really important without being distracted by the other elements.

*Figure 3.5: Isolation in the view of Seacliff from Baker Beach, San Francisco.*

Related to this is the sixth, **hide and reveal**. The Japanese have used this in their gardens for centuries, where movement through the garden reveals continuously changing framed views that keep the user interested in seeking out the next point of gratification. It's actually the process of discovery that creates that eureka sensation, not just the final reveal.

*Figure 3.6: Pass through the gate.* *Rround the corner.* *Reveal the view.*

# Art & Science

> Just as the thinking parts of our brains enjoy intellectual problem solving, the visual system seems to enjoy discovering a hidden object. Evolution has seen to it that the very act of searching for the hidden object is enjoyable, not just the final "aha" of recognition — lest you give up too early in the chase. Otherwise, we would not pursue a potential prey or mate glimpsed partially behind bushes or dense fog. Every partial glimpse of an object (d) prompts a search — leading to a mini "aha" — that sends a message back to bias earlier stages of visual processing. This message in turn prompts a further search and — after several such iterations and mini "ahas" — we arrive at the final "aha!" of recognition. The clever fashion designer or artist tries to evoke as many such mini "ahas," ambiguities, peak shifts and paradoxes as possible in the image (Ramachandran, 2006).

Relating these topics to the landscape can be achieved in myriad ways. Grouping, symmetry, super-stimuli, isolation, and hide/reveal may seem like basic principles to draw upon when designing a place, but the importance of the role of human evolutionary thought shouldn't be underestimated. No matter where technological advances may take us, 250,000 years of species evolution leaves us with a lot in common; namely the places we gravitate toward to maintain our health and well being. It's important to note these biological principles that guide us in perceiving place, for within these principles there is the opportunity to provide pleasure. The eureka moment is a pure mash-up of art and science.

Examining and defining these scientific terms affords a greater understanding of the foundations upon which our aesthetic ideals formulate. It is amazing to have a subject that combines 2500 year-old philosophy with the scientific base of knowledge we have also accrued since then. There is a basal separation between philosophy and knowledge, art and science, sight and insight; literally and figuratively, they occupy separate hemispheres of the brain.

# Art & Science

Exploratorium founder Frank Oppenhiemer (1912-1985) had this to say on the matter of integral art and science, left and right brain interaction: "Art and science are very different, but they both spring from cultivated perceptual sensitivity. They both rest on a base of acute pattern recognition. At the simplest level, artists and scientists alike make it possible for people to appreciate patterns which they were either unable to distinguish or which they had learned to ignore in order to cope with the complexity of their daily lives" (Oppenhiemer, 1976).

A great example of the point Oppenhiemer makes is expressed in the landscape, at the Outdoor Exploratorium...

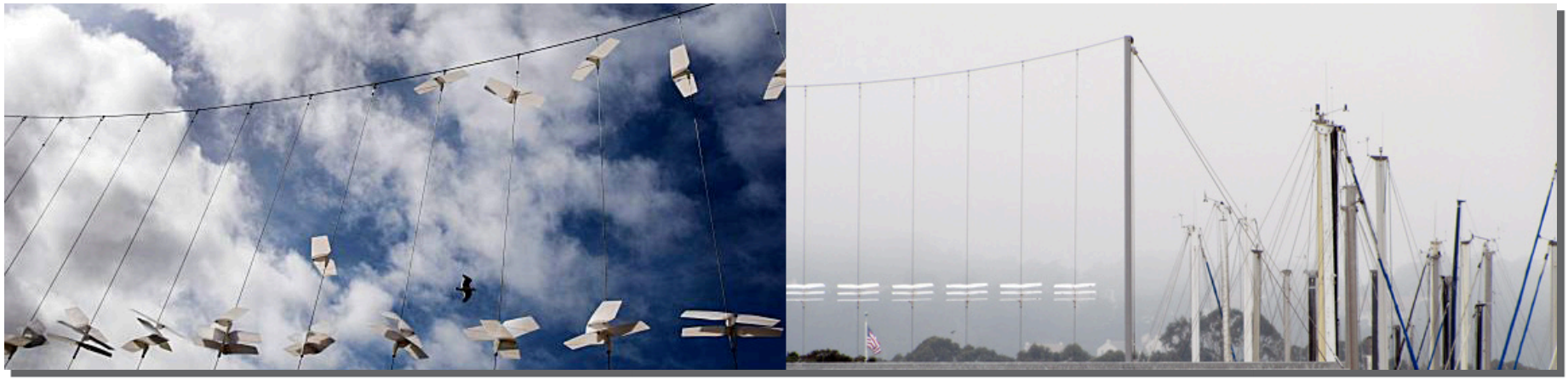


*Figure 3.7: On a windy day, the bird-like sails rise and fall with the aerial currents. On a windless day, the form echoes the surrounding sailboat masts*

# Art & Science

The need to live in an orderly place creates the desire to classify elements within space. Appreciating patterns and making order from chaos reveals the hidden logic behind aesthetic perception. Aesthetic perception evolved out of basic survival programs and the need to organize complex information into a form that was quick to understand in order to avoid being eaten by a predator (Smith, 2003). The binary pattern is the most basic form of orderliness.

Further consider mathematics, which takes simple arithmetic and builds upon itself to generate complex calculations. Einstein had surely mastered his multiplication tables to a point where they were not primary conscious thoughts as he concocted the famous and groundbreaking E=mc2. Similarly, when we look at a bridge in a landscape we generally see a bridge, not the wood fibers, nail material, and metal cable widths that were used to construct it. If we saw everything at that level of detail, we would experience sensory overload. So in our day-to-day lives, we lump objects into known patterns based on an acquired set of knowledge. **Novel experiences are judged against this acquired database, so the propensity for one to make an aesthetic judgment about a designed landscape does rely on his or her level of knowledge.**

In addition, the day-to-day landscape is constantly changing and shifting, and adapting to those changes requires a certain mental agility. The mental agility involved in pattern recognition is essential to appreciating place. This is an important component for designers to take into consideration because it poses limitations on how far one can push the envelope while still creating a socially accepted and appreciated place. Therefore, the greater knowledge and mental agility one exercises, the greater aesthetic pleasure one derives. How much latitude should be given to depart from the style of the surrounding landscape? This answer lies in proportion and pattern consistency, or "likeness tempered with difference" (Smith, 2003).

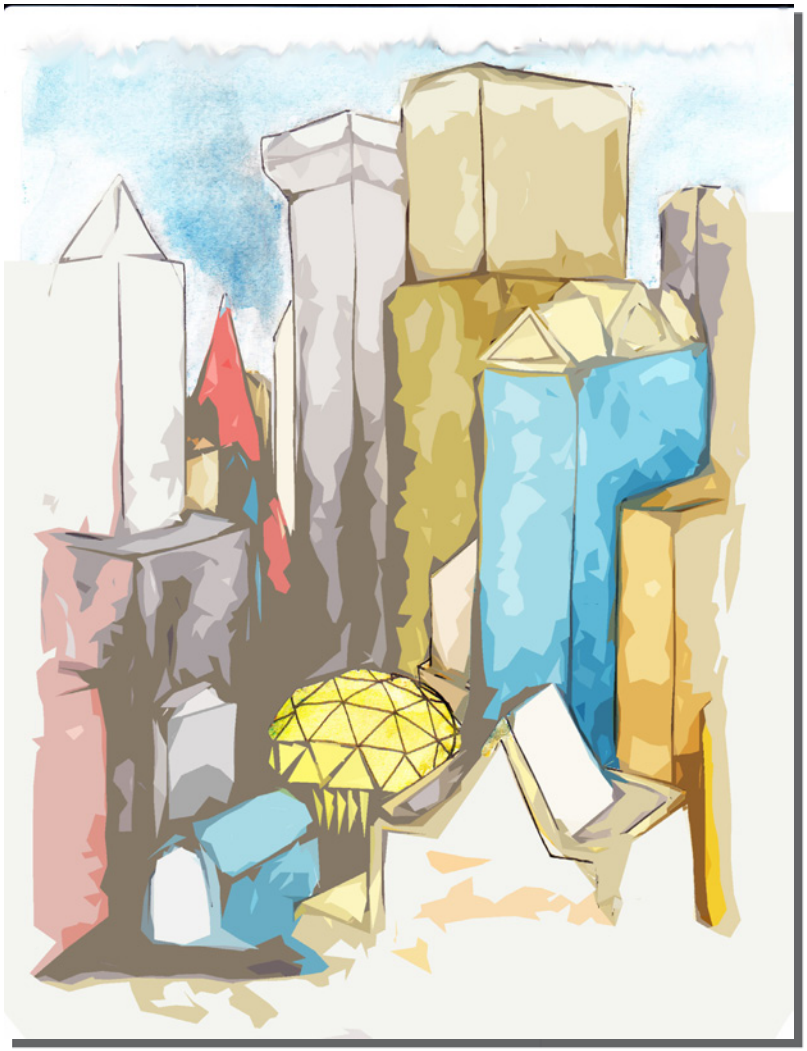


*Figure 3.8: One of these things is not like the other.*

# Art & Science

**Sum it up!**

**The eureka moment is a pleasurable emotion that is the result of problem solving. This is also defined as an aesthetic emotion, deriving pleasure from observations. While there are many laws of design that relate to aesthetics, I singled out grouping, symmetry, supernormal stimuli, peak shift, isolation, and hide and reveal as the most significant in understanding the relationship of aesthetics to science. Art and science stem from acute pattern recognition and afford us the ability to appreciate patterns we had come to ignore. While we have learned to ignore things as a means of making order out of chaos, this mental process hinders our ability to have novel experiences and aesthetic emotions. Exercising mental agility is a next step in becoming a more balanced designer and general practitioner of aesthetics.**

# 4 Cognition & Perception

*"The notion that we see our retinal images is based on some such idea as a little seer sitting in the brain and looking at them. The question which then arises is how can he see?" -J.J. Gibson*

**In this section I will delve into the mechanical processes behind spatial awareness. The left-brain/right-brain bias and influence will be discussed and the temporal cortex identified as the location from which an aesthetic emotion arises. Spatial coding is discussed to clarify how location, distance, and direction are involved in visual, auditory, somatic, olfactory, and phenomenal space perception. How those signals are interpreted is then explained by Empiricist and Rationalist theories.**

Like the previous section, art and science compliment each other in a way similar to the right and left sides of the brain. The left hemisphere of the brain is logical (sees cause and effect), rule driven, linear, and sequential in thought. The right hemisphere of the brain is analogical (sees resemblances), transformative, holistic, and simultaneous in thought. **The left brain operates in language while the right brain operates in sensory images** (Irvy, 1999). In aesthetic perception, the left brain takes in the pieces while the right brain constructs the connections between those pieces to form a greater whole. Peter Smith suggests that it is possible to develop the capacity for aesthetic perception "by correcting the left-hemisphere bias and creating scope for the right hemisphere to lift our senses above the detail" (Smith, 2003).

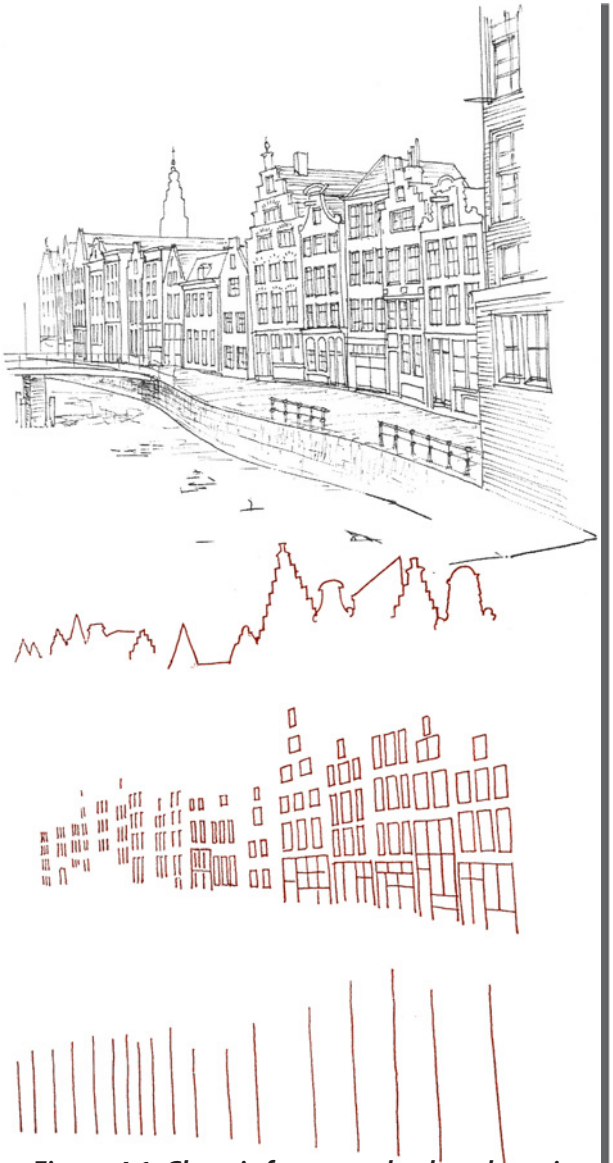


***Figure 4.1: Chaotic forms are broken down into recognizable patterns, creating a sense of place***

# Cognition & Perception

The temporal cortex is known to make semantic connections between different kinds of ideas and putting together known concepts in novel ways might be exactly what defines an insight or noesis. Noesis, as the Greeks referred to it, is the ability to sense something (Zangwill, 2007). Insight is also driven by this eureka moment, as it occurs when fragmented pieces are put together in such a way as to provide a resolution. As previously mentioned in the Aesthetics & Design section of this report, creating higher order out of smaller fragments of disorder is the crux of the aesthetic experience. The formation of efficient pathways for this kind of data transmission throughout the brain brings us to spatial coding theory.

Spatial coding is defined as integrating inputs from diverse sources as potential reference cues that specify the location, distance, and direction in perception and action that a task demands (Miller, 2008). The way one moves through a landscape is the result of the responses to a wide variety of cues and sensory inputs. As Kant thought, all human perception is reliant on the same sets of organs to do the job of observation and navigation: eyes, ears, hands, feet, skin, and the elusive intuition. How these signals are processed once they are perceived is where we differ. Nonetheless, the visual, auditory, somatic, olfactory, and phenomenal equipment is the same, which gives validation to judgments of taste having some universal validity because we share the same cognitive faculties that constitute pleasure in beauty, or as we saw in the last two sections, aesthetic emotions.

There are several kinds of spatial awareness worth defining to further the discussion of the science behind aesthetic perception. **Visual space** awareness forms in the eyes. Subjective cues of depth and distance result from a judgment of ones orientation in a space. **Auditory space** awareness forms in the ears. Sound waves hit the eardrums at different times and provide the listener sensations of the volume and the distance from which it is being produced. **Somatic space** awareness forms in the skeletal muscles and skin. The somatic nervous system processes sensory information and generates reactions in the muscular system that allows the individual to exercise appropriate motor reaction. **Olfactory space** awareness forms in the nose and mouth. Odors contact receptor neurons that interact with the molecular structure of the odor and generate a chemical reaction in the brain. **Phenomenal space** awareness forms in the brain itself. It is the space in which our experiences take place, where the information from the different sensory spaces meets and mingles to create a holistic reaction. Phenomenal contents can not exist all by themselves, they can not be self-revealing, they need to be apprehended by someone or something in order to be experienced (Dainton, 2004).

# Cognition & Perception

This notion suggests we are only able to experience what we are able to sense. There are different schools of thought on the matter of what we sense: below are described the Empirical and Rational.

Empiricists would have us believe our knowledge of space is acquired, everything is learned by association, that mental impressions form out of discrete sensory impressions and the contiguous associations between them. If a man born blind gained sight at middle age, would he recognize objects he had previously known only through touch (Miller, 2008)? Turns out this theory has been tested by modern science and the answer is not yes or no, but a complex one that delves too far into neuroscience to address here. The important lesson that consistently reveals itself throughout the search for aesthetic perception, is that the answer is rarely a simple yes or no, but rather a complex system of interlocking mental schemes in which paradoxes abound. Just as in nature itself, complexity reigns supreme. **Complexity should be fully embraced when designing the process, then streamlined in a way that makes sense aesthetically: to make unity out of chaos.**

A running theme in aesthetic place making is the notion of complexity and one's ability to transition fluidly between the complex and the simple. We take pleasure from the eureka moment that occurs when we solve problems or make simple deductions from complex structures (and vice versa). The structure of nature itself lends itself to this form or organization as well. A good example of complexity in nature is the food web, where thousands of creatures feed upon each other, translocating carbon up the food chain, yet at the base of it all is sun-powered photosynthesis that takes place in simple plant life.

Likewise, a good example of complexity reigning over simplicity in the landscape is in the management of water. The current practice of collecting water involves capturing clean runoff in pipes combined with dirty effluent and piping it all together over a long distance to a treatment plant, that then discharges it into larger bodies of water. This evolved out of an effort to avoid the complexity of using smaller, more local and effluent specific strategies and has resulted in the waste of millions of gallons and millions of dollars of precious resources. The best solution to this issue is a complex one involving source separation, storm water collection, wastewater recycling, and overall conservation (Del Porto, 2005). **Complexity is actually a key to creating logically functional as well as aesthetically pleasing places, but striking a delicate balance between the two ends of the spectrum is the challenge.**

# Cognition & Perception

On the other hand, Rationalists would have us believe that concepts of space are innate, and most things are as they seem, the sky is blue, the snow is cold. But modern physics would suggest otherwise. Atoms and subatomic particles exist independently of our observations of them (French, 1987). So, if atoms (the building blocks of all matter) are no longer conceived as being indestructible and objects are never numerically identical with our sensory perceptions, then **things may in fact not always be as they seem**, as rationalists suggest.

For example, the sky is not blue; it is a mixture of colorless gasses that, when struck by sunlight (a mixture of all colors), scatter more blue light than red. This also explains why sunsets appear red, because the angle of incidence allows blue light to scatter out of our field of vision and allows more red light to enter. The point to take away here is that, while objects may not be as they seem, our human sensory perceptions of them are taken from the same faculties. Perceptible colors are properties of light reflecting surfaces; mental colors are properties of sensations.

Mathematician Robert E. French suggests that while physical objects are publicly observable by more than one person, they are constructs from the individual experience of the perceivers. “The physical world, which is perceived by more than one person, is never directly perceived, in the sense that it is never immediately present in any person’s sense experiences, and is instead only learned about by means of the hypo-deductive method of the physical sciences” (French, 1987).

This would seem to suggest that perception is tempered with cognitive, unconscious interference. Everyone, quite literally, sees the world differently. There is no way to reconcile the sensory experiences of two different people due to the complexities and errors in assumptions. If **sensory inputs are flawed** and vantage points are occluded, then there is no way to experience space in its entirety.

# Cognition & Perception

Did these theories just blow Kant's notion of common perceptions out of the water? Not really. As far as aesthetic perception is concerned, the above information on cognition and perception simply reinforces the notion that there is no way of creating a concrete definition of what is beautiful. However, it suggests we can create guidelines for the construction of pleasing spaces based on chemical reactions within the brain and spatial awareness. For example, when two discrete but associated clusters of information are counterbalanced within the mind, the most likely aesthetically pleasing outcome is asymmetrical (Smith, 2003). Additionally, the intuitive sense of proportion derives from the sense of balance within the inner ear. These relationships between perception and proportion, balance and mathematics are consistent with the running themes set forth by the Greeks. The golden section, the phi preference, and the Fibonacci sequence may be part of the fundamental structure of our mental programming (Young, 1978). These guidelines will not by addressed in full in this report, as they are a study unto themselves. What we can glean from these lessons is that **there are universal truths in perception just as there are in judgments of taste and beauty and they lie in the moderate place between extremes.**

*Figure 4.2: Between two extremes*

# Cognition & Perception

**Sum it up!**

**This section took on the hefty task of summarizing multiple lifetimes worth of work in the science of perception into a few pages. There really is no way of fully summarizing the involved science, but grabbing the highlights that reinforce the taken position on judgments of taste is important. The left and right sides of the brain play different roles in perception, and mental agility (discussed in Section 3) allows one to lift his/her senses above the detail driven left-brain bias that is prevalent in the current design environment. Understanding spatial coding allows us to more fully see what Kant saw; all human perception is reliant on the same sets of organs to do the job of observation and navigation: eyes, ears, hands, feet, skin, and the elusive intuition. There will be variability in these inputs, but the vast majority will be shared. Despite whether our knowledge of space is acquired or innate, embracing complexity is key in becoming a practitioner of aesthetic design. This should be done in such a way that allows the viewer to put together complex pieces into a simpler whole to experience a pleasurable aesthetic emotion. And yet again we see that while sensory-mental equipment is flawed and internal reactions are different, there are universally shared mental processes that lend validity to judgments of taste.**

# 5 The Gestalt

*"I have a rigorous awareness of the bearing of my gestures and the spatiality of my body, which allows me to maintain relationships with the world without thematically representing to myself the objects I am going to grasp. . . On the condition that I do not reflect expressly upon it, my consciousness of my body immediately signifies a certain landscape about me, that of my fingers a certain fibrous or grainy style of the object" -Maurice Merleau-Ponty*

"The landscape about me" seems to be a fantastic catch phrase for describing the individualistic way in which we each perceive common space. It is as much about the landscaped space as it is about the individual landscape of the mind and body of the user. Individuality serves as the method for interpreting different modes of aesthetic environments. Therefore, a holistic reaction formed in one's phenomenal space can be heightened by developing an analytical approach to aesthetics. **In order to get the most of an aesthetic experience, we have to exercise the imaginative skills that we could easily access in our youth while simultaneously drawing upon the knowledge we have acquired over our lifetimes.**

The aforementioned sensory inputs create chemical reactions that are responsible for the senses. That eureka moment is a chemical reaction that also occurs in the experience of aesthetic pleasure. Aesthetic pleasure is derived from aesthetic perception, therefore aesthetic perception is also chemical. The result of an aesthetically pleasing place is an aesthetic emotion, a chemical release of serotonin. This is the mental reward we get when we have made adjustments to incorporate more information, once we have pushed toward a more flexible state of mind.

To tie the theory of this thesis together, aesthetic place making draws upon what we know of perception and neurology as well as what we don't know about intuition and imagination. "Intuitive ability can be sharpened by developing an analytical approach to beauty in parallel with the capacity for holistic vision" (Smith, 2003).

# The Gestalt

The design world, and perhaps the world in general, is in need of moderation between the intuitive subjective and the reasoned normative. Judgments of taste allow this balance to occur, because they are held in neither subjective nor normative extremes. This area of overlap is the keystone to defining aesthetics and drawing a relationship to place making and becoming a more holistic designer. Improvement can begin with heightened awareness of common perceptions, comprehension of the evolutionary underpinnings of the human brain, and heightened capacity for imagination. This knowledge should be combined with that of basic design principles illustrated in Section 3, but not limited only to these, there is a whole world of knowledge to be acquired on design principles alone.

**The knowledge of design principles as well as the scientific knowledge of how the mind perceives the world contributes to a more holistic view of place making. Seeking balance between the intuitive subjective and the empirical normative will lend itself to the creation of more holistic landscapes and more holistic people. This balanced approach to design is the gestalt of an aesthetic approach to place making.**

A Quick Collection of Conclusions

Section 1 illustrates how Figure 1.2 is the crux of our definition of aesthetics. Beauty is indefinable, but taste is not. The area where subjective interpretations of beauty overlap the normative interpretations of the world is our pot of gold because it gives legitimacy to the subjective realm. This zone gives us the ability to have the best of both worlds, creating subjectively universal judgments. This establishes a definition of aesthetics and identifies judgments of taste as our area of interest. Judgments of taste are critical to the study of aesthetics because they allow for these subjectively universal judgments to take place.

Section 2 connects the philosophy of judgments of taste to the process of becoming a better designer through heightened awareness of common perceptions, comprehension of the evolutionary underpinnings of the human brain, and heightened capacity for imagination. Comprehending the small role one person plays in the world of design, understanding the evolutionary cognitive process, and exercising the imagination will make one a more considerate designer. By the very nature of taking these steps, one becomes a more aesthetic designer because one becomes more balanced. Striving for balance toward the left of the spectrum (Figure 1) evolves out of the current trend of designing with a bias toward the right of the spectrum. The balance of becoming a more holistic designer is the first step in creating more holistic places, and holistic appreciation of the world is key to aesthetic perception. The gestalt is the whole, and putting individual pieces together to create a framework for more effectively understanding our visual experience is the goal of aesthetic perception.

# The Gestalt

Section 3 explains how the eureka moment is a pleasurable emotion that is the result of problem solving. This is also defined as an aesthetic emotion, deriving pleasure from observations. While there are many laws of design that relate to aesthetics, I single out grouping, symmetry, supernormal stimuli, peak shift, isolation, and hide and reveal as the most significant in understanding the relationship of aesthetics to science. Art and science stem from acute pattern recognition and afford us the ability to appreciate patterns we had come to ignore. While we have learned to ignore things as a means of making order out of chaos, this mental process hinders our ability to have novel experiences and aesthetic emotions. Exercising mental agility is a next step in becoming a more balanced designer and general practitioner of aesthetics.

Section 4 takes on the hefty task of summarizing multiple lifetimes worth of work in the science of perception into a few pages. There really is no way of fully summarizing the involved science, but grabbing the highlights that reinforce the taken position on judgments of taste is important. The left and right sides of the brain play different roles in perception, and mental agility (discussed in Section 3) allows one to lift his/her senses above the detail driven left-brain bias that is prevalent in the current design environment. Understanding spatial coding allows us to more fully see what Kant saw; all human perception is reliant on the same sets of organs to do the job of observation and navigation: eyes, ears, hands, feet, skin, and the elusive intuition. Despite weather our knowledge of space is acquired or innate, embracing complexity is key in becoming a practitioner of aesthetic design. This should be done in such a way that allows the viewer to put together complex pieces into a simpler whole to experience a pleasurable aesthetic emotion. And yet again we see that while sensory-mental equipment is flawed and internal reactions are different, there are universally shared mental processes that lend validity to judgments of taste.

The current section (Section 5) summarizes this rich and weighty material and prepares the reader to transition into Section 6, where landscape theorists and locations are analyzed against the knowledge accrued over the course of this thesis.

# 6 Landscape Theorists in the Spectrum of Judgments of Taste

*"Design is a cultural act, a product of culture made with the materials of nature and embedded within, and inflected by a particular social formation; it often employs principles of ecology, but it does more than that. It enables social routines and spatial practices, from daily promenades to commutes to work. It translates cultural clues into memorable landscape forms and spaces that often challenge, expand and alter, our conceptions of beauty."* *- Elizabeth K. Meyer*

**In this section I will place theorists on the spectrum of judgments of taste. The landscape is the place that typifies the aesthetic relationship between form and function, program and appearance, interior and exterior. This connective fabric exemplifies the need for moderation that has been a running theme throughout this report. Therefore the landscape environment will be used to illustrate how the principles of aesthetics as I see them can be applied to the built environment.**

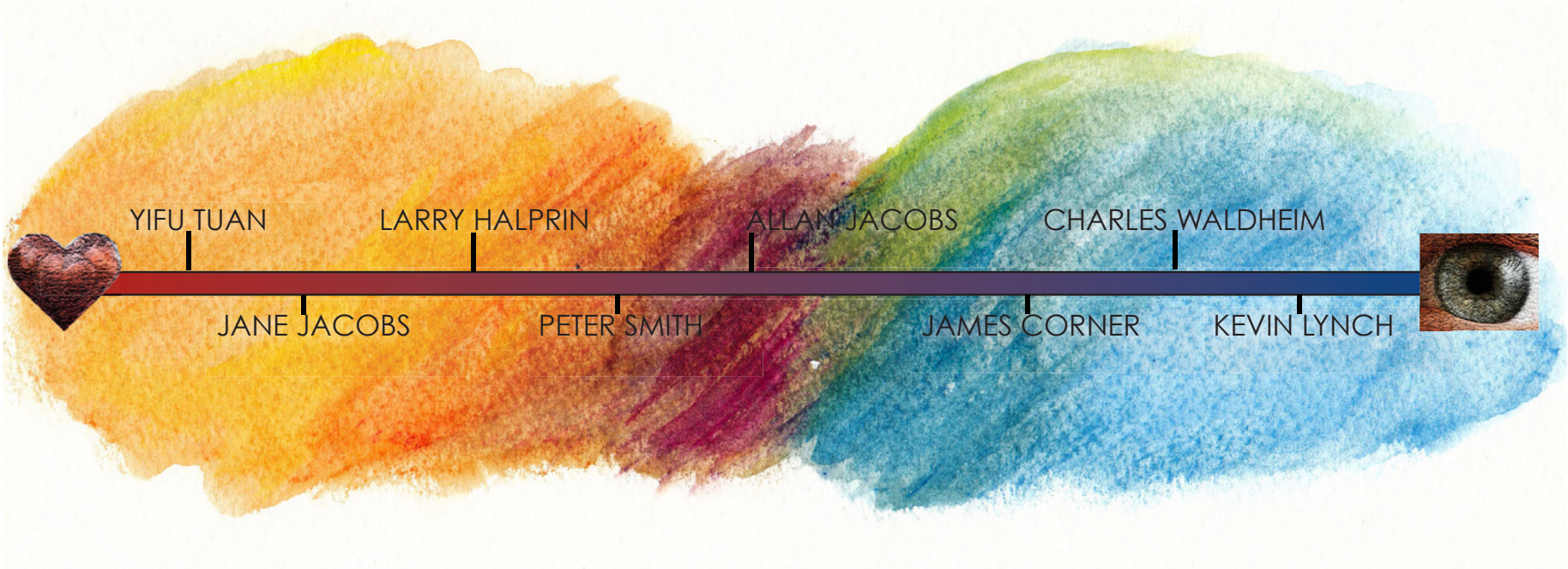



*Figure 6.1: Landscape theorists as they fit on the spectrum of judgments of taste*

# Kevin Lynch

**Kevin Lynch (1918-1984) Urban Planner.** Lynch was true observer and hierarchical thinker. He analyzed, in detail, the sensuous form of the environment, studied how groups and individuals used and valued their surroundings, developed criteria for landscape quality, and influenced public policy for urban development. In Lynch's Image of the City, recommendations about urban design emerged from empirical studies of how ordinary citizens perceived the cities they inhabited. He examined environmental perception and the mental maps or images that people form of their surroundings in order to orient themselves and find their way around. Using Boston, Jersey City and Los Angeles as case studies, Lynch asked people to sketch frequently visited areas of their cities and found that there was a lot of overlap in these depictions. The distinct similarities he identified as key reference points in orientation within a place were: paths, edges, districts, nodes, and landmarks. These became a sort of established criteria upon which the legibility of cities were and still are judged. If these 5 elements are easy to distinguish, then the city as a whole should be "legible."

This making sense of a place engages the cognitive rather than the affective and could be called environmental perception, distinct from aesthetic perception. When we perceive a landscape for the sake of getting from point a to point b, we are perceiving a place legibly. When we perceive a place for its own sake, for enjoyment and observation, we are perceiving a place aesthetically. Turns out legible places are often unattractive (Phoenix) and aesthetic places (Amsterdam) are often illegible, but rarely does the opposite occur (there are still certainly exceptions).

# Kevin Lynch

When examining the below Lynchian district in England that contains all the characteristics of his ideal city, it does not ignite an aesthetic response. There seems to be general agreement that, "Whilst it is a bonus for a townscape to possess the quality of legibility, legibility by itself is not a sufficient condition for good quality townscape. Indeed, on its own, legibility is not even a necessary condition, for even when we enjoy a townscape for its clarity of form and structure, we only do so where that clarity is itself aesthetically pleasing to perceive. Moreover, there are townscapes that we flock to visit even when they are not very legible" (Taylor, 2009). While the Lynchian city is highly legible and navigable, it is often ugly and, perhaps paradoxically, Lynch's research really points to the conclusion that the aesthetic quality of places is the most important measure of their perceptible quality and maybe the most important consideration or 'principle' in urban design. Despite these conclusions, he still maintains a position far to the left of the spectrum due to his hierarchical, scientific approach to design.

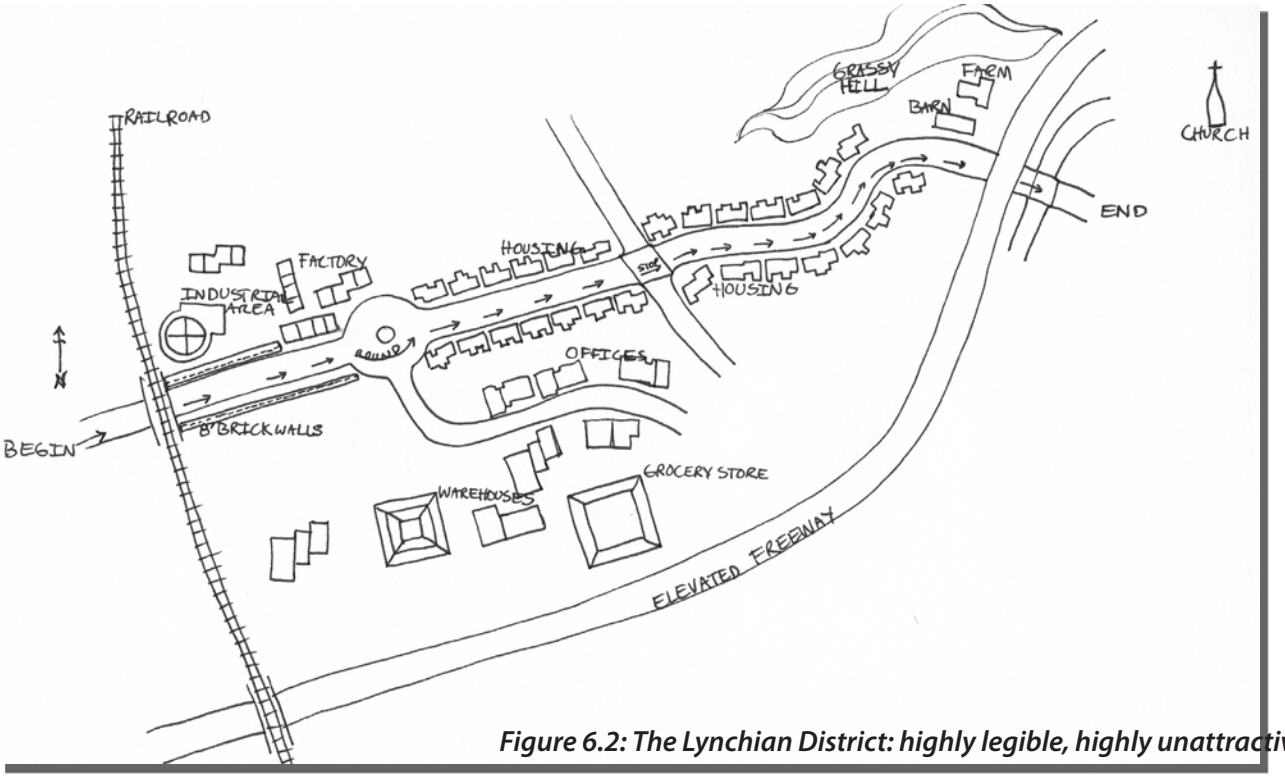



*Figure 6.2: The Lynchian District: highly legible, highly unattractive*

# Jane Jacobs

**Jane Jacobs (1916-2006) Social Advocate.** Her theories helped spur the New Urbanism movement, encouraging planners to draw on their own experiences as the basis of their work and even created a blueprint for the humanistic management of cities. She emphasized the need to protect the "social capital" of the city: the intricate web of human relationships built up over time that provides support, ensures the safety of the streets, and fosters a sense of civic responsibility. She wrote The Death and Life of Great American Cities, in which she critiqued Modernism and stressed that public spaces created by the Modernist "city in the park" notion was one of the main reasons for the rising crime rate. She argued for an "eyes on the street" approach to planning and resurrecting main public space precedents, such as streets and squares, in the design of cities. Jacobs was suggesting repurposing abandoned buildings, re-enlivening downtowns, sensitizing users to local ecologies, and minimizing reliance on the automobile back in 1961 when her work was first published. Suffice it to say, she possesses the imaginative qualities described in the Aesthetics & Design section of this report. Because she emphasized the anthropocentric, experiential quality of the landscape and struck a balance between the intuitive nature and the observational, scientific quality, she falls nearer the center of the Aesthetic Spectrum.

In her critique of Modernism, she was onto a notion that appears to be resurfacing in the current era. Many places are being designed primarily for program and performance, two incredibly important considerations, but the aesthetic experience has been de-prioritized to a point of near invisibility. For example, Rotterdam's Schouwburgplein is a city-center plaza located within walking distance of mass transit, surrounded by restaurants, theaters, and businesses aplenty: a perfect (and typical) location for a plaza. It was once a dilapidated underground parking garage roof, a largely abandoned expanse of concrete that was redesigned by the Dutch firm West 8. Wood and concrete floorboards elevate the space about a foot off the ground to emphasize the notion that the space is a stage. The floorboards

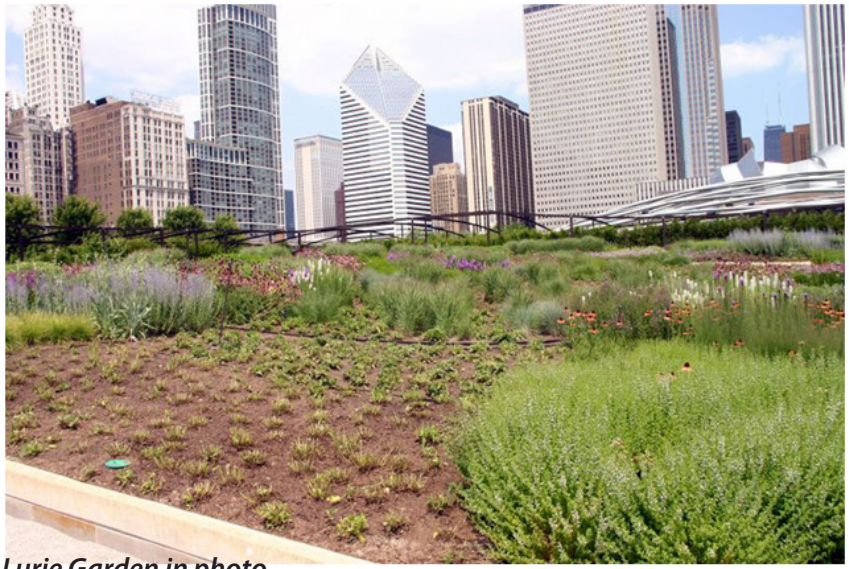
are aligned to resemble patterns of Dutch agricultural features, dividing the space into several zones. The lights are coin operated by users and made to resemble the cranes used at local shipping ports, allowing users to adjust the lights to suit their desired activity. Schouwburgplein is an innovatively designed place that is based on logical metaphors, however questionable the readability may be. It serves as a wonderful place for gathering large groups of people and putting on shows. That said, Project for Public Spaces argues that the square only attracts users when organized activities are taking place, leaving it largely unoccupied outside these occasions. It doesn't insight unprogrammed usage and it doesn't fill one with a sensation of good; it doesn't provide an aesthetic experience. Its cold nature seems to cry out for a balance of soft and hard textures. One may claim that Schouwburgplein challenges our idea of what a city center park should be, and I fully agree with pushing and abstracting the envelope, but this isn't the first time a plaza has been laid with well arranged concrete and had some lights shone on it. I believe this trend is the new Brutalism, soon to be seen as a stark, unwelcoming, and outmoded landscape as tastes change over time.

Similarly, Lurie Garden, Designed by Kathryn Gustafson, is another example of a city-center square. Located in Chicago's Millennium Park, the space is situated on artificial land, first reclaimed from a marsh, and more recently a roof deck covering railway infrastructure, parking, and a theater. It is an exceedingly visible centerpiece with a highly urban skyscraper backdrop. The space is unlike Rotterdam's plaza in that it is part of a larger network of designed spaces within Millennium Park. However, the Lurie garden makes a clear statement that it is a connector between the urban fabric of the city to the south and the natural fabric of the lake to the north. It also engages several scales; circulation is occurring at an urban scale (transit oriented), garden rooms are occurring at a medium scale (public gathering), and hedgerows are occurring at a human scale (bodily enclosure) (Wolff, 2002), while Schouwburgplein occurs only at the urban scale. The color, texture, and shape also change with the seasons, another way of expressing sensitivity, almost suggesting the site itself is sharing in the experience of the user. This accounts for quite an aesthetic experience. It engages the senses on multiple levels, provides opportunities for discovery while also being very open to the surroundings, and epitomizes the principles of Considerate Design mentioned in the Aesthetics & Design section of this report.

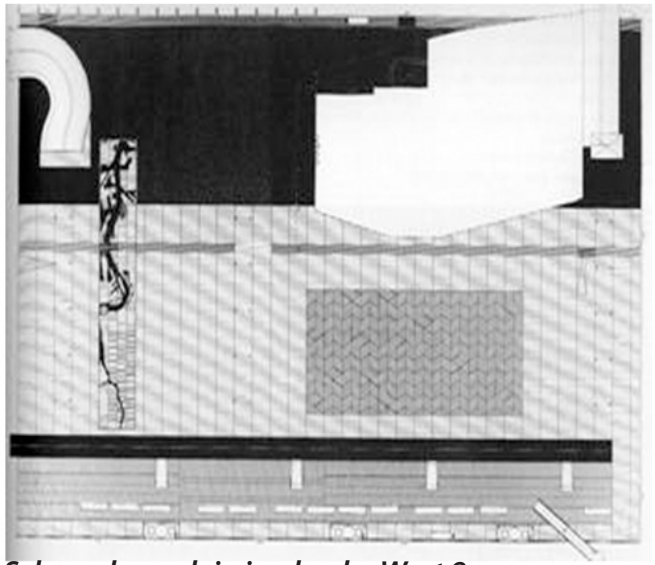
# Landscape Theorists

*Figure 6.3*

*Lurie Garden in plan by Kathryn Gustafson*



*Lurie Garden in photo*



*Schouwburgplein in plan by West 8*

*Schouwburgplein in photo*

# Larry Halprin

**Larry Halprin (1916-2009) Landscape Architect.** Describing the work of those on the more subjective side of the spectrum proves more difficult than the objective side. The hierarchical determinations made in the normative realm are easier to describe. That is undoubtedly one reason why more designers stray toward that side of the spectrum in their own publications and built works; it is more defensible. Larry Halprin, who married the famous dancer Anna Halprin, truly had his finger on the pulse of the intuitive heart. In contrast to Jane Jacobs's disdain for many Modernist theories, Halprin embraced the movement and found a way to make it his own. He said, "to be properly understood, Modernism is not just a matter of cubist space, but of a whole appreciation of environmental design as a holistic approach to the matter of making spaces for people to live. Modernism, as I define it and practice it, includes and is based on the vital archetypal needs of human beings as individuals as well as social groups" (Russell, Chao & Parrish, 1985).

A great example of work that embodies Halprin's design philosophy can be found in the Bay Area's Levi Strauss Plaza. Designed almost exclusively by Halprin himself, the plaza intention involves transplanting part of the Sierra Nevada mountain range to the urban environment. The great rock fountains, evergreen trees, meandering streams, and rolling hills are sheltered by towering office buildings, echoing and simultaneously juxtaposing the great spaces of the Sierras. Halprin's design philosophy included the choreography of movement. Levi's Plaza reflects this with the rapid movement of the water, up and down over and under, inspires people to move in this way, pathways flow under the tree branches, over the mounds, and through the water itself across the stepping stones.

# Larry Halprin

The plaza connects surrounding high-rise office structures to a grid of former manufacturing and warehouse space. This part of the city grid integrates a natural order into the open space system on the adjacent Embarcadero and its piers and waterways. Halprin isolates the diametric structure into two halves separated by an axis with the center being of great importance. They are not mutually exclusive; they coexist as hard and soft, big and small, natural and manmade (even though they're both manmade). Halprin sought to produce two contrasting areas separated by this axis, a hard plaza and a soft park. The Hard plaza was designed to resemble European plazas while the soft park was more naturalistic, with a winding stream, grassy mounds, and evergreen trees. Halprin theorized that the outdoor users would stratify themselves based on these differences, with lower level employees in the soft park and upper level executives in the hard plaza. (Tangentially, this stratification did not come to pass).

From an aesthetic standpoint, Halprin seemed to consider everything. When asked how he won the competition for the FDR memorial, he said had gone to Washington and sat on the grass at the national mall and contemplated what a memorial to FDR might be. He used his intellect and intuition to create a great design in his mind before it was ever built, just like many great choreographers. The connection to dance and choreographing movement through the landscape lends itself to the aesthetic experience. Choreography is known for its richness in creativity, expression, and partner interactions: all elements Halprin embraced in his designs along with the nuances of social interaction and cultural relevance. For these reasons, he falls further into the spectrum of subjective design from the heart, even though he seems to succeed in creating functional places people love, most of the time.

# Larry Halprin

*Hard Park*

*Soft Park*

*Figure 6.4: Levi Plaza*

# Charles Waldheim & James Corner

**Charles Waldheim (1965-Current) & James Corner (1961-Current) – Landscape Architects & Urbanists**. They claimed that landscape, rather than architecture, is more capable of organizing the city and enhancing the urban experience. Corner himself claimed that landscape urbanism dissolves old dualities of nature/culture, and notions of hierarchy, boundary, and center. It sees the city as a living ecology and doesn't offer remedies, but instead, opportunities to engage the city on its own terms. As many theories of urbanism attempt to ignore this fact or retrofit it to new urbanism, landscape urbanism accepts it and tries to understand it. Traditional notions of program and structure are not useful in this diffuse urban condition--their scope is small and limiting. Landscape urbanism uses 'territories' and 'potential' instead of 'program' to define a place's use; it finds thinking in terms of adaptable 'systems' instead of rigid 'structures' as a better way to organize space.

5 General themes of landscape urbanism and their relationship to aesthetic perception:

**1. Horizontality** – The emphasis shifts from one to many, from objects to fields, and maximizes opportunities for roaming, connecting, interrelating, assembling, and moving. Planning start with land division, then establishes services and pathways, then ensures permeability to allow for future development. This plan of attack is an excellent way of transforming places to the needs of the current time. It is related to aesthetic perception in the way it utilizes opportunities and takes into considerations the connections between people and places.

**2. Infrastructures** – Existing infrastructures are primarily concerned with performance and production, but hidden systems, such as ecology, are what really instigate development. Uncovering these systems leads to transformations in roads, bridges, subways, etc. Landscape urbanism uses geometry, materials and codes, not to control composition or determine social program, but more to free up future cultural and logistical possibilities. The concern lies more with spatial form than with geometry. This principle of landscape urbanism is somewhat unrelated to aesthetics in that it encourages adherence to spatial form strictly as a result of an object's possibilities and not of it's ability to provide pleasure. However, the "hidden systems" are aligned with the eureka moment in the possibility of seeing beauty where it had not previously been seen. The transformations in roads and bridges offer opportunities for visual amazement as well as programmatic improvement. The discovery of their multiple uses and hidden classifications affords the opportunity to have an aesthetic experience, and to glean pleasure from their multifacetedness.

**3. Forms of process** – Spatial order cannot control history or process. Landscape urbanism encourages designers not to seek out spatial forms and aesthetic appearances, but to be more concerned with social justice, economic viability, and ecological sensitivity. The idea is to move away from capitalistic globalization and the regulations that surround it, forming a utopia of process rather than utopia of form, shifting away from how things look and more toward how they work. This third principle is where landscape urbanism really diverts away from any relationship with aesthetic perception. It illustrates an inefficient understanding of the visual experience. Spatial order may not be able to "control history," but it certainly influences it. This ideal is too centered in logic and not enough in psychology. There is great wisdom in paying extraordinary attention to process, but it must be coupled with form.

**4. Techniques** – Landscape urbanism idealizes rhetoric and persuasion, and the ability to work as multidisciplinary teams and experts. Throw out the master planner and focus more on the collaboration between landscape architect, architect, traffic engineer, ecologist, economist, artist, and politician. Avoid stalling by imagination and projection, not to sell or accomplish work, but to explore and reorganize. Extensive scale and scope offers more direction. Prioritize creative techniques, infrastructure, process, open-endedness, and wholesome world, while addressing underlying sensitivity of ecology. This fourth principle of landscape urbanism bears a distinct relationship to the holistic nature of aesthetics. As stated previously, the goal of aesthetic perception is to create a holistic appreciation of the world in which an infinity of interactions produces monumental uncertainties. This is the epitome of wholesomeness, open-endedness, creativity, and flexibility of which Urbanists speak.

**5. Ecology** – Underlying every design decision should be ecological concerns, for this is the realm in which we are truly interconnected. Complex interactions cannot be addressed in simple models and GIS layers. Cities are just as ecological as forests because of the complex, codependent interactions. Described not as "nature," but as "soft systems," responsive and evolving, that absorb and exchange information with the surroundings. Landscape urbanism suggests stirring ecologies into new combinations, new sets of effects, and new kinds of public spaces. This fifth principle relates closely to the fourth in its relationship to aesthetics. Considerate design that is open and flexible, sensitive to the local and global ecology, and thoughtful in its design is truly aesthetic. The complex interactions which landscape urbanists prize are an integral part of the gestalt, the crux of the aesthetic experience. While landscape urbanism shuns the superficial aesthetic, it is actually intrinsically interlinked with the aesthetic experience.

# Charles Waldheim & James Corner

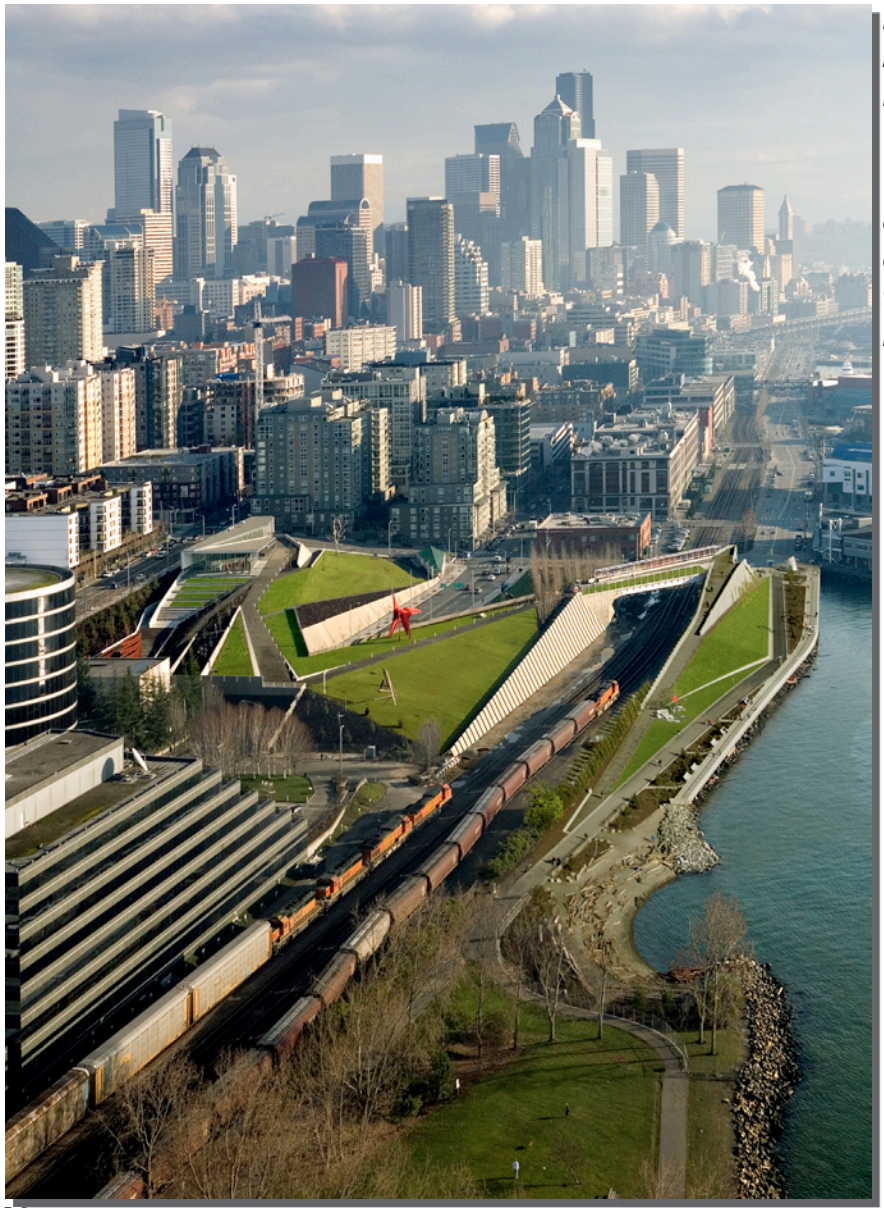


*Figure 6.5: Olympic Sculpture Park by Weiss/ Manfredi Architects and Charles Anderson Landscape Architects.*

*This 9-acre site typifies how landscape urbanism can work well with aesthetics. The transformation of the once abandoned industrial area embraced the city and created a place for aesthetic reflection.*

# YiFu Tuan

**Yi-fu Tuan (1930-current) Geographer & Social Phenomenist.** Educated at UC Berkeley, Tuan delves into the fields of psychology, religion, art, architecture, and many other fields. This is significant because good designers must be renaissance people, educated in a wide variety of topics. Tuan claimed that humanistic geography was neglected as a field of study because it was too hard. "Nevertheless, it should attract the tough-minded and idealistic, for it rests ultimately on the belief that we humans can face the most unpleasant facts, and even do something about them, without despair" (Tuan, 1977). Tuan suggests that professional planners are too quick to create models and site analyses, that more time should be spent on the social conditions. The layman accepts the social and environmental propaganda from these planners, who have been influenced largely by the media and popular opinion. The rich, experiential data on which these abstractions depend are easily forgotten. Artists have been able to articulate the subtle human experience in an effort to reveal more about human nature and the potential for experience. This line of thinking places Tuan in the far left of the spectrum, occupying the most subjective, experiential, emotional, non-analysis based area.

Twan graphically illustrates how "emotion tints all human experience, including the high flights of thought. Mathematicians claim that the design of their theorems is guided by aesthetic criteria, notions of elegance and simplicity that answer the human need" (Tuan, 1977).

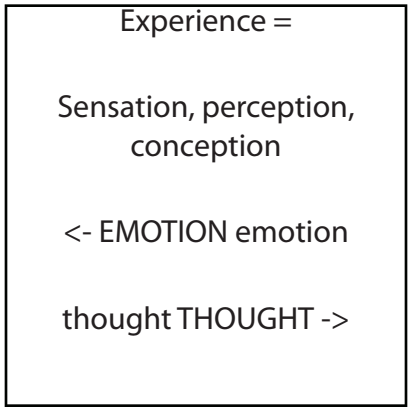



***Figure 6.6: YiFu tuan's emotional scale***

# Allan Jacobs

**Allan Jacobs (1930-current) Designer & Planner.** Jacob's literature possessed the well roundedness many landscape architects strive to achieve. He wrote Great Streets, which took on the daunting task of defining the criteria of a great street, from a balanced place between objectivity and subjectivity. From an aesthetic standpoint, he acknowledged that different people will perceive spaces differently, and thus he sought to scientifically define what great streets do and how they do it, allowing for a lot of flexibility within the design of such places, and all the while operating at a human scale.

A great street creates community, facilitating interactions between people while providing a desirable place to live, work, play, and spend time. It is comfortable and safe, provoking a sense of freedom without worry of being struck by traffic. However, he does not discourage planting and set-back limitations where thieves could presumably hide themselves because these features add too much to the character of great streets (another way his approach is moderate). A great street also encourages participation: sitting, watching, and interacting. This allows the inhabitants and passersby to come alive, take pride in their place, and thereby carry out maintenance and basic upkeep responsibilities. A great street lingers in one's memory and is representative of the best streets. It is artfully put together, or in other words, aesthetically pleasing.

# Allan Jacobs

Jacobs goes so far as to create guidelines based on these observations and comparisons for how to create a great street without limiting the designer such that all great streets become homogeneous. In constructing a great street, one should include: 1. Places for people to walk with some leisure: a basic requirement for most urban streets. 2. Physical Comfort: shelter from harsh winds, sunny and shady spots, and generally habitable climate considerations. 3. Definition: boundaries and structures that communicate the edges and make the street a place. The greater horizontal spacing, the less definition. Buildings are likely to provide a sense of definition when height to horizontal ratios are 1:4 when the viewer is looking at a 30deg angle. 4. Qualities that engage the eye: signs of habitation, more opportunities for shadow and light such as windowsills and overhangs, growing plants that show someone is caring for them. 5. Transparency: inviting windows and doors that blur the private/public realms. More glass does not necessarily indicate more transparency, it has to show people live and enjoy life there. 6. Complimentary structures: buildings are of a similar height to create a sense of unity amidst their diversity. 7. Maintenance: a great street must be well maintained by the inhabitants as well as the government in the sense that the streets and sidewalks need to be free of potholes and trip hazards. 8. Quality of construction and design: attention to workmanship and materials must be paid. Certain materials must be utilized in a way that shows the construction was performed with care.

The aesthetic qualities that contribute to a great street include trees and the proper spacing of vegetation, a distinct beginning and ending, many buildings rather than few, diversity that brings liveliness (relative to order form chaos process discussed in the Art & Science section of this report), special design features such as lamp posts or benches, distinct open spaces, accessibility, density (lively land use), length (not too long to maintain interest), slope (changes in elevation), parking (enough, but not too much), contrast (in shape, length and size to create patterns), and finally time (older is usually better). Because these qualities are scientifically based and organized in an hierarchical fashion, Jacobs would tend toward the left of the spectrum, but because he makes exceptions based on feelings and sensations, he moves further toward the right, placing him at central, yet still left biased, position.

# Allan Jacobs


*Figure 6.8: Boulevard Saint Michel does precisely what Allan Jacobs suggests a great street should do*

# Peter F. Smith

Peter F. Smith (1955-current) Architect. Smith is perhaps the most centered on the spectrum of judgments of taste of all the theorists analyzed here. His literature is heavily balanced between observation and creation of aesthetic emotion, and gives both credence. The Dynamics of Delight (2003) examines the rich relationship of architecture, landscape, and urbanism to the aesthetic realm. He claims that repeated exposure to places that express a balance between order and chaos as well as order over anarchy help establish inner balance. He has argued against making value judgments about architecture, stating that doing so is "an immeasurably subtle mental operation and totally beyond the scope of numerical quality indicators" (Smith, 2003). Nonetheless, he created an aesthetic performance checklist to appease those still clinging to the left of the spectrum of judgments of taste!

When striving for balance, it is helpful to have established criteria from a variety of sources upon which to check ones self. Like Allan Jacobs, Smith created a list of things that make a great aesthetic place. This gauge of the aesthetic performance of an urban environment suits this report well. Within each category, I discuss the relationship to a real world street… It is only a sample of possible categories that could be evaluated, but the list brings up excellent points in how to rate a place from an aesthetic point of view.

Dynamic Space: The Street

Complexity – The rate of eye-level interest: shops, pavement cafés, arcades, etc. The street as a market

Architectural Interest – Aesthetic rating of the sum of buildings; the quality of coherent diversity.

Goal Attractors – The magnetism of the distant view of a fragment of symbolically charged building, such as a church, city hall, etc. Implied rewards: the benefits of tactical concealment that hint at rewards. Subtle indicators: curving, ascending streets, light gradient, changes in architectural tone, rate of decoration, scale, etc.

## Peter F. Smith

Spatial Definition – the articulation of townscape through intermediate small spaces, piazzetas, monuments, sculpture, landscaping constituting landmarks or urban nodes clarifying the urban structure.

Surprise – Unexpected vistas and special views through fissures in the enclosing streetscape or unexpected views of a distant landscape.

Creative Ambiguity – Counterpoint between hereness and thereness, the role of the bisecting arch, and the margin between streets and square.

Bi-Polarity – Diametrically contrasting situations such as dense urbanism against expansive green space or between contrasting sides of a street, or buildings and water. Bi-polarity between city and landscape, such as background of mountains.

Fatigue Factor – In streets the ratio of perceived distance to rate of visual enroute interest. Incidence of intermediate goals breaking up perceived distance.

Security – Remains of historic boundaries – town gates, symbolic weight of "within the pale."

Social Attractor – Socially significant spaces, streets that have spontaneously assumed ritual status for social interaction and display.

Hierarchical Profile – The build-up of expectation through architectural expression, the hierarchical treatment of space and architecture leading to the urban climax of the center.

The critical fix – Architecture and space configurations that cohere into compositions of heightened aesthetic significance. Key viewpoints.

## Peter F. Smith

Convergent Space – The Piazza

Socially Intensive Space – Collective meeting places by common interest.

Civic Space – Urban configuration that epitomizes the city; the formal expression of civic super-image.

Multi-layered Space – Representing the profile of life; church, secular, market, the encapsulation of urban meeting.

Emblematic Space – Space focusing on an emblematic object; the consensus location for emotionally charges civic or national feeling.

Bi-modal Squares – The articulated square – linked major and minor squares.

Secondary Squares – spaces which offer relief from the insistent onwardness of streets whilst also articulating the fabric of the cities.

Passive Space – Quiet refuges for reflection and withdrawal.

The Linear Piazza – expanded linear space to accommodate the market, often without permanent covered market structures.

Green Space – Central area green lungs of high environmental and aesthetic value. Inner urban parks, legacy of 19th century philanthropists. Linear parks penetrating from countryside into inner urban areas. Urban green squares. Green space around and within buildings.

Special Buildings – Individual buildings and groups of buildings that are of particular architectural or historic value should be identified and value rated irrespective of the listing system.

# Landscape Theorists in the Spectrum of Judgments of Taste

## Applying The Analysis

The investigation into these landscape theorists offers no answer to the question of whether or not there is a right and wrong in judgments of taste. If anything, they reveal that there is no right or wrong, simply a collection of variables that fit along a spectrum for normativity and subjectivity that is constantly shifting and changing. If judgments of taste occupy a moderate place between judgments based on feelings and those based on observations, then these designers clearly fall into deferring zones. The study of aesthetics should be used to criticize an experience in terms of appropriateness, not establish a universal truth based on practical reasoning, as we saw in the examination of Schouwburgplein versus the Lurie Garden. Design should be approached like a gestalt, as Alan Jacobs illustrates by breaking down the various parts that make up the greater whole of a Great Street. What happens when a designer drifts too far out of the zone of judgments of taste? Their creations become either too intangible to create in the real world, as is the case with Tuan who remains a theorist, or too inflexible to maintain a *long life, loose fit* principle, as is the case with the Lynchian District.

# Summary

In the world of design today, aesthetics is considered secondary to programming, ecology, and the given social needs of the current time. This thesis examines the need for aesthetics as an integral part of the programmed landscape. The significant push toward process-oriented, sustainable landscapes that look like their intended function should be counterbalanced with an understanding and prioritization of aesthetics.

The theory behind this thesis is centered in judgments of taste. Judgments of taste occupy the area where subjective interpretations of beauty overlap the normative interpretations of the world. This is the focal point of this study because it gives legitimacy to what was once thought a purely subjective realm. This zone affords the ability to have the best of both worlds, creating subjectively universal judgments. There is currently a need for designers to seek a balance between hierarchical, data driven observations and intuitive, internally driven sensations: judgments of taste allow that to occur.

Finding the balance between these zones is the first step in creating more holistic places, and holistic appreciation of the world is key to aesthetic perception. The science behind observation and perception is examined from a basic neurological standpoint as well as the relative design principles that are essential to understanding aesthetics. This area of the research concludes that while sensory-mental equipment is flawed and internal reactions differ, there are universally shared mental processes that lend validity to judgments of taste.

Balance between subjective and objective worlds that is so essential to good design typifies the aesthetic approach to place making. At the end of this thesis, the established balanced aesthetic perspective is used to analyze several landscape theorists and reveals a collection of variables that fit along a spectrum of normativity and subjectivity that is constantly shifting and changing. What happens when a designer drifts too far out of the zone of judgments of taste? Their creations become either too intangible to create in the real world or too inflexible to maintain a long life, loose fit principle.

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# Notes

An

# Aesthetic Approach

## To Place Making

A senior project presented to the Landscape Architecture Department of the University of California, Davis in partial fulfilment of the requirement for the degree of Bachelor of Science in Landscape Architecture

Rebecca Fox 2010

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