A Study in Veneer Culture
Abstract

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The term Veneer Culture addresses the displacement of the accepted notion of substance within contemporary culture’s fetishism for appearances and image. It focuses on the pejorative interpretation of the veneer, while identifying this ‘artificial skin’ as an intimate part of people’s lives. With architecture as the focus, a history of veneering is traced in order to expose the depth in meaning of this thin layer. This study isolates veneering as the element that has, and still does, effect the way culture is produced and consumed.

A Study in Veneer Culture consists of two methods of investigation: the research and theoretical explanation of production and consumption in culture, and a design project that proposes how architecture can be reintegrated into a consumptive society. The essay suggests that architecture is consumed through the concealment and seduction of the veneer. Thus placing the cultural relevance of architecture on the veneer. The research is translated into a design investigation that begins with a series of small models exploring tectonic ideas based on the veneer and a series of experiments that focus on the design of transparent and temporal veneers. The final method of investigation applies the previous techniques in a specific design proposal: A Design Exchange, which is developed and executed with the idea of a place to sell architecture.
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INTRODUCTION

Mr. and Mrs. Veneering were bran-new people in a bran-new house in a bran-new quarter of London. Everything about the Veneerings was spick and span new... if they had set up a great-grandfather, he would have come home in matting from the Pantechnicon, without a scratch upon him, French polished to the crown of his head.

For, in the Veneering establishment, from the hall-chairs with the new coat of arms, to the grand pianoforte with the new action, and upstairs again high to the new fire-escape, all things were in a state of high varnish and polish. And what was observable in the furniture, was observable in the Veneerings- the surface smelt a little too much of the work shop and was a trifle sticky.

— Charles Dickens, Our Mutual Friend
Introduction

In his 1865 novel, Our Mutual Friend, Charles Dickens created a mental picture of the Veneerings as a family whose thin outer layer, high gloss, and attractive manner concealed a shoddy, inauthentic, crude, core. Dickens' pejorative portrayal of the Veneerings is a metaphorical criticism of a disjunction between appearance and substance. The Veneerings represented the deterioration of chivalry and courtesy, community and celebration, genuineness and craft, values that were threatened by the mass production and distribution of commodities expanding with the Industrial Revolution. Dickens' portrayal criticizes the superficial nature of high society by connecting this deterioration with the ways in which the Veneerings emphasized the manufactured image. He invented the Veneerings as a means of illustrating how this seductive appearance entirely concealed their imperfections. The Veneerings of the world, through this seduction and concealment, exist entirely within an illusion. This externalization of substance onto the surface represented the displacement of values from an idea of reality, to the preference for rebuilding, or the replacement of reality with a veneer.

Although Dickens wrote Our Mutual Friend nearly a century and a half ago, the superficial nature that is expressed by the fictional characters, the Veneerings, is still apparent in contemporary culture. The powerful life forces of production and consumption have become increasingly influential
in the fetishism of appearance, particularly in the accelerated diversity of the Postmodern era. One only has to look as far as the suburbs of any North American city to realize the form that the constructed consumer need has taken. This artificial landscape is characterized by acres of green grass that grow in any type of climate, large mega-markets tapping into the international production of food, miles of paved highways supporting the excessive use of the automobile, the abundance of fast-food restaurants, and the sprawl of the developer home. All these factors contribute to the construction of our contemporary world. They have led to a displacement of the sense cultural specific environments, or even the possibility of identifying with these landscapes. Instead, contemporary culture favours the notion of replacement of environments with a controlled artificial landscape. The idea of construction has been rethought in relation to the concept of re-building. These elements are an indication that we have little common life and what seems to hold us together is an impersonal design of the commodious surface that promotes feelings of self-reliance and individualism.

Science has given rise to technologies that encourage these feelings of individuality. Inventions, such as the automobile, telephone, facsimile and television, increase the possibility of a physically isolated life. Simultaneously, these products connect the individual into the continuous flow of production and consumption. Individuality is promoted through
the desire to obtain objects, but the actual consumption of commodities places the individual within the strategies that are perpetuated by the market place. Thus, the individual is a token or an identifiable group of individuals that are viewed as a market niche ready and waiting to be consumed.

In North America, new technologies and this new lifestyle has contributed to living in the midst of an unreal world. By participating in this world, society allows for the manufacturing and reconstruction of an ideal version of the material world, placing their desires on the surface application of an artificially constructed image. Biological developments make it possible to manipulate cosmetic appearances, manufacture flesh, and genetically design humans. Computer manipulation and generation seduce the onlooker's body with sensuous images that dissolve into pixels of coloured light before their intense gazes. Films, such as Terminator, Bladerunner, Titanic, Toy Story, and The Trueman Show blur reality with a reconstructed fictional production of the world or the representation of an unreal world. Artificial intelligence, virtual reality, real time, cyber space and artificial neural networks have become a part of our everyday vocabulary. Culture has fully accepted the artificial appearance, not as real, but as a reality.

Ironically, the importance placed on appearances and image, like the
narcissistic Veneerings, is still viewed as a representation of immoral or untruthful set of values. This dichotomous view towards the disjunction of appearance and substance has resulted in the thin, disembodied superficial nature of commodities and the displacement of traditional oppositions, such as interior/exterior, public/private, body/machine and appearance/reality. However, contemporary culture has become increasingly complacent toward the importance and the insistence of the production and consumption of authenticity. North American culture is materialistic and the construction of appearances is designed for the visual consumption of our objects, bodies and countenances, giving an appearance of reality and placing our desires on the thin outer layer of the veneer. The intention is to create a deceptive appearance to display a desirable image. The open qualities of replaceability, reproduction and rebuilding have taken the 'place' of original unity. Therefore the accepted notion of authenticity and substance, based on the knowledge of the origin, requires questioning and re-evaluating. It is this disembodiment of place, thus leaving a surface appearance or image, and the displacement of the body through the manufacture of an artificial skin, that has led to the connection of veneering with image and in turn to the idea of Veneer Culture.

Veneer Culture implies that the values of a culture are displayed on the surface of their artifacts. This describes the manufactured appearance of a
group of people, and at the same time, their intimacy with the surface that characterizes that appearance. Within the concept of Veneer Culture, authenticity is based on consumption rather than production, placing value on the image or surface appearance created by the process of veneering. Consumption, as it pertains to Veneer Culture, can be understood as the procurement of an image through the transformation of a material object. Production, on the other hand, is characterized by the inner workings and assemble of an object: a construction technique. Even though veneering is a construction technique, the image is the initial concern and veneering is the masking of the material reality and nature of production. Despite derogatory views of the veneer, my study in Veneer Culture focuses on the veneer as a consumptive mechanism that gives definition to cultures and their artifacts. This analysis will show how the use of the veneer places the emphasis on image and how that image determines the authenticity of the cultural artifact.

Through the description of the veneer in this way, I am illustrating that substance does not necessarily reside in the functional production of objects, but in the constructed consumer image. The marketing of products is a tool for building this constructed consumer need and creates the perception of necessity while concealing the superfluous role of the product in an individual’s life. The idea of Veneer Culture is that a disjunction between appearance and the way that an object is produced is desirable. Therefore, Veneer Culture is the understanding that the reality
the reality of a product is not based on how it is produced, but on it's surface consumption. This implies that the veneer determines the authenticity of an object and its ability to become 'real' to a culture.
Chapter 1

STARING AT THE SURFACE

Surfacing

When you have to attended to things of that sort, to the mere incidents of the surface, the reality - the reality, I tell you - fades. The inner truth is hidden - luckily luckily. But I felt it all the same.

— Joseph Conrad, Heart of Darkness³

³ Joseph Conrad, Heart of Darkness
Surfacing

In a 1990 lecture at Harvard, the architect, theorist and professor Raphael Moneo posed the questions: “Is it possible to convey a sense of reality with a veneer system? Perhaps we should question whether or not this sense of reality is needed? In any case, the architectural answer to the veneer facade system will be an issue in the coming years.” With this realization, Moneo has simplified and isolated the dilemma of contemporary architecture. These questions are asking us to come to terms with appearance and substance, and production and consumption in contemporary culture. Moneo challenges us to understand authenticity in modern culture and to re-evaluate the craft of architecture as the craft of the veneer. However, Moneo’s statement also presents the difficulty of its suggestion, that is, how to define the veneer? All veneers, in one way or another, are meant to perform the tasks of seduction and concealment, but the allusive nature of the veneer is due to an acceptance of certain types of veneers and a rejection of others. Not to mention the fact that there is a general disagreement of what constitutes an acceptable or unacceptable veneer.

The first objective of this chapter is to define the veneer and its relationship to construction through a variety of perspectives. The intent of the second section will be to understand precisely the craft of the veneer and the last section will address the disjunction between substance and
appearance by re-evaluating the role the veneer plays in the perception of authenticity.

The *Oxford English Dictionary* provides two understandings of the veneer. The first one, the literal and physical interpretation of the veneer, is defined as: "the process of applying thin flat plates or slips of fine wood (or other suitable material, as ivory) to a cabinet-work or similar articles in order to produce a more elegant or polished surface than the underlying material."\(^5\) This definition is also evident in the practical view of the furniture-maker. The furniture maker believes that the, "basic reason for veneering should be, .to cover uninteresting but sound and stable core timber with a thin layer of rare and more attractive wood, which in plank form may be unstable, or even constructionally unsound."\(^6\) This point of view understands the veneer as a sophisticated surface finish with real material that requires skilled crafting. In 1728, Sir William Chambers, the Scottish architect, agreed with this view when he stated, "all the Pieces thus formed with the Saw...they vaneer or fasten each in its Place on a common Ground," and also, "The whole is...polish’d with the Skin of the Sea-dog, Wax, and Shave-Grass as in simple Vaneering."\(^7\)

However, in more recent times this process of veneering often utilizes substances that emulate the more exotic materials with the intent of creating a deception. This tendency to construct an artificial appearance...
relates to Oxford’s second definition of the veneer. This view is defined as, “merely outward show of appearance of some good quality,” and, “to invest with a merely external or specious appearance of some commendable or attractive quality.” This definition can be further examined in terms of its metaphorical connotations, which associates the veneer with a superficiality or the construction of an image. The intricate weave of these two definitions begins to formulate the complexity of Veneer Culture.

Dickens’ rendering of the fictional Veneering family is an excellent illustration of this web of the literal and metaphorical use of the veneer. He described his perception of the veneer by shifting his description back and forth between the furniture, the house, and the family to reveal a superficial environment, thus commenting on, not only the lack of genuineness of the Veneerings, but also the superficial nature of the applied surface. Throughout the nineteenth-century this pejorative view of the veneer became increasingly apparent. For example in 1847 Tennyson stated, “And one Master as a rogue in grain Veneer’d with sanctimonious theory.”9 Farrar in 1874, wrote, “a savage barbarian with a thin veneer of corrupt and superficial civilisation.”10 Also, Ballantine, in 1882, stated, “[The] heartfelt courtesy ... was replaced by a superficial veneer of forced politeness.”11
This prejudice against the veneer remains a point of discourse among critics and culture alike. To most, the act of surfacing is a deception or illusion that debases reality by constructing a mask. The "mere incidents of the surface" separates the gaze of the onlooker from the "inner truth" that is hidden by a visual seduction. In a sense, the veneer is perceived as unreal, inauthentic and dishonest. In terms of architectural criticism, the theorist Michael Benedikt, in his 1987 book For An Architecture of Reality, gives a contemporary view and illustrates the ambiguous distinction between a real and fake veneer. He calls for a "direct experience of the real" and believes that one of the principles to achieve this is through materiality of architecture. His position is that, "veneers are fake if and when they suggest solidity and consistency of material throughout the piece. (When they do not, they may function as casings, crusts or skins.) Most plastic veneers are doubly fake: they disguise not only the lack of correspondence between surface and interior, but also the nature of the material in the first place, like a decoy."¹²

Benedikt’s perception stems from the nineteenth-century view of the veneer. For both Benedikt and Dickens, the veneer is understood as an artificial appearance or a disguise that conceals the truth. Dickens spoke of the veneer as a metaphor for the social problems of nineteenth-century England; Benedikt understands the veneer as material problem with our environment and architecture. Nevertheless, the act of veneering has

⁹ - Chrome Ionic Capital

¹²
persisted in cultures for centuries. In spite of Benedikt's initial statement, he acknowledges that the veneer has historical relevance:

...the forces of economics, the age-old desire of clients to have more precious materials and effects than they can afford (together with the ambitions of the architects along the same lines), the existence of an enormous body of precedent that includes some of our most revered examples of fine architecture (Palladio’s stucco/stone, for example) - all these make an insistence on authenticity in material somewhat quixotic.\(^\text{13}\)

Regardless of their different opinions, Dickens and Benedikt are both looking for authenticity. The historical summary of architecture in this essay will reveal the veneer as a significant part of architecture and culture regardless of the extent of its specious nature.

Based on the simplistic nineteenth century view, the process of veneering has been discriminated against, while monolithic construction has been revered as the more authentic means of building. Monolithic is considered to be solid masonry or concrete construction and is thought of as honest, real and craftsman like, revealing everything, including perfect joinery, structural means and consistent materials. On the other hand, layered construction, the method most associated with the veneer, is defined as the concealment of a structural framework with a weave of thin layers of materials breaking the assembly and labour into specialized components. This distinction would limit the veneer to an industrial assembly, which is simply unjustified. It also connects the veneer to the
reputation of modernization, that is, a decline of handcrafting with the mechanization of processes and the displacement of commodities in culture. The definition of monolithic and layered construction reveals an interesting difference in the way architecture is produced and consumed. In a sense, this categorization of the veneer understands it as a less sophisticated and inauthentic method of construction.

Edward Ford, in his two books *The Details of Modern Architecture*, and *The Details of Modern Architecture Volume II*, he provides a more accurate investigation of the veneer. In his argument, he acknowledges this issue of good and bad construction during the development of Modern architecture. He explains the general perception of monolithic and layered construction as; "...monolithic construction is good, that layered construction is bad, that anything that is revealed is virtuous, that anything that is concealed is wrong, that good building consists of massive solid load-bearing concrete walls, that bad construction consists of masonry-clad steel frames." Even though Ford believes that this notion of good construction is not necessarily correct, he acknowledges that there is a prejudice against the process of veneering. The opinion that creates this prejudice is that monolithic construction is a pure expression or a truthful display of material because the surface of the wall is the same as the interior: what you see is what you get.
This opinion is usually based on ancient or medieval architecture, but as Ford points out these models tend to produce only an appearance of solidity. He states, "The idea that walls in ancient or medieval architecture were monolithic was largely an illusion. Marbles have always been veneered, interiors have always been plastered, and even in a simple stone wall the quality stone was always placed on the faces." The argument that veneering occurred in ancient cultures is evident in the Roman's application of facing to solid masonry. For example, Vitruvius states that, "...the house of that most potent king, Mausolus, ... though decorated throughout with ... marble, has walls built of brick ... covered with stucco so highly polished that they seem to be as glistening as glass. That king did not use brick from poverty; for he was choked full of revenues, being the ruler of all Caria." The use of the veneer in the palaces of kings proves that it was not seen as inferior, because royalty naturally could have afforded solid materials and did have walls of masonry, dimension stone or even marble.

However, even in ancient architecture there was still some discrepancy surrounding the use of the veneer. Vitruvius, in support of the veneer states, "...I think that one ought not reject buildings made of brick-work, provided that they are properly 'topped'." This condition implies that a good veneer is determined by its visual effect, as well as the careful

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15 Opus Reticulatum from the Thermae of Hadrian's Villa at Tivoli

16 11 – Opus Reticulatum from the Thermae of Hadrian's Villa at Tivoli

17 Surfacing
assembly of the inner core. Vitruvius further described the less
prestigious process of rubble-filled wall construction:

... the facings are finished, but the other stones left in
their natural state and then laid with alternate bonding
stones. But our workmen, in their hurry to finish,
devote themselves only to the facings of the walls,
setting them upright but filling the space between with a
lot of broken stones and mortar thrown in anyhow. This
makes three different sections in the same structure; two
consisting of facing and one of filling between them.\textsuperscript{18}

Vitruvius did not question the presence of facing and he understood its
importance as a means of displaying a desirable image, and visual effect
and its ability to conceal the unattractive Roman masonry construction.
To Vitruvius, the success of the surface's visual effect was due to the
ability of the core to serve the surface, but the surface layer remained the
primary concern.

The tensions of the surface throughout history seem to relate to the
freedom from a material reality and the construction of a new more
impressive reality. For the Romans, this meant technological
advancements in masonry and the disguising of this masonry with
'facings' or 'toppings'. The Romans used the veneer to give the
appearance of their classical ancestry. Through their technological
advancements, they were able to go beyond the limitations that were
presented by the realities of the materials traditionally used in masonry
construction. This is similar in the case of medieval architecture. The
craft of the surface was to impress and obtain, through the gaze of the on
looker, a visceral reaction, and to imply, through materials, a
metaphysical reality. The mosaics and murals covering the cathedrals
were an applied skin of gold and colourful images that were a
representation of a collective reality based on the theosophical world of
Christianity.

The point is that monolithic construction required some form of surfacing
to make the structure relevant to culture. This disguising of masonry was
a means of constructing culture. Otto von Simson, author of The Gothic
Cathedral, makes this point when he states that, “in Romanesque or
Byzantine architecture structure is a necessary but invisible means to an
artistic end, concealed behind painted or stucco ornament ... and, indeed,
the entire edifice was often but a scaffold for the display of great murals or
mosaics.” It is evident that a good deal of effort was spent on the
covering of poorly crafted masonry, yet this facing was not a
compensation of poor craftsmanship because where masonry remained
visible the masons exhibited perfect craft. The intent of surfacing the
cathedrals was to attract and maintain the gaze of the worshipers, to
create a complete visual encounter and calculated experience which
supported the beliefs and rituals of Christianity.
Even though there is a great deal of evidence that illustrates a thin coating was applied to monolithic core construction, there is still contempt for the deceptive and excessive nature of the veneer in contemporary culture. Ironically, the idea of appearance as a result of its construction is thought of as desirable and real, while the concealment of construction and manufacturing of an image is deceptive. Therefore, the answer to Moneo’s question of the veneer system’s reality is more complex than the simple distinction of monolithic and layered construction. The two Oxford definitions mark the veneer’s relationship to reality. The literal definition disguises the realities of materials. Veneering allows for the use of more desirable materials, and their surface qualities, while eliminating the realities of these materials; their unstable and impractical properties. The second definition, however, is associated with image and provides the reality of the veneer. The realness of the veneer is achieved through image. Therefore, the reality of a veneered system is its ability to transform production into a consumptive visual effect. That is, the visual encounter with a surface disguise has been the basic concern to a construction because what you see is the surface.
The Craft of the Cabinetmaker

If one has loved the surface of things for a long time, one will finally look for something more. The "more," however, is already present in the surface one wants to go beyond.

— Citation from M. Seuphor in Mondrian's notebook
The Craft of the Cabinetmaker

The common intent of veneering is a process that transforms commodities into objects of desire. This can be understood in terms of the surfacing of material objects as well as the external appearance of an individual’s personae. As in Mondrian’s notation, our basic instinct is to go beyond the surface to locate meaning and substance, to resist the seduction of the veneer and to seek the true importance and necessities in life. However, as the quote also implies, going beneath the surface only reveals how the surface is produced and the search for “more” is understood as a prop for the realities inherent in the surface. The use of a veneer is a means of manufacturing a surface appearance for consumption by the onlooker. It is the crafting of an image which is associated with an acceptable reality.

As the definitions in the previous section imply, veneering consists of two means of manipulation: the crafting of the object and the crafting of image. The invention of an object of desire is the foremost criteria in the making of a product and a product can be both a commodity as well as an image. In contemporary culture, the creation of an object of desire is usual based on the construction of image. The crafting of a product is its ability to be consumed by the majority of the population. Thus, the success of a product is determined by its ability to correspond with a certain image and is based on the quantity sold, rather than the durability and quality of the object. This has placed the emphasis on the surface.
appearance of the product. For example, the ad campaign, "everyone wants to be like Mike" used by Nike, suggests that if the consumer wears Nike products they could become as good an athlete as their hero, Michael Jordan. Even if this is impossible (which it is in most cases), the consumer can still have the same shoes as the cultural icon. In this case, the desirable image is produced first and acquired by wearing the same shoes and clothing as Michael Jordan and not by the physical training necessary to become and exceptional athlete. In a sense, the veneer, enables for the mass consumption of image, whether it is individually, as in contemporary culture, or collectively, as in the previous examples of Roman and Medieval architecture.

It is difficult to identify precisely when manufacturing became focused on the individual consumption of objects. Nineteenth-century critics, like Dickens, attribute this shift to the mechanization of the Industrial Revolution and the accessibility of products to the mass population, at a cost to the traditional craftsmanship of the object. This would also be consistent with the distinction of monolithic and layered construction discussed earlier. Despite the relevance of the industrialization of commodities, this emphasis on the individuals ability to craft their own image, through the consumption of desirable objects, can be detected as early as the seventeenth-century.
To describe the craft of the veneer it would be useful to look at its application to furniture. Similar to architecture, the process of veneering furniture has existed throughout history. Pliny, in an early documentation of furniture-making from 77 AD, suggested to the Greeks and Romans that veneering was a method that uses expensive material sparingly and economically. The technique of veneering furniture was even used as far back as ancient Egypt to apply colour and pattern of rare materials, such as exotic woods, gold and precious stone, to furnishings. However, the word veneer has evolved over time from its specific origins in the seventeenth-century and the crafting of furniture. The origin and evolution of the word veneer in German is *furnier, fournier and former*; in French veneering is *fournir* or furnish, in Dutch it is *finer* and in English it evolves as, *fanneer, vaneer, venear* and *vineer*.22

It was not until this time, in Germany and Italy, that the veneer became a specialized craft, originating simultaneously with the cabinet. At first the cabinet was a simple oblong box with drawers and doors that was made by the jointing of solid wood for the purpose of storing and displaying valuables, such as jewelry. Then it gradually became more elaborate, a work of art in its own right, supported on a base of intricately carved legs, and fitted with carved or painted panels. The monolithic wood construction was enriched with ivory and tortoiseshell, silver, copper and brass inlays. Eventually, this elaboration evolved into the application of
thin sheets of rare wood, ivory, stone and other precious materials to a carcass of solid common timber. The veneer was applied in different patterns, such as marquetry and oystering, to decorate the cabinets. The advantage of this surfacing was the ability to cover the cabinets with the most economical use of rare and expensive materials. However, the motive of veneering was not solely expense driven. It was also an easy way to display an image of refined finish and to produce an object of desire. The veneer made the surface alluring, creating a visual encounter with the finish.23

The crafting of the veneer made such cabinets desirable in other countries; French cardinals imported cabinets, commissioned work to be carried out by Italian and Flemish craftsmen and Frenchmen were sent to learn the foreigner’s new skill. Veneering became so popular that it was eventually perceived as, not only the craft of cabinetry, but also was linked with the image of the upper echelon of society. The result was the establishment of a new trade, cabinet-making. The cabinetmaker became the expert in veneering, making pieces that were beyond the joiner’s capabilities. Also, the popularization of a new grander type of furniture distinguished a difference between the every day, ‘occasional’ furniture, and the rapidly increasing range of the flush surface furniture, described as the ‘politer way of living’.24
In addition to the distinction of crafting finer furniture for the elite, the 
veneer enabled individual cabinetmakers to build an image of their own.
A successful cabinetmaker may have had a workshop of several assistants 
and would have published pattern books of popular designs. This 
contributed to the production of the cabinetmaker’s image and increased 
the desirability and consumption of their objects. For example, the 
seventeenth-century cabinetmakers Thomas Chippendale in England, 
André Charles Boulle in France and Duncan Phyfe in America became 
very popular because they all published designs of their furniture. The 
names of these cabinetmakers are as familiar to us even today as they were 
back then. The acquiring of a “Chippendale”, or a “Duncan Phyfe” is still 
a means of obtaining an image by purchasing an object of desire.

As the books of the cabinetmakers became an important source of ideas 
among craftsmen, it became difficult to ascertain whether a piece was 
even made in the master’s workshop, let alone the extent of the 
cabinetmaker’s involvement. The popularity of the veneer also led to the 
publication of pattern books by designers that had not mastered the skills 
of flush surface finishing or any other furniture craft. For instance, the 
eighteenth-century Italian architect, Giovanni Battista Piranesi, published 
designs and it is very unlikely that he ever made furniture or even had a 
workshop. The publications illustrated the tastes in the decorative veneer 
of furniture, thus making the surface, rather than the jointing of the
furniture, the desirable aspect of a piece, marketing the objects while increasing the prestige of the cabinetmakers and the consumers who purchased their products. This placed an emphasis on how the cabinet looked, rather than how it was constructed and shifted the importance on the consumption of an appearance rather than the production of the product. Eventually by the mid-1800's, as Dickens' commentary suggests, the quality and durability of a piece would become compromised. The surface would split, bubble and crack, because the crafting of the object had greatly deteriorated, placing the veneer in ill repute.

Before this deterioration occurred, the cabinetmaker was an integral part of constructing the image of European culture. Further, the popularity of the veneer in England was greatly assisted by the 1666 Great Fire of London. The destruction of 13,000 houses freed the city of much of the rambling timber-framed medieval fabric. Since this left a large portion of the population homeless, the necessity for speedy construction and manufacturing was essential. Materials and labour were scarce, rooms were smaller, and the large solid oak furniture of the past age was unpractical and undesirable. Foreign cabinetmakers flocked to England tutoring native craftsmen. Veneering began to replace the time consuming decorative carving as the means of ornamentation of furniture. Also walnut, the fashionable wood of Europe, was no longer able to fulfill
the demand when used solid, and available skilled craftsmen in veneering were able to create a much more seductive surface with exotic materials like ivory, brass and precious stone.

As a result, high society renounced the joiner in favour of the more versatile and fashion-conscious expert in veneering.

Although the importance of the cabinetmaker’s expertise in veneering was about the fine craft of furniture, it was also about the creation of a certain life style. Lead by the strengthening of the monarchies' authority during the 1600’s, the use of the veneer established a new image of cultured society in Europe. Monarchies needed to reinvest a sense of moral accountability and political control to prove their superior status in culture. The veneer was not thought of as the cheap way out, but a common sense approach to creating an appearance of wealth. This life style and the popularity of the veneer could not be created exclusively by furniture though; it required a much grander edifice as a kind of showroom of elegance. In fact, this politer way of living was never more evident than in the popularity of Louis XIV and his construction of the palace at Versailles.

Louis XIV and Versailles can be considered as this benchmark of refinement and taste in the seventeenth-century. Others, like Charles II in England, tried to emulate Louis grand palace with similar designs, but
had to settle for a diluted version, as was constructed at Whitehall. Even though most could not afford a Versailles, the cabinetmakers offered a piece of the King’s life style with an “authentic” Louis XIV piece. It was the construction of Versailles, and the objects in it, that set the standard, but it was the manufacturing and selling of the smaller objects that crafted the image of refinement. In other words, the bigger edifice was created to sell the smaller objects and the smaller objects reinforced the social status of the King and by association the country. Additionally the smaller objects could be made available for consumption by a greater spectrum of people. The purchase of an André Charles Boulle cabinet would equate the consumer with Louis XIV. With his crafting of both object and image the cabinetmaker provided a life style, or at least the appearance of a certain life style.

In France, the preference for the seductive surface, during what is known as the French decorative style, was due largely to the Kings 1661 announcement that he was going to take over the governing of France in person. The King needed to build an image of power and prestige, of taste and refinement and of seduction and desire. This was to exhibit his authority over France, establish the admiration of French royalty and French culture among other European countries, and make his reign a rival to any other regime in history. Louis believed that he was the greatest monarch in Europe, the living embodiment of Apollo the Sun.
God, and thus paraded his objects of seductive surfaces, such as veneered furniture, wall coverings, draperies and woven rugs, to display his image of refined manner and personal power. Louis' goals were made possible by the seductive and visual effect of the veneer.

The popularity of Louis XIV and the explosion of the decorative surface are perhaps more accurately charged to Jean-Baptiste Colbert, Louis' gifted Finance Minister. Voltaire remarked of Colbert's founding of the Academy of Architecture in 1671, 'A Vitruvius is not enough; one must have an Augustus to employ him.' If the latter-day Augustus was Louis XIV, a man of taste and one of the greatest patrons of the arts, then he looked to Colbert to supply him with the money he needed to develop an appearance of higher quality. Colbert reformed the financial structure of France making available the large sum of money that Louis needed to finance the building and furnishing of Versailles. Intending for the decorative style to reflect the glory of France, Colbert founded an Arts Commission in 1663, Academy of Architecture in 1671, and most importantly the Manufactures royal des meubles de la Couronne.

The Manufactures was an organization of facilities subsidized by Colbert that produced objects of all kinds for the royal palaces. Meubles, produced by these factories, translates literally as movable and refers directly to the movable furnishing of the house, and the building was
called *immeuble* or immovable. The importance of creating movable furnishing, or the establishment of any of the organizations for that matter, was to make the King accessible to the rest of France. The King would travel from chateau to chateau displaying to the citizens of cities and small towns, not only his extensive entourage, but also his objects of refined finish. The walls and floors of the chateau were covered with a surface that displayed his personal refined taste and iconography. The lightweight veneered furniture exhibited to France the excessive decoration of the French style reinforcing the riches of the monarchy; thus, in turn reinforcing the high status of the French state and its subjects. Louis had surrounded himself with sensuous veneers produced by the new factories that were dedicated to the crafting of objects and image; thus fixing the gazes and tastes of, not only the French, but all of Europe.

These organizations not only became a design machine for the glorification of an absolute monarch and were dedicated to giving an expression to Louis' image, but they also create a consistent style of ornament for what became known as French. Versailles was the expression of this superior French taste that became the epitome of royalty all over Europe, displaying opulent, excessive and highly finished, surface treatments. In the book by George Savage, *French Decorative Arts*, a quotation from the Sun-King’s doctor, Martin Lister, shows a common
impression of this new Grand Manner of Versailles. His journal is quoted:

As the Houses are magnificent without, so the Finishing within side and Furniture answer in Riches and Neatness, as with Hangings of Rich Tapestry raised with Gold and Silver Threads, Crimson Damask, and Velvet Beds, or of gold and Silver Tissue. Cabinets and Bureaus of Ivory inlaid with Tortoiseshell and Gold and Silver plates...[a reference to the cabinets of André-Charles Boulle and his followers]...but above all most rare Pictures. The Guilding Carvings, and Paintings of the Roof [i.e. ceiling] are admirable.... You can come into no private house of any Man of Substance but you see something of them: and they are frequently observed to ruin themselves in these Expenses. Here as soon as ever a Man gets anything by Fortune or Inheritance he lays it out in some such way as now named.28

Lister's fascination with the elaborate surfacing at Versailles describes how the veneer became associated with the King and his country. The interesting aspect to Lister statement is that he could detect the "Substance" of a person by the surface that characterized him and his possessions.

In contemporary culture, image has become associated with the substance of an individual and the craft of the object has become the ability to control and reproduce the same appearance over and over without variation. This control of appearance is integral to the selling of image because in order to be like Louis or Mike it is necessary to have an "authentic" item. This manufacturing of objects of refinement for the consumption of the individual marks a shift toward modernity. It is
important to realize that before mechanization took command of production, objects had to be desired. For example, the cabinet was desirable to the individual because of its association with a certain lifestyle and with the manufactured image of the monarchy. Without this important factor, industrialization would be unnecessary. Therefore, the formalization of veneering as a trade, a concept and a word is the beginning in a shift towards modernity. I am suggesting that the use of media, publications and organizations, and the veneered objects that they sold, constructed meaning and substance by creating objects of desire. Before this point, the concealment and seductive appearance of the veneer, or “facings” and “toppings”, was produced for the consumption by the individual in a collective manner. The craft of cabinetmaker represents the beginning of the constructed consumer need.
The Moral Surface

In my notes upon the buildings as they passed in my journeys, I have described two modes in which this kind of work was treated: the first was that practised in Venice—the veneering of brick walls with thin layers or coats of marble: the other, that practiced at Bergamo, Cremona, and Como—in which the marble formed portion of the substance of the wall.

These two modes led, as would naturally be expected, to two entirely different styles and modes of architecture.

The Venetian mode was rather likely to be destructive of good architecture, because it was sure to end in an entire concealment of the real construction of the work; the other mode, on the contrary, proceeded on the true principles, and took pleasure in defining most carefully every line in the construction of the work. It might almost be said that one mode was devised with a view of concealment, and the other with a view to explanation, of the real mode of construction.

—George Edmund Street, Brick and Marble in the Middle Ages

29
The Moral Surface

The question of authenticity is the primary argument that deters our acceptance of the veneer as a valid method of construction. The perception that contemporary culture lacks authenticity has been attributed to a pejorative view of how a product is made. The deterioration of the crafting of the object has helped to facilitate the crafting of image. This is exhibited in the monolithic and layered distinction, which understands that the closer materials are to their ideal form or natural “origin” the more authentic the object appears and places the substance of an object on the basis of crafting of raw materials. Thus, the authenticity of an item is based in the production of the material object, and the image is an imitation of the material object. This model of authenticity places production before consumption or the material object before image (see authenticity model #1) in the achieving of the ideal. However, this is an inaccurate determination of authenticity as it denies the importance of image in the construction of culture. I am suggesting that the manipulation of appearances, the creation of an object of desire, is the substance of a product, therefore, the substance of an object is its ability to manufacture an image.

In order to address the pejorative understanding of the veneer, it is necessary to take a critical stance against the conventional notion of authenticity. To do this it is also important to consider other perceptions. One view is that an authentic object is considered genuine or trustworthy.
and that it is an original item, like a piece of art. Another understanding is when an object is consequential. In other words, there is a direct impact having profound consequences on an individual's life, such as a gun. These two definition are not being questioned as determinants of authenticity. However, the idea of Veneer Culture suggests that an object does not necessarily have to be genuine or consequential to be authentic. Therefore a definition of authenticity is needed that addresses this historical presence of the veneer and the first model.

Authenticity can be understood as an object's capability of becoming morally accountable to culture's specific idealization of reality and its ability to achieve political control for the institutions that define reality. These two factors place the substance of a product within the honesty of both the constructed image and the production of an object's surface. A product is understood as real or authentic when image and surface is consistent with a culture's determination of what is morally right. This authenticity or moral correctness is usually determined by the institutions that have power, as was evident in the examples of Louis XIV and Versailles, Christianity and the mosaics, and the Roman Empire and the classical veneer. These shifts in control from one faction to another are shifts in consumption or the judgement of what is good. This model of authenticity (see authenticity model #2) places consumption before production or image before the material object. Therefore, the closer image is to the ideal form on a metaphysical level the more authentic it
becomes. The materials become the means of reproduction and transform into image. The veneer represents and contributes to the construction of authenticity by distinguishing the shifts in judgement of image and creating a difference between the appearance of the surface and the system of production.

This second model of authenticity is more understandable within the individualization of the consumption of commodities. Before this point, the consumption of objects was collective and the demand on production limited. Therefore production, being hand-made and associated with the "natural model", remained a very large ingredient in the construction of an object. However, as was implied with the advent of the craft of the cabinetmaker and the monarchy's serge for power, it was necessary to shift production away from construction and towards the crafting of the surface appearance. The veneer was a means of obtaining power in a concealed manner. It appeared democratic, giving the consumer the appearance of individuality, but all the while reinforcing the power of the Ruler. The veneer placed emphasis of craftsmanship on the consumption of the object rather than the production.

However, the first model of authenticity remains influential in shaping the negative opinions of the veneer and image, while the second model has been consistently implemented. The nineteenth-century rejection of the process of veneering, evident in the remarks of Dickens and the quotation
outlining Street's opinions, has been the basis for aspirations to the first model. Critics of this time held a general disgust for high society and their complacency or ignorance toward the social problems that were created by the Industrial Revolution. This disgust was also directed towards the veneered objects that characterized the authoritative figures in society. The contempt grew even greater as industrialization took over the making of more products and the life process of the past. There was a general deterioration of quality in products as well as the standard of living. The modern goals of accessibility of products, that inspired a certain image of prestige, had led to the deterioration of all that was good. Included in this malcontent was the guise of architecture.

Although the veneer had historically been applied to architecture, it had mainly been applied to solid core construction. With the new industrial method of frame construction, production became less intrusive on architecture allowing for less investment in time, labour and materials and even more emphasis on image. In addition, the power structure of society had shifted away from the monarchy and religion and towards the capitalist and industrialists, who had mastered Louis XIV's techniques of crafting image. Old forms of architecture, such as the Greek temple and Gothic Cathedral, were studied, adapted and applied, as typological models associated with architecture, to new forms of buildings. In a sense, the ornamental veneer characteristic of these styles became the method of selling a building to the image suave capitalists.
It is precisely this use of the historical models as a means of selling architecture that gave rise to the question of authenticity of the veneer. Along with the disgust of the commodious appearance given to the Greek and Gothic modes of ornament, the architect’s image deteriorated, as can be interpreted in the 1840 painting, ‘The Architect’s Dream’ by Thomas Cole. This perception of the pretentious architect on the pedestal gave rise to the necessity to determine what it was that made the architecture of the past relevant to culture. Driven by the reaction towards the industrial production of layered construction, and more directly the social status of the veneer, the search for authenticity became focused on the stripping of the artificial skin that had seduced culture.

Lead by the theorist and artisans of the Arts and Crafts movement, authenticity in the modern era became a search for the “true principles” and a “real mode of construction”. Theorists, like Street, felt the significance of Greek and Gothic architecture was not style, but the mode of construction. ‘The Primitive Hut’, the frontispiece of Abbé Laugier’s *Essai sur l’architecture* in 1755, became the metaphorical example of authencity in architecture. In this depiction, beauty and honesty in architecture is personified as a woman sitting on the earth as she gestures towards a structure made of trees. The engraving and the text suggested that authenticity in architecture should be based on the assembly of materials in their most original and natural state. This appealed to the
nineteenth century architects who were trying to shift architecture's image from the egocentric pedestal of excess to a rational down to earth system of construction.

Eugene-Emmanuel Viollet-le-Duc, a contemporary of Street and nineteenth-century restorer of Notre-Dame in Paris, was a supporter of monolithic construction as a means of reclaiming meaning in architecture. He criticized Roman architecture for the application of veneers and non-structural columns to brick buildings. He also condemned Louis XIV for his application of the veneer:

If, as remarked before, iron is destined in our modern buildings only to serve as a security for imperfect masonry, or to disguise its presence beneath parasitical castings, it would be as well for us to let it alone, and to build as they used to build in the time of Louis the Fourteenth, taking forms borrowed from a doubtful antiquity and overloading them with a hybrid ornamentation. But if iron is prescribed, not proscribed, be it understood, -we should try to find forms suitable to its properties and manufacture; we ought not to disguise it, but seek for those forms until we have found them.\textsuperscript{30}

In opposition to the disguise of the veneer, he used the Gothic cathedral as an example of the true principles of the architecture, and proposed that decoration should be inseparable from structure. Critics of the veneer, like Viollete-le-Duc, had a large impact on the Modernist's perception of authenticity and the derivation of the doctrine of monolithic construction.

This notion of authenticity, where the nature of the materials and an economy of means is made visible, was meant to achieve an appropriate...
expression of stability and good construction. The distinction, promoted by Viollet-le-Duc, was between the Gothic sculptor, who made the stone appear as flowers, drapery and human flesh suggesting softness, lightness and warmth, and the Gothic architect, who supposedly looked deep into the stone to bring out its inherent nature. This differentiation, to which the Modernists eventually subscribed, was seen as the separation between illusion and truth, necessity and desire, or ornament and structure. Ultimately, it is Viollet-le-Duc's dichotomous principles that have led architects to support the first model of authenticity.

However, not all architects and theoreticians of the modern era shared this preference for monolithic unfinished construction. Gottfried Semper, the German architect and scholar, supported veneering based on his theoretical research of the Greek temple. As Edward Ford describes, "... Semper, ... insisted that architecture was structure plus cladding and that the essential element was cladding itself." Semper developed an argument of authenticity built on Quatremere de Quincy's observation of the Greek technique of chryselphantine, an overlay with gold and ivory, and the discovery that the Greek temple was covered with colourful paint. To counteract the opinion that white monolithic stone was the model of morality in architecture, Semper derived his thesis, the "dressing principle".

In the essay Style in the Technical and Tectonic Art (1860-3), Semper's
defined his principle of dressing and encrustation as being, to string or bind and to cover, to protect, and to isolate, ideas which he felt dominated all of pre-Hellenic art. During the Greek period, Semper felt that the dressing became, "...highly spiritualized, serving beauty and form alone, more in a structural-symbolic than in a structural technical sense." Semper's terms, structural-symbolic and structural-technical, were derived from Karl Botticher's 1852 thesis and his terms *Kunstform* (art-form) and *Kernform* (core-form). Semper applied them to his dressing motive using the column as an example. Core-form referred to the functional support of a column, while art-form referred to how the function became apparent or the artistic manifestation and expressive nature of the column's role as a support structure.

Semper explained the moral accountability of the veneer as the distinction between art-form and core-form. He believed that the cultures of highest artistic achievement, the Greeks being one, 'masked the material of the mask.' The artists of the temples, Semper thought, represented, "the double myth, and its actors, the deities, as subject matter to be treated (as was stone in which he formed them) which he veiled as much as possible." This was to free the mythological figures of any material and symbolic nature or to make one forget the means and material of construction, which aspired to an expression of true human beauty and grandeur.
Semper thought that the architecture achieved its essential cultural meaning through the denial of its material basis. His dressing principle suggested that the paint, applied to the temples, assumed the role of the mask and concealed the white monolithic material nature of the stone. In an explanation of Semper, Francis Mallgrave, author of *Gottfried Semper: The Four Elements of Architecture and Other Writing*, states, “In essence, the wall dressing camouflages the wall’s material presence and through the successful exploitation of this metaphoric artifice (almost a ruse) the wall enhances its meaning as form.”37 In a sense, the temple was a theatrical stage where Semper’s concept of masking was fundamental in the performance of the religious event. Thus, the denial of material reality gave Greek culture meaning. Semper explained: “…the Hellenic building principle had to vindicate and nourish color as the subtlest, most bodiless coating. It was the most perfect means to do away with reality, for while it dressed the material it was itself immaterial.”38 This denial of the reality of materials was necessary, in Semper’s eyes, for the architecture to become a meaningful symbol.

Semper proposed that the Greek temple was not a spontaneous artful act of genius, but it was derived from a combination of cultural influences that existed preceding the ancient culture. As Mallgrave states, “…[Semper] posits the rather remarkable thesis that Greek polychromy found its historical genesis (and meaning) in the primal act of mat
making, the art of the ‘wall fitter’! Semper used the term ‘wall fitter’ to create an analogy with the clothing of our bodies and his concept of dressing architecture, tailoring a theory that outfitted the Greek temple with an ornate and colourful shroud. Mallgrave’s skepticism, however, has been shared by many who read Semper, not necessarily because his theory is unlikely, but because it is difficult to reason that the intention for the monolithic construction was to provide a backing for more culturally important wall dressing. I believe that Semper did not understand the monolithic construction as honest, but as a means of constructing a believable deception that reinforced the political control of Greek Mythology.

Similarly, the Gothic cathedral was not a construction of the real nature of the stone as Viollet-le-Duc suggests. Ford agrees when he explains the deceptive appearance of the vault: “If the vault emphasized the unique structural nature of the stone, it did so by endowing the stone with precisely those visual qualities that it did not inherently possess; lightness and thinness.” The true nature of the appearance that characterizes the vault is a well-crafted surface treatment, thus it is more a constructed image than it is an efficient structural system that requires every piece to maintain its equilibrium.
The structural appearance of the masonry should not be comprehended as a triumph of function, as some of the Modernists perceived, but as a delight in the constructed appearance of the surface and the visual graphic representation of the interplay of thrust and supports. In fact, the Gothic cathedral was meant to suggest, for spiritual reasons, an anti-functionalism to evoke a mystical experience, a celestial vision turning the viewer's perception of constructed stone and mortar into a heavenly sanctuary. Von Simson has argued that:

...neither rib or respond is ever purely 'functional.' The ribs certainly help maintain the vault, but are by no means so indispensable as once thought. The responds are so frail that without the bracing walls between them they could not support themselves, let alone the vault.... even the shape of the unequivocally structural members in the Gothic system is deliberately modified, often at the expense of functional efficiency, for the sake of a certain visual effect.\(^{41}\)

The tectonics illustrated by the Gothic system creates a visual illusion of a membrane-thin surface stretched over a sinewy web of ribs concealing behind it the true mass of the support structure, the flying buttresses. Therefore, in the Gothic cathedral, tectonics was not a naked system of function, but rather the translation of linear values into an applied graphic veneer that had more to do with reconfirming the beliefs of the worshippers, the vertical earth-heaven and human-God relationships, than maintaining a structural truth.
Ironically, Viollet-le-Duc condemned the excessive veneered surface of Louis XIV for being a disguise while, without realizing its deceptive nature, complimented the "moralistic" monolithic system of the Gothic cathedral. Viollet-le-Duc actually made a judgment of one veneer over another, favouring the more deceptive veneer over the more, albeit excessive, obvious veneer. His recognition that the Gothic system was a skeletal-skin structure acknowledged the concept of a thin-membrane (i.e., veneer) wrapping a groundwork. However, I believe he perceived the non-structural stone work of the Gothic cathedral as a moral surface because it appeared functional rather than (as in Louis's case) a pastiche.

The triumph of the monolithic notion of authenticity became more than a victory of one scholastic theory over another, it established an ideal of what was meaningful in architecture, and most importantly, it determined what was virtuous and moral. Regardless of who was correct, the debate itself positioned the veneer directly in front of the eyes of the scholars. In the case of Semper's understanding of the Greek temple, the veneer eclipsed for a moment, the truthful pure monolithic illumination of the white form, with the possibility of a whole new concept of substance in the temple, the Greek myth. Although the eclipse was brief, it obscured the perception of Greek art long enough to bring to attention the surface. For example, Friedrich Nietzsche professed, "Oh, those Greeks! They knew how to live. What is required for that is to stop courageously at the
surface, the fold, the skin, to adore appearance, to believe in forms, tones, words, the whole Olympus of appearance. Those Greeks were superficial out of profundity." Semper’s dressing theory was all about embedding the morality of culture in the surface of architecture.

Nevertheless, the lessons learned by the Modernists were that good construction consisted of a skeleton and skin, and that the function and nature of materials being used should be clearly expressed. As Semper’s theories were discarded as unlikely and farfetched, the Modernist mandate became to find the suitable expression that was alluded to by Viollet-le-Duc. The model of authenticity and substance, based on the correlation of construction and appearance, was understood as a guide that would rid architecture of the decorative veneer and facilitate the honest appearance of production inherent in industrialization. However, the question is, did the Modernists architects really dispose of the veneer or did they construct their own believable deception that reinforced the Modern mythology: a constructed consumer need?
Chapter 2
MODERN MYTHOLOGIES

The Naked Truth

A loaf of bread, whether white plastic sliced or a crusty brown, will always touch a line of sympathy in humanity. Bread that is disguised by manufacture is immune to ridicule on account of its noble and cherished past. It does not matter that it now lives in a long, slightly oily, plastic, sock-like bag and is so malleable that the sectioned slices can just retain their loaf form when the bag is held by its tail. When a loaf is squeezed, a muffled crackle of the slightly nauseating, bland, plastic bag is heard, not the crispness of the bread’s crust. Bread has become of secondary importance to its wrapping. Its taste subservient to the onastic mystique of the sockbag, a form of packaging now taken for granted. We forgive all the blemishes of packaging because bread is vital. It is so central to our lives that we eat it because its name is bread. It might be disgusting, but that is not the bread’s fault. Bread’s modern guise of disgustingness is the fault of its maker and for this reason it is forgiven.

—Ben Nicholson, Appliance House
The Naked Truth

In modern culture, the institutions of power that define our perception of truth, such as science, technology, politics and media, depend heavily on the transformation of material nature into a perceived reality. At the same time, these institutions deny a reliance on image construction in order to consolidate a position of authority in culture. Through the construction of an artificial environment that emulates nature, such as experiments in controlled labs, the restrictive viewing frame of the TV, and the creative interpretation of statics, they come across as factually based, absolute and impartial. The necessity to find truth has led to the disassembly and reassembly of nature with technologically advanced devices that function as a means of facilitating an image of truth by the transformation of the material world. This reconstruction of reality aligns modern culture with the mythological nature of the preceding institutions of power that they were rejecting. Generations of controlling institutions have worked to create an ideal world, albeit artificially. Not unlike the historic examples, modern culture has its own method of veneering that is a power mechanism which promotes modern mythologies.

This chapter illustrates how modernization was driven by the constructed consumer need and the command of media. It addresses the inaccuracy of the perception that Modernist architects derived a truthful means of production that enabled their architecture to become authentic. With the conceptual shift of authenticity from production to consumption, a new
perception of Modern architecture can be formed, one that places the veneer as the central component. This view understands modernization as a continuous notion of consumption that began with the individualization of commodities, like the cabinet in the seventeenth-century, through the industrialization of food in the Industrial Revolution, to the consumeristic nature of contemporary culture.

Architectural critic, Ben Nicholson subscribes to the production model of authenticity. Nicholson’s metaphorical comparison of bread and architecture realizes that the disguise of the manufacture has become the link that connects our desires to our commodities. The making of bread and even the bodily experience of its crust is divorced from our daily lives. Nicholson is suggesting that the modern guise of disgust falls on the lack of authenticity of production; he contends that it is “the fault of its maker”. The modern guise of disgust, according to Nicholson, is a result of the postmodern crafting of image with the intent of consumption and the concealing of the true product, the bread.

In a society where the production of commodities is relatively standardized, leaving little difference between the quality of one product or another, the artificial skin becomes the commodity. Take, for instance, the tomato. Paul Rabinow, author of the essay *Artificiality and Enlightenment: from Sociobiology to Biosociality*, explains that the tomato has been genetically manipulated to produce a skin that is conducive to modern...
culture. The DNA and RNA of a tomatoe are formulated in order to better withstand transportation, increase size and assure a plump red appearance. Scientists believe that the genetic tomato has completely taken over the original. The tomato is artificially constructed to become accessible year round and to every consumer.

Rabinow also recognizes the connection between the commodification of bread and architecture, but instead of attributing it to Postmodern culture, he correlates this consumeristic attitude to Modernist architecture. Rabinow explains the industrialization of the process of making bread:

the emergence of modern food, that is, food industrially processed to emphasize uniformity and commodified as part of an internationalization of world agriculture and distribution, can be dated to the period of 1870-1914. Industrial sugar refining and flour milling for the production of white bread was one of the first examples of a constructed consumer need linked to advertising, transportation expansion, a host of processing and preservation techniques— as well as, incidentally, the rise of modernism in architecture.

Rabinow further explains his connection to Modernist architecture as the emulation of the grain silo's as a model for a new type of architecture. However, I am suggesting the more profound correlation to be the constructed consumer need.

The Modernist crafting of a new architecture was similar to the rise of the craft of the cabinetmaker. Both had mastered the techniques of media, both recognized the institutions of power, and both constructed a new
image with the veneer. However, nineteenth century pressures to find authenticity in architecture based on the honesty of production, required the Modernist architects to reject the veneer, especially the veneers of Louis XIV. The Modernists were in search of a truthful honest architecture, at least the appearance of one, that would help to construct a utopian society for the new industrial age. In order to construct an ideal architecture for the Modernist ideal world, the traditional understanding of what was considered to be a truthful and civilized society had to be revised. The Modernists also needed to repair the image of architects, architecture and their patrons from the damage done to the reputation of the nineteenth century veneer and its deteriorated quality.

To fulfill their objectives, the Modernists advertised their new vision of utopia with treatises and manifestos that preach canonical statements of honest construction to exhibit moral life style. To the Modernists, this meant stripping off the pretentious, inauthentic, excessive manner of the Victorian culture and leaving the modest, streamline, pure form of a dynamic epoch. They proposed that this meant revealing everything, the raw nature of the materials, the process of construction and, most importantly, the conquering of function by mechanization.

Further, the Modernists supported monolithic construction. However, they understood monolithic construction as an abstract concept that became rendered in an abstract way on the surface of the wall assembly. They also
understood that to build a utopian society they needed to construct a number of veneers. In order to reflect the new dynamism and mechanization of society, this ideal appearance became an abstraction of the material definition of authenticity, all the while concealing presence of the veneer. Ironically, the Modernists believed that the veneer should be invisible or undetectable. Although their new look promoted a new style, one without the use of ornate veneering techniques, the Modernist buildings and credos were false advertising as they promoted false facades, deceptive utility and sanctimonious theories.

The Modernists took a page out of Louis XIV's book, constructing image, social status, and desire with a visual encounter of a veneer, a moral veneer, while at the same time rejecting the opulent, excessive and decorative manner of the previous periods. In order to create a moral appearance, the Modernists had to conceal the reality of their product. As a result, the veneer became a mode of explanation for construction or the art-form that concealed the unattractive industrial core-form. In the same fashion as the Gothic cathedral and the Greek temple the veneer appeared functional, which meant monolithic. In the process, the Modernists designed and constructed a virtuous version of a veneer that became the constructed appearance of taste and culture in the twentieth century.

Despite the validity of Semper's thesis with respect to the art-form of colour in ancient architecture, the Modernists saw the white view as the...
perfect promotional apparatus needed to launch a new look for a new epoch. Consequently, the Modernist campaign included a delicate surface layer of white coating to maintain continuity, the concept of truth, cleanliness, and purity. Therefore, the Modernists did not condemn Semper and his dressing theory, in fact they embraced it, but they also disguised it with a white technical lab coat. The Modernist architects promoted the white surface and attacked the excessive use of colour. The white became, for all intent and purposes, the theoretical veneer of a utopian society. Even so, their architecture was covered with colour, such as, light gray, yellow ochre, burnt sienna, and light blue. Contrary to the impression that the black and white photographs gave, the advertisements of the pure white forms were mainly false. There were only a few houses that could actually be argued as being white, Le Corbusier's 1923 Villa Besnus at Vaucresson is one of these examples.46

The story of the white wall in Modernist architecture is explored extensively in Mark Wigley's contemporary book *White Walls, Designer Dresses*. Wigley states, "Supposedly, modern architecture strips off the old clothing of the nineteenth century to show off its new body, a fit body made available by the new culture of mechanization. The modern building is naked and the white wall accentuates that nakedness by highlighting its machine-like smoothness. The white paint is meant to be the skin of the body rather than a dissimulating layer of clothing."47 To achieve this
perception of their architecture, the Modernists had to carefully craft the truthful appearance of their white disguise.

The Viennese architect Adolf Loos, following Semper's "Principle of Dressing," developed the position, "Law of Dressing," to construct an image of what was civilized in the modern world. Loos rejected the excessive nature of veneering techniques in the past and believed that a dressing must not simulate other materials - the applied layer must be expressed clearly as a dressing for the wall surface. According to Loos, the veneer needed to be exposed for what it really was, precisely an accessory, neither structure nor decoration. Loos believed that the surface dressings were to mask the structure without misrepresenting it, and hide the scaffold without disguising it in order to dissimulate the dressing in the name of truth. This was not a disregard for materials, but a mastery of materials intended to hide the construction and reduce it to an invisible prop. Loos's law kept the naked-clothed distinction within the economy of the white paint rather than within another layer positioned between the white and its prop, the layer of ornament.

In fact, Loos is notorious for criminalizing ornamentation, understanding it as a sign of uncivilized conduct. Wigley quotes from Loos's, 1908 canonical essay Ornament and Crime, as stating, "the lower the culture, the more apparent the ornament. Ornament is something that must be overcome. The Papuan and the criminal ornament their skin... But the bicycle
and the steam engine are free of ornament. The march of civilization systematically liberates object after object from ornamentation.” In the same essay, Loos observed that the removal of ornament was a process of purification: “The evolution of culture is synonymous with the removal of ornamentation from objects of daily use... We have out grown ornament... Soon the streets of the cities will glow like white walls!” In Modernist theories, decoration was repeatedly described as the clothing that should be discarded, to expose the smooth modern surface, the naked truth. This aesthetic purity viewed ornament as a question of surface hygiene. In order to reveal the Modernist vision of utopia, the surface had to be scrubbed clean.

The “naked truth” is the agenda behind the demand to purify architecture of ornament, and appears to be in direct opposition to Semper’s privileging of ornament. In fact, in the case of Loos, the opposite is true. As Wigley states, “The whitewash is the extreme condition, the test case, of Semper’s argument. Loos is not simply arguing for the abolition of ornament but for collapsing the distinction between structure and ornament into a layer of cladding, a layer between structure and ornament within which all distinctions are produced by being inscribed into the surface.” Loos was promoting the collapse of the representational facade into a thin veneer that was an abstraction of both structure and ornament. Thus, structure and ornament were inconsequential as the white paint was an abstraction of both tasks. The Modernists wanted to reform the uncivilized criminal
element of culture by cleaning up the surface, redressing it, and purifying
the appearance with a more virtuous veneer, one that only required an
irrelevant prop.

Le Corbusier, in his 1923 book *Towards a New Architecture*, presented a
very clear perception of what he believed was morally correct. He states:
“A question of morality; lack of truth is intolerable, we perish in untruth.”
and “the business of architecture is to establish emotional relationships by
means of raw materials.” This morality, could not be found in, “styles of
Louis XIV, XV, XVI and Gothic, architecture... the task of the architect is
to vitalized the surface which clothe these masses, but in such a way that
these surfaces do not become parasitical, eating up the mass.... ”
Decoration was accused of being a lie and, contrary to Semper’s view, the
mask was the disguise that hide the substance of civility in modern culture.
Civilization of the modern period was seen as the “rejection, pruning and
cleansing” of the surface while cultivating the “clear naked emergence of
the Essential.”

Wigley examines Le Corbusier’s 1925 text, *L’art de coratif d’aujourd’hui*,
that condemned ornate decorative surfaces in contemporary everyday life.
Speaking of Le Corbusier’s view of the decorative lie, Wigley states, “...a
representationally layer [was] inserted between the new reality of the modern
object that results from techniques of production and the new reality of
modern life that those techniques make possible. Misrepresenting both, it
provides historical and spatial alienation by sustaining a nostalgic fantasy in the face of modernity. These representational blemishes of the surface were a distraction to the modern eye, a disfigurement and distortion that had to be treated before architecture itself lost its place in culture.

Despite Viollet-le-Duc and the Modernist's doctrine of monolithic construction, the emergence of clear rational thought, logical reasoning of processes and the presence of only essential elements were not contained in the solidity of raw materials. The rationality of the outward appearance was expressed through the veneer and restricted to the depth of the of the surfacing, banishing decoration and covering structure with a whitewash. As Wigley states, "The truth made visible by the whitewash is not that of structural materials or construction technology but the truth of modern life. The layer of white paint exposes the 'structure' of the 'edifice' of modern culture rather than the structure of the edifice it is applied to." This places the authenticity of architecture with in the new modern power structure of society rather than the actual production of the product. Similar to the veneers at Versailles, Le Corbusier's statements of truth constructs a certain lifestyle. However, in Le Corbusier's case the white that is applied to his villas is an application of a veneer that appears rational and is fitted onto a rational twentieth century way living.

Le Corbusier was not only condemning decoration, but more importantly, the act of lying itself. It appears that he opposed the distasteful disjunction
between appearance of an object and the substance it was made out of, or more precisely the dishonesty of the veneer. However, the disjunction Le Corbusier opposed was not between the appearance of an object and its material substance, but between an object and its cultural substance. Le Corbusier disagreed with the masking of cultural life but not the masking of the body. It was acceptable to clothe the body as long as the clothes were naked, in other words, “nakedness is added and worn as a mask.”

The new construction technology was the skeletal frame for a skin, a new modern and moral skin, as seen through Viollet-le-Duc’s functional perception of the Gothic cathedral. In the case of Le Corbusier’s villas, even where the structure seems to be exposed, it is purified with a layer of paint and stucco. Even the bones require a skin, a self-erasing skin.

Wigley proclaims that Le Corbusier advocates lining buildings with a coat of white, liberating the cultivated eye from the unhygienic layer of decoration in the name of a visible truth. Wigley quotes Le Corbusier, “His home is made clean. Their are no more dirty, dark corners. Everything is shown as it is.” Le Corbusier wanted to cleanse architecture of the representational mask that Semper believed was the true essence of architecture, to create a look of modernity. That is, a look of perfected utility, function without excess and the smooth object cleansed of all representational texture.
The plucking, shaving and disinfecting of decoration from the surface left the, white, truthful, undressed skin. Indeed, the elimination of the "superfluous" for the "essential" was thought to have pried the veneer off civilization, but not necessarily off of the construction. This was thought to have revealed a new order, the visual proportion of the functional body. It was understood that the substance had finally been exposed by passing from the sensual to intellectual, from tactile to the visual, from representational to the clarifying of reality. The intention of the white was to dissolve the veneer, the superfluous, into a pure expression of material and the function performed by that material. The white was understood as the antithesis to decoration, transparent to the visual logic of function and structure, and an economy of means that could fully engage with the machine age. However, the reality of the white is that it was a veneer extraneous to production, added as a consumptive mechanism to promote an image of modernity.
White Lies

Whitewash is extremely moral. Suppose there were a decree requiring all rooms in Paris to be given a coat of whitewash. I maintain that that would be a police task of morality, the sign of great people.

- Le Corbusier, *L'art decoratif d'aujourd'hui*\(^{59}\)
White Lies

Didier Deleule, author of the essay “The Living Machine: Psychology as Organology”, addresses the modern mythology of the constructed consumer need that has contributed to the modern guise of disgust. Deleule, quoting Husserl, describes this myth as, ‘substituting idealized nature for the pre-scientific nature of sense perception.’ This statement is very similar to the goals of the Modernist architects. This myth that is promoted by both the Modernists architects and modern technology is reinforced by Deleule when he states:

what Husserl calls the ‘cloak of ideas’ or the ‘veil of symbols’ becomes, by a great trick, a self-true ‘Nature.’ In short, pure method is substituted for the living thing itself. What has made this deception so successful was that it was simultaneously a discovery (that is, a laying bare,) and a concealment (as if out of modesty, the body had somehow to be dressed in ideas): the body was stripped down to its pure, mathematical essence and, in the same operation, fitted with new clothing to hide it from indiscretions of immediate perception.

This description is similar to the Modernist architects notion that the modern veneer was both a laying bare of functional essentials and moral life.

However, the Modernist adherence to the production model of authenticity was as much a lie as the decorative veneers of the past. I believe that, to the Modernists, function was seen as the mechanism that would craft an honest appearance for their architecture. Like Le Corbusier, Sigfried Giedion, a historian during the modernist period, attacked the decoration...
of modern objects. Wigley quotes Giedion, “Now is the time to attempt once again to break away from superficial attraction and re-establish architecture as functional art.” To make architecture a functional art made it relevant to, and a part of, the industrial age, which was characterized by steam-liners, airplanes, automobiles, appliances and other machines of convenience.

However in a culture where mechanization takes command, the appearance of utility is as much a decorative art as the sensuous surfaces of the past. Some Modernists believed that the functional art of architecture is no more than a surface effect facilitated by the structure that props it up. Wigley quotes Theo Van Doesburg:

> It is my conviction ... that only the ultimate surface is decisive in architecture... the ultimate surface is in itself the result of the construction. The later expresses itself in the ultimate surface. Bad construction leads to bad surface... the finishing touch is in the finish of the surface... the development of the ultimate surface is essential... only the surface is of importance to people. Man does not live within the construction, within the architectural skeleton, but only touches architecture essentially through its ultimate surface (externally as the city scape, internally as the interior). The functional element becomes automatic, only the summarizing surface is of importance, for sensory perception as well as for psychological well-being. It has an impact on the morale of the inhabitant... Houses are like people. Their features, posture, gait, clothing, in short: their surface, is a reflection of their thinking, their inner life.
The "summarizing surface" of modern architecture emulates the straight edges and the curvaceous shells that encase, not only the mechanical workings of the machine, but also the fashionable appearance of function in the machine age. In fact, the regulated lines and smooth surfaces that are the art of utility turn out to be the very thing that arouses desires and makes function a commodity. Function is advertised as the opposite of ornament and ends up appearing more certain and essential, without actually penetrating the sensuous appearance of utility. In Modernist architecture, any uncertainty about function was covered up by the pure reputation of the "ultimate surface", the whitewash.

Ironically, the necessity of the white coating was never contended. The manufacturer's of the canons did not question its essential nature because of its hygienic reputation. As Wigley states:

Clearly, Le Corbusier’s argument has to be understood in terms of the central role of whiteness in the extended history of the concept of cleanliness. Modern architecture joins the doctor’s white coat, the white tiles of the bathroom, the white wall of the hospital, and so on. Yet the argument is not about hygiene per se. It is about a certain look of cleanliness. Or, more precisely, a cleansing of the look, a hygiene of vision itself. Whitewash purifies the eye rather than the building.  

Le Corbusier had manufactured a privileged way of looking to create a new universal architecture, in which the white surface was fundamental. He felt architects and critics who resorted to "styles" of the past, did not
behold the restraints of the surface that was inherent in the smooth Mediterranean facades of the “great periods” or the surfaces of the machines created by the engineers of the new epoch. Although he felt the appearance of these machines were fixing a new style to modern culture, Le Corbusier believed that the engineer had “eyes which do not see”⁶⁵. In other words, the engineer, along with the traditionalist architect and critics, did not possess the privileged way of looking—a way that appreciated the beauty of the veneer that encased the functional aspects of the machine age.

Whether perceived as a functional body or a discriminating disguise, the white wall determined the place of architecture in culture as it was traditionally experienced, a visual art, something that is meant to be seen. The white veneer could not be separated from the gaze that is directed at it because of this constructed seductiveness of honesty. Le Corbusier’s commentary, his “eyes which do not see,” enticed the stares of observers that wanted to have eyes that do see, they wanted to be able to see the emperor’s new clothes. Wigley believes that to the Modernists, “architecture is no longer simply a visual object with visual properties. It is actually involved in the construction of the visual before it is placed within the visual.”⁶⁶ In other words, the Modern Movement was constructed as a way of seeing the world before the style was actually realized, and a building had a certain way of looking before having a
certain look. The white wall’s visual purity and resonance was realized before it was located on any particular site.67

Granted the white wall was a new look, or an old Grecian appearance made to look new, the question is did it live up to the moral standards that was used to eliminate the decorative surface? Whitewash was really an economy of vision, rather than an economy of means, that reconfigured a sensuality of the surface and space, institutionalizing the very distinction it was meant to erase. The true intention of the whitewash had nothing to do with the honesty of the construction as its application was to space and the construction was only there for support. Wigley states:

The white surface does not simply clean a space or even give the impression of clean space. Rather it constructs a new kind of space. Or, at least, it restores the kind of space that was supposedly erased by the overly sensual decorative interiors and facades of the nineteenth century. The body of the building and the body of the observers disappear into the sensuous excesses of the decoration. To look at decoration is to be absorbed by it. Vision itself is swallowed by the sensuous surface. The white surface liberates the eye by reconstituting the idea of a body hidden behind it, recovering a sense of space that has been lost.68

This did not create a passive neutrality, the whitewash was not simply what is left behind, but it was the active mechanism of erasure. The white was the cover of the body, denying the naked function while appearing naked and functional itself. It was a surrogate of the body, of good
monolithic construction, and its concealing nature made it desirable and erotic.

The Modernists were not suggesting to do away with being civilized, nor did they advocate exchanging life in the modern city for a barbaric lifestyle in a primitive hut—far from it. They were suggesting that the old blood, and the old skin for that matter, needed to be done away with or at least the wrinkles needed to be ironed out. The *nouveaux riches* were becoming more numerous and the financial success of their industrial endeavors had begun to reveal a need to express their status as different, or even more superior, than the old Establishment. Le Corbusier, quoted by Wigley, states, “On white...walls these accretion of dead things from the past would be intolerable: they would leave a stain. Whereas the stains do not show on the medley of our damask and patterned wall papers.... If the house is all white, the outline of things stands out from it without any possibility of transgression; their color is distinct.”

The whitewash, suspended somewhere between structure and decoration, became a ground on which objects could “stand out” and made discernible their artistic or utilitarian value. As Wigley states, “The inhabitant of white architecture becomes a discriminating viewer, exercising a newly found judgment. If, following Semper, to occupy a building is to wear it, then to wear a modern building is to wear a new set of eyes.” These were eyes of discretion, focusing on the appearance of...
walls, objects, and people and distinguishing between a good and a bad veneer. The honest white layer was seen as the colour that was colourless, the decoration that was not decoration, and the veneer that was not a veneer.

This was precisely the false advertising the twentieth century capitalists needed to create a veneer of their own that expressed precisely where they got their money and their new reign of tastefulness. Contrary to previous generations of inherited fortunes, the industrialists made their money on the back of the factory worker, and yet they needed to be seen as honest human beings who were making an honest fortune. However, they also needed to maintain a position of authority over their employees, and a high status within the Establishment as the new elite. The opulent decorative surfaces of the old veneers were seen as bad taste, flaunting a privileged manner and a proclamation of superiority in the eyes of the average worker. The white wall seems to address Dickens’ pejorative attitude of the inauthentic nature of upper echelons of society.

Like the crisp white shirt that was fitted and devoid of decorative pattern, the white wall enabled the capitalist to be clean and pure in both worlds. As Le Corbusier described the white wall, “Put on it anything dishonest or in bad taste it hits you in the eye. It is rather like an x-ray of beauty. It is a court of assize in permanent session. It is the eye of truth.” However
the honesty of the wall, like the shirt, was only retained if the white remained starched and clean without wrinkles, grease smudges and tears, which were commonly obtained by coming in contact with the functional element of the machine age.

Le Corbusier used the craft of veneering in the same fashion as the cabinetmakers of the seventeenth century, as means of constructing an new image. To Le Corbusier the central issue was always the technology of the flush surface as opposed to the technology of the core. In fact, he perfected the veneer of modern functionality before perfecting functionality itself. As Vitruvius warned, the key to a good wall is a core in service of the veneer, but the modern white wall did not age well as it was only a covering.

As time past, the surface cracked, flaked and acquired a layer of dirt, deteriorating not only the surface effect, but also uncovered the white lies of the image constructed by the Modernists. “The cracks” as Wigey states, “...harbour the very uncontrollable forces whose presence is being denied.”71 The white wall can only be desirous when its complexion is clean, youthful and fit. Otherwise, its deception as a moral surface and as a visual truth of a moral life style is unveiled. This distraction, distortion and disfigurement of the surface should be subjected to the same criminal
sentence as ornament, banished as a decorative lie, or more precisely a technological lie.

In the end, Le Corbusier gave up on the exclusively white exterior surface, because of the technical control necessary to maintain a clean visual encounter. Even though the white was never really implemented as the sole surfacing method of Modern architecture, as is evident with the extensive application of other colours, the veneering of marbles, wood, metal and concrete skins and panels, it became the identifying feature of architecture that was modern. Modernist architecture became characterized as the white, flat roofed, boxes and the white itself was understood as the foundation layer or the substrate in which all other material were added.

The Modernist emphasized the characteristics of the economy of material, the minimal weight and dynamic equilibrium as virtuous principles. This has provided twentieth century architecture with some of its finest moments. Most significantly, the Modernists realized the importance of the veneer in creating their idealized version of good building. The veneer was an elaborate mechanism for concealing and preserving, if not constructing, the need for architecture. The success of the veneers deception in Modernist architecture is that it simultaneously was a discovery and concealment. Instead of abandoning external appearances
in favour of inner mechanisms, the modern veneer maintained an outward
appearance to which nothing external had been added. In the end, the
distinction created by their moralistic theories of utopia was not between
monolithic and veneering, but between good veneering and bad veneering.
Artificial Skins

All architecture is what you do to it when you look at it.

—Walt Whitman
Artificial Skins

Derrick de Kerckhove, the director of the McLuhan Program in Culture and Technology at the University of Toronto and author of the book *The Skin of Culture*, explains the modern relationship of design to our commodities when he states, “...design is technology’s public relations, glamorizing its products and sharpening its image in the marketplace.”

This is evident in Nicholson’s earlier example of the production of bread, which no longer occurs at home in the hearth, or even down the street at the corner bakery. Bread making has become a concealed, excessive and expensive technological endeavor that is a powerful global force. In Nicholson’s eyes, what is being offered is a poor substitute of bread with a glamorized plastic skin. The fact that “bread has become of secondary importance to its wrapper,” as Nicholson states, represents the emphasis that contemporary culture places on the surface treatment of commodities and the disembodiment of their original role in our lives. However, de Kerckhove believes that the broader context of design is more than containment and seduction. He states that, “design plays a metaphorical role, translating functional benefits into sensory and cognitive modalities.”

For de Kerckhove, design often echoes the specific character of technology, solidifying it in culture by corresponding to its pulse. “Being the visible, audible or textural outer shape of cultural artifacts,” de Kerckhove feels that, “design emerges as what can be called the ‘skin of culture’.”
Since the development of the craft of the cabinetmaker, the veneering of objects to transform image, this cultural pulse has been controlled by the mastering of media. With the use of media, an individual’s necessity to obtain commodities for the improvement of their psychological well-being and social status has been continuously promoted. While, for the most part, media has remained the concealed institution of power and is seen as impartial and completely neutral. In contemporary times, media has taken over architecture’s predominant role in the shaping of culture.

Television, for example, is media’s foremost mechanism of power. The capability of transgressing space and time is made possible through the use of TV. Yet the restrictive frame fixes a viewpoint of the world, a bias and deceptive rendition of reality, while appearing real and impartial. In fact, TV is not the viewers’ eye to the world, but as De Kerckhove feels, it is a window on the consumer. De Kerckhove has drawn two conclusions about television: TV relates mainly to the body, not the mind, and, if the screen has a direct impact on the nervous system and emotions, then it is the screen that is doing the information processing. These conclusions are interesting in light of the new electronic reality. We receive most of our information from machines, television and computers, which are capable of probing at the skin to stimulate our desires. Media has moved information processing from our brains to the screens in front of (rather than behind) our eyes.\(^\text{76}\) TV has become a tool for constructing consumer

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34 – Drawing for TV

installation: Overheard by Diller and Scoludio
need. Hence, image is reproduced in the material products that are made necessary to the consumer. These products have an appropriate look devised to promote image through the manipulation of the surface layer. Similar to the example of Louis XIV, the acquisition of specialized products appears democratic while reinforcing and strengthen the power of the ruling institution, in this case media. Hence, with the use of TV, media is a perfect example of the consumptive model of authenticity.

Critics blame the commercialization of culture on media. In terms of architecture, it is clear that this commercialization includes the Modernist’s period, and the Modernist construction of the consumer need for architecture. However, many theorists criticize Postmodernism as the cause of the modern guise of disgust in architecture. The architectural discourse surrounding Postmodernism is not simply the tendency of some of its participants to revitalize traditional decoration, but it is the fact that the discourse itself is a superstructure of decoration in the broader sense of contemporary culture. Similar to Ben Nicholson’s metaphor of bread, Michael Benedikt’s For an Architecture of Reality understands Postmodernism as the demise of culture. Benedikt’s disgust is aimed directly at “the superficial nature” of the theories and architecture of Postmodernists, like Robert Venturi and his 1971 book Learning from Las Vegas. Benedikt states, “The rise of Postmodernism had little to do with its proclaimed ideals, namely, the creation of a richer, more complex,
more symbolic and therefore more humane architecture than was possible on the canons of the Modern Movement. When architects create plywood arches, chromed Ionic columns, or concrete garlands, the arch is not a real arch to anyone, nor the column a real column, the garland a garland.\textsuperscript{77}

This view understands Postmodernism as the collapse of “authenticity” that is organized around the values promoted in the Modernist manifestoes.

Postmodernism is seen as a threat to the values associated with a sense of interior. The issue seems to focus on the displacement of a whole set of supposedly interior values onto the exterior surface. What was once understood, in Benedikt’s view, as a concern for material and economic substance has become a fetish obsession with the exterior surface. Benedikt believes that we appreciate an object based on the ability to comprehend the natural origin of its materials and the process that formed them. In Benedikt’s eyes, Postmodernists confuse these interior values with synthetic materials and imperceptible manufacturing processes, thus placing the judgment of an objects “realness” or “fakeness” in the nature of the veneer.\textsuperscript{78} Benedikt states, “technically speaking, a material is fake when it displays some but not all of the qualities of the material we take it to be.”\textsuperscript{79} In defense of the Modernist’s credos, he feels that if a material displays qualities that do not “belong to the real stuff,” then the designer/provider is acting in ‘bad faith’ towards the user/appreciator.\textsuperscript{80}
Despite this deception, Benedikt also realizes the extensive history of the veneer, particularly in Modern architecture, and poses three ways of good veneering without acting in bad faith. The first one, derived from the 1915 advice of Geoffrey Scott, author of Architecture of Humanism, is to use the veneer with "moderation and common sense." The second "way out," based on Modernist theories like Loos's, is to "use materials, no matter how allusive, as allusive, and to seize upon the genuinely unique properties of the material: to show the thickness of the veneer...." The third strategy, also Modernist in its conception, warns against using materials that look cheap and are unrecognizable. Benedikt believes that the authenticity of the veneer depends on framing the deception, or as he put it "making fakery honest."

Benedikt tries to justify the Modernist use of the veneer, but he passes judgment based on a short-sighted perception of the rise of Modernism. He too, is seduced by the surface without comprehending the multi-layered aspect of the veneer in culture. Benedikt understands the values that form Modernism and Postmodernism to be in direct opposition of one another and the veneer to be a commonality, yet discernibly different in each period. However, I believe Benedikt's mistake is in accepting that the Modernist's advertisements of morality and hygiene pertained to a truthful or material reality. Admittedly, this perception changed the
appearance of our environment, the way we live and even the way we view ourselves, but the ornament was not scraped off to expose an inner truth. On the contrary, the scraping exposed the truth of an outer layer, an abstraction of reality, an artificial skin.

Venturi was the first to see through the Modernists new clothing. He understands the veneer as just as much a form of media as the manifestoes. Venturi views Modernism as a billboard of function advertising and solidifying architecture's reality in culture. As partly a criticism of the Modernist lie, Venturi attempts to once again reform the veneer. This time the veneer is an advertisement for architecture, a pastiche that is added as an after thought. Venturi attempts to reinvest the veneer with ornament, but as a form of media that is a sign of architecture and as criticism of the banality of the functional facade of the Modernist.

Venturi found the large advertisements along the streets of Las Vegas appealing as they were easily consumed by drivers passing by. His concept of the decorative shed, derived from the signs and small retail establishments along Fremont street during the 1970s in Las Vegas, become his model of authenticity in an automobile paced culture. However, modern culture does not care to understand the criticism and inside wit that is attempted with Venturi's veneer. Instead his abstraction of the historical facade is understood as a bad version of history. Further,
it illustrated the incapability of contemporary methods of production to achieve the same articulation of the veneer reached with the historical hand-crafting techniques.

Nevertheless, Venturi’s thesis realizes the necessity of the veneer to architecture. Furthermore, he has identified a necessity for architecture to construct a consumer need for itself. Venturi has revealed media as the power institution of Modernism and the veneer as the mechanism of media in architecture. Despite his own version of a historically based form of media for architecture, Venturi has inspired the experimentation of the veneer and the re-evaluation of ornament in architecture. Contemporary architects, like, Herzog and DeMeuron, David Chipperfield, and Frank Gehry have done extensive exploration of the artificial skin of architecture and are developing an understanding of the veneer as a way of constructing a image.

For instance, Gehry’s most recent and highly publicized building, the Guggenheim Museum in Bilbao, Spain is an excellent example of using the veneer to promote an image for architecture. Gehry’s undulating sheet metal veneer on the museum seduces the eye with the reflection of light. This manipulation of the surface is intended to invest the cladding with visual properties that obtain a visceral reaction. In *Canadian Architect*, Gehry explains his investigation of the building’s skin. He
states, "we are burdened with the notion of decoration as a sin, right? I inherited that and so there has to be something that creates a humanistic response from a building in the way that decoration did in the 19th century... I was intrigued with the idea of movement within inert material." The transformation of inert material into a constantly changing facade is meant to effect the onlooker in the same way as TV, through the seduction of the body not the mind. Gehry’s search for a humanistic response is an attempt to make architecture an object of desire in a culture of consumable commodities.

Gehry’s experimentation with the veneer is leading to an ornament that is characteristic of the late twentieth century. In addition to the beauty of its visual qualities, the buildings veneer is easily identifiable and acts as a promotional apparatus and a form of media. Not only is Gehry’s curvaceous titanium panels temporal, but the buildings appearance is conducive to color photographic reproduction, which makes it desirable to be displayed all over the world. As Gehry states, "The payoff in Bilbao is that they're paying off the building in public relations. The amount of press the building has generated would have cost millions of dollars." In other words, what Gehry sells his client is an image, a Frank Gehry original using the Gehry metal veneer.
Although not every architect is a Gehry or every building a Guggenheim, it is important to realize that media is the vehicle of power in contemporary culture, the determinator of moral correctness and authenticity. Peter Eisenman, contemporary architect and theorist, states, “contemporary media undermine the essence and aura not only of the original, but of the very nature of reality. Media environments such as advertising and synthetic realities such as Disney World have become so potent that they might be said to form a new reality. Whereas architecture formerly served as a baseline for reality — bricks and mortar, house and home, structure and foundation were metaphors that anchor our reality,”86

This new reality attempts to dissolve the material basis into a thin transparent coating of gloss that is positioned in between image and material nature. In contemporary culture, the monolithic substrate is dissolving into electronic currents leaving the image as the definer of authenticity. Therefore, the veneer remains as an transparent skin in which image is projected.

Contemporary architects are attempting to address Moneo’s question of reality in the veneer facade system through the dissolving of the monolithic static nature of buildings. Eisenman acknowledges that architecture can not entirely dissolve the substrate, but an alternative can be provided. He states, “displacement of the static environment is not merely an electronic one-liner but, rather, an interpretation in which the
environment is problematized, in which the event comes between sign and object. This reverses the traditional Modernist notion of solid/void spatial relationships where the veneer is the tectonic clothing that allows for the masses to appear monolithic. Instead, the answer to the reality of the veneer facade system is the tectonics of the thin transparent coating of gloss. This has become the assembly of opaque, translucent, and transparent skins that manipulate the appearance and static condition of materials.

The tectonics of veneering requires a shift in the understanding in authenticity and the way that architecture is designed. If “all architecture is what you do to it when you look at it,” then the visual effect is important to the articulation and consumption of architecture by culture. With the temporal nature of mechanisms, like TV, contemporary architecture can no longer be bound by static condition of space and place. Evident in Gehry’s skin experimentation, the visual effect created by the tectonics of the veneer transforms materials static realities into an ever changing facade. Rather than being placed somewhere between structure and ornament, the veneer is position between image and object, body and function, interior and exterior, and appearance and reality. The relevance of architecture is achieved through consumption of the veneer and its ability to construct a consumer need that pertains to the pulse of culture.
Chapter 3

Skin Deep

Tectonic Veneering

The veneer functions as a mediator between a cultural reality and the material basis of the built environment. The design portion of this study is a series of investigations that try to invest our environment with qualities that are inherent in the contemporary power mechanisms of media. Through the transformation of a material’s inherent qualities into a visual effect, veneering makes possible the construction of an image for architecture. These studies attempt to realize that the veneer is architecture’s form of media, the component that markets and sells architecture to culture.
The first series of study models deal with the design of the veneer at a formal level. These ideas imply a shift of our design intuition from solid/void space articulation towards a focus on the tectonics of the veneer. This strategy is an attempt to shift away from a series of masses that express a static environment to the development of a formal articulation based on ideas inherent in veneering techniques, such as application, folding, intertwining, wrapping, layering, capping and skinning. The development of a formal way of thinking of the veneer places the graphic representation of image as the central component to the appearance of the building. These models attempt to provide the impetus for an expression of the veneer that appears rid
architecture of its static body
leaving only the seductive
qualities of its skin.
Skin Experiments

The second series of models take the formal tectonics of the previous study and focus on the assembling techniques of materials. This investigation is an experimentation of the visual qualities created by the manipulation of materials and the assembly of the building’s skin. Based on the identification of similarities in the formal moves observed in the last set of models, three categories were derived as a means of articulating different veneering techniques: Appliqué, Veneering the Veneer, and Veneer as Substrate. These models explore how the veneer can be invested with the temporal and seductive qualities inherent in the mechanisms of media. The intention of these models are to experiment with different ways that a building can change appearances through the varying, reflecting and filtering light.
Skin Experiments 84

Appliqué

The two models that are categorized as the technique of Appliqué illustrate a clear distinction between the cladding, and the frame that the cladding is applied. In these examples, the skin is applied as an independent wrapper that manipulates the translucent/transparent qualities of the surface. The first one achieves this with aluminum screens that reflect a glittering light, while allowing for a more ambient light to penetrate through. These shades could be controlled by light sensors, giving the building a different appearance depending on the time of day and brightness of light.

The second model uses frosted glass as a cladding that is peeled away to reveal the interior activities. The frosting technique acts as a veil; it both reveals a ghostly image behind while concealing the image's identity.
Veneering the Veneer

The second category, veneering the veneer, treats materials as a series of masks that are laminated one over another. In the first case, the transparent qualities of glass are masked by a thin piece of film that is not restricted to the window. The opening is only discernable by the light that penetrates the image and that is projected onto the interior surfaces. The second model becomes a light source, first through reflecting of artificial light off of the copper veneer, then by masking the copper and the lights with frosted glass.
Veneer as Substrate

Veneer as Substrate, the last category, places the aesthetic material of the veneer in the place where the substrate is normally found. The first example is similar to the idea of plywood, only the interior layers become visible by varying the shape and size of the window openings that correspond to the different plies. What is normally the substrate is seen through the opening in the cladding on either side of the wall. The perception of the opening is also manipulated depending on if the window is back lit. The second model uses two pieces of glass to support the veneer, the pebbles. In this case, the glass is a transparent substrate. This exo-skeletal idea allows the pebbles to become a filter, varying light patterns and intensities.
VENEER AS SUBSTRATE

HORIZONTAL SECTION NTS

VENEER AS SUBSTRATE

VERTICAL SECTION NTS

Skin Experiments 89
Design Exchange

The proceeding general investigation of the veneer was necessary to explore a number of ideas that were not connected to a specific building typology. However, it is also important to realize these ideas in a specific context. This is the intent of the last part of the design investigation. Although the crafting of the veneer should be considered in the design of all building typologies, the specific implementation of these concepts illustrates the veneer's purpose as the product of architecture. The use of a Design Exchange as a model employs the veneer at a multitude of levels.

The intention of a Design Exchange is to locate architecture in the market place. It is a showroom that sells the veneer of architecture in both the sense of image and object and through both the design and contents of the building. The function of a Design Exchange is to sell the image of architecture through the use of media, such as books, exhibitions, and slides and through the design of the building's veneer. Similar to a computer, the Design Exchange is programmed with elements of entertainment, information, images, business facilities, retail, and opportunities for social interaction. The sole intent of the building is publicize the profession and to create a catalogue of high design examples.

As the function of the building advertises a certain image of architecture graphically, the building itself further markets this image. The veneer sells architecture in two ways. First, through the construction of an image that is in addition to function. It advertises to the public that architecture is more than the application of a building system. It gives the appearance of specialty and creates a visible, tangible difference from the pure necessity of building, refining a product that is unmistakably architectural. Secondly, the veneer markets architecture. Veneering is the crafting of an object of desire through its visual appeal. I have focused on the crafting of the veneer in order to produce a beautiful visual effect that is easily consumed by the pedestrian traffic.
Site

The site is a high profile pedestrian street, Stephen Avenue Mall, in downtown Calgary. The Design Exchange is located between the turn of the century Bank of Nova Scotia, known as the Banke, on the east side, and a small retail establishment on the west side. The site is a long narrow gap in the fabric of the historical retail strip of Stephen Avenue and measures 9m by 143m. The east side of the site, corresponding to the Banke, is a red brick three storey high wall. The west side is bound by a two storey wood ship-lap sided wall that ends in the middle of the site and a one storey gray stucco wall that continues to the alley.

Program

The program is divided into two buildings with a courtyard between them and a connection underground. The front building contains the retail
aspects of the program, such as the café and magazine stand on the main level, and the bookstore on the second level.

The second building, located at the back of the site, is accessed through a passage that enters into a courtyard. The courtyard, with a water element as a focus, allows for entry to both levels of retail space and the lobby of the exhibition space. The second level of the rear building contains office space with a small balcony overlooking the courtyard. The third level is a two-storey conference room with a clear-storey at the back and a larger balcony also overlooking the courtyard. The exhibition space is located under ground level and is accessible from both buildings serving as the inside connection between the front and back buildings. In the gallery, there are three rotational exhibition spaces and a permanent slide exhibition space. Also located on this level is the kitchen,
which allows for service of the cafe with dumb-waiters and convenient service for exhibition openings.

Veneering Techniques

The Design Exchange consists of a series of continuous membranes that would be coded with different materials. For example, the Stephen Avenue facade consists of a series of layers defining a tectonic relationships between the skins. The white material is an interior wrapper that defines the cafe on the ground level and the bookstore on the second, while underground it divides the exhibition space from the washrooms. This white veneer reappears above ground in the rear building and becomes an exterior wrapper. The wood element in the front building acts a cap creating a parapet to the front facade, while the glazing is the exterior wrapper with the applied aluminum screens.
Veneering is also explored in a more conceptual and metaphorical manner with the slide screen and water element. The projection screen is a frosted piece of glass that allows the projected images to be viewed from both sides while the onlooker circulates through the galleries. The supports of the screen appear to penetrate through the floor to become the stone bench in the courtyard. The back of the bench contains nozzles, which spray water over the skylight of the exhibition space, manipulating the light qualities below while the light from the projection screen would shine onto the water above. The fountain consists of a slight indentation in the ground plane which contains the water until the water level reaches grade and the fountain drains and refills. Thus, the water is constantly surfacing and resurfacing the ground. In addition, the
slide exhibition is a surface projection or image of the material veneer that surfaces architecture. Therefore the combination of the slides and the water enable for the immaterial image to materializes and the material veneer to become immaterial.
Conclusion
Conclusion

This examination of Veneer Culture does not attempt to solve or justify the dilemma of the materialistic and commercialized nature of contemporary North American culture. Instead, the intent is to comprehend the under-riding and consolidating factors that contribute to the development of culture. It is a preliminary investigation that purposes a small insight into or different perspective of the valued aspect of production and consumption in the past, and relating this to contemporary culture.

Although the veneer is technically a method of production, the appearance that is the result of veneering is a disguise or consumptive form of production that refines and controls a surface appearance. The identification of veneering as a significant factor to the perception of authenticity allows for a new interpretation of Modernism, one that places its origin in the constructed consumer image, rather than the accelerated means of production inherent of the Industrial Revolution. The promotion of an individual's image based on the acquiring of material objects is fundamentally a modern idea. To be modern is to own the latest model of automobile, the newest form of telecommunications, and the up to date fashion of clothing.

Influenced by the ideas of modernity, contemporary culture finds substance in the surface appearance of objects, the thin outer gloss or varnish of the material veneer and simultaneously the projection of image. The material veneer consolidates image and in this sense the two can not be separated. In fact, one
dissolves into another, both becoming material and immaterial at the same time. Conceptually, the notion of Veneer Culture is the dissolving of nature and artificiality, truth and mythology, appearance and reality, into a transparent coating that is at once perceptible physically and metaphysically.

This eliminates or at least conceals the substrate that was once thought to be the substantive element in the production of culture. The crafting of an object, once done by hand, is concealed through elaborate global forces of production and consumption, the bodily experience of nature has become a controlled visual effect and the value of a commodity is its ability to procure image, rebuilding a reality that seems, better, more tolerable, precise and stylish.

In the end, the substrate is not important to reality. The substrate is not meant to be seen or even detected. Image is the focus of cultural significance and the perception of authenticity is based on the surface appearance. The disappearance or concealment of the substrate does not prevent commodities from functioning, phenomenological experiences from occurring, or objects from being crafted, but it is the surface appearance, the mask, that invest these events and objects with cultural meaning. The mythology or the constructed consumer need makes sense out of these elements, determining a civilized manner. The construction of the veneer is the building of culture.
End Notes

8. Ibid., p.497.
9. Ibid., p.497.
10. Ibid., p.497
11. Ibid., p.497
13. Ibid., p.46.
17. Ibid., p.56
18. Ibid., p.52
26. Ibid., pp. 2-3.
27. Ibid., p. 2.
28. Ibid., p. 6.
30. Viollet le Duc, cited in
31. Ibid., p.3.
32. Ibid., p. 3.
35. Ibid., p. 249.
36. Ibid., p. 257.
37. Ibid., p. 39.
38. Ibid., p. 39
39. Ibid., p. 25.
45. Ibid., pp. 245 – 246.
47. Ibid., p. xviii.
48. Ibid., pp. 9 – 10.
49. Ibid., p. 10.
50 Ibid., p 15.
52 Ibid., p. 37.
53 Ibid., p.138.
55 Ibid., p. 21.
56 Ibid., p.21.
57 Ibid., p.3.
58 Ibid., p.3.
61 Ibid., p. 203.
63 Ibid., p. 112.
64 Ibid., p. 5.
67 Ibid., p. 13.
68 Ibid., p. 7.
69 Ibid., p. 8.
70 Ibid., p. 23.
71 Ibid., p. 83.
74 Ibid., p. 154.
75 Ibid., p 154.
76 Ibid., p. 38.
78 Ibid., p. 44.
79 Ibid., p. 46.
80 Ibid., p. 46.
81 Ibid., p. 46.
82 Ibid., p. 48.
83 Ibid., p. 48.
85 Ibid., p. 58.
87 Ibid., p. 424.
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Bibliography


