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Classicism: Seen through contemporary furniture

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CLASSICISM: SEEN THROUGH CONTEMPORARY FURNITURE

by

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The purpose of my thesis is to develop a body of furniture that explores the relationship between architecture and furniture. This exploration focuses on issues such as form, space, proportion, color and texture. Within the exploration process, the visual aspects of classicism in architecture are investigated. The ideas behind the works of selected contemporary architects are examined and used as a reference to generate ideas for my thesis work.

At the start of my thesis, I realized that there was confusion as to “what is classicism?”. Whether I was talking to a faculty member or a student, I encountered an uncertainty as to what classicism entailed. This ongoing question in my mind inhibited my preliminary designs. I started to question my own definition of classicism and classical forms and turned to contemporary architecture for current interpretations of classicism.

Since the beginning of my interest in design, I have been intrigued by the use of classical forms and the way in which they can be manipulated to certain extremes, but still be based on traditional values of classicism. Exploring these issues through research and in the development of my furniture has had a significant influence on me as a designer.

The first part of this thesis report is an overview as to what classicism is. It’s intended to provide the reader some historical background and to show a reference for my work.
WHAT IS CLASSICISM?

A necessary first step is to define "classicism". The Dictionary of Architecture defines the term as "A revival of or return to the principles of Greek or (more often) Roman art and architecture."1 "The term 'classicism' is generally reserved for the styles more consciously indebted to Greece and Rome."2

1. What are the principles of Greek and Roman Architecture?

Greek Architecture essentially inspired the earliest developments of classicism. The Greek ambition was to formulate valid rules of form and proportion. They wanted to develop buildings that were human in scale, yet directed their structures to suit their gods. The Greeks sense of proportion is in their efforts to achieve ideal forms through the use of geometry; geometry in terms of mathematics that deal with the measurements and relationship to points, lines, angles and surfaces.

Greek architecture, along with Roman architecture, is described also in terms of the platform, column and entablature (fig. 1). The combination and relationship of these three elements is called an order. An order is also broken down into a base, shaft, capitol, architrave, frieze and pediment.

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2 Ibid.
The two orders developed by the Greeks are differentiated by their details. The earliest orders to be formulated were the Doric and Ionic orders. The Corinthian order was later developed by the Romans. The most apparent differences among these three orders are in the columns. The column in the Doric order is severely plain and has a massive appearance. The capitol is marked with one or several horizontal lines that create a transition from the lower column. The Ionic order has columns that are slender and much more decorative. The columns have a horizontal capitol that end with a scroll-like spiral. The third order, (Corinthian) produced by the Romans, consists of a refined column developed from the Doric and Ionic orders. The capitol is shaped like an inverted bell and is decorated with a design of stylized acanthus leaves. Roman architecture uses the column as decoration and was not essential to the structural demands of the building, versus the Greeks who used the column as a structural support.

The Romans were preoccupied with symmetry and proportion. While horizontal and vertical lines played important roles in the temples constructed by the Romans, they also relied heavily on rounded forms such as vaults, arches and domes (Fig. 2). The interplay of the structures created an appearance of molded forms.

2. Evolution of Classicism

The Architecture of the Greeks and Romans has been turned to again and again by architects and designers as a design reference. In the writings by Plutarch, he remarked that those buildings "were created in a short time. Each in its fineness was even then at once age old; but in
the freshness of its vigour it is, even to the present day, recent and newly wrought."

While there are traces of the Greek and Roman tradition in most architecture, several styles more clearly rely on that tradition. The Renaissance movement, Palladianism, Neo-Classicism and Neo-Rationalism are among those periods that reflect on classicism.

Figure 1. Iktinos and Kallikrates. The Parthenon, 448 - 432 B.C. (Reprinted from Horst de la Croix and R.G. Tansey, Art Through the Ages, New York, 1986, p.151).

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HISTORY OF CLASSICISM - SEEN THROUGH ARCHITECTURE

It is difficult to pinpoint the exact beginning and ending of architectural movements. This difficulty results, in part, from the fact that movements throughout history changed at a slow rate and developed from each other; investigation and research from previous periods prompted new ideas and explorations in design. I have selected the Renaissance, Palladianism, Neo-Classicism and Neo-Rationalism because they represent the movements that have influenced me as a designer.
Renaissance

The Renaissance period dates from around the 15th century to the early 16th century. It involved the restoration of the ancient Roman standards of proportion, geometry and the use of detailing common to Roman architecture; detailing referring to the use of the Corinthian order and rounded arches. In today's terms, Renaissance refers to Italian art and architecture and was adopted by the French and Germans.

**Palazzo Medici-Riccardi** (fig. 3) by Michelozzo di Bartolommeo, exemplifies some of the principles seen in Renaissance architecture. The massive structure is divided into stories of decreasing height and unbroken horizontals. This division gives this building a clear sense of proportion. The classical cornice, at the roofs edge, is carried throughout the entire perimeter of the structure. The rounded arches over the doors and windows are further examples of the use of Roman detail.

During the early Renaissance, architects such as Alberti carried the Roman love of proportion one step further. The concept, "harmonic proportion," was developed because it was believed to reflect the "harmony of the universe."

"Harmonic proportion" is defined as follows: "A system of proportions relating architecture to music. The Ancients discovered that if two cords are twanged, the difference in pitch will be one octave if the shorter is half the length of the longer, a fifth if one is two thirds of the other, and a fourth if the ratio is 3:4. Architects of this time hypothesized that rooms/spaces or entire buildings that followed these ratios 1:2, 2:3, 3:4,
would be harmonious," \(^4\) and therefore constructed structures using this method as a guideline.

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Palladianism

Palladianism was derived from the architecture and publications of Andrea Palladio. Palladio was considered a specialist of this period because of his extensive research of architecture, ancient literature on architecture, engineering and topography. One of the first modern day interpretations was by Inigo Jones who examined Roman ruins in Vicenza and popularized Palladianism in England, Northern Europe, and Germany. This period was mainly concerned with the use of

elements as decoration. The Banqueting House at Whitehall, London (1619-1922) (fig. 4), by Inigo Jones, shows a distinct use of classical idiom. His use of columns in the center of the facade and pilasters near the end of the structure demonstrates a clear relationship between Palladianism and both Greek and Roman architecture. The introduction of the balustrade roof pushed traditional notions of classicism and enforced the idea of a horizontal emphasis.

**Neo-Classicism**

Some Historians believe that Palladianism was the first phase of the Neo-Classical movement of the late 18th century. Neo-Classicism in architecture has been described "as a reflection of a general desire for established principles based on laws of nature and reason."\(^5\) Neo-Classicism was a response against the extremes of the late Baroque and Rococo periods. This movement in architecture "embodied the noble simplicity and calm grandeur"\(^6\) of Greek and Roman architecture. Architecture of this time, has been considered to be at its best in its simplest and most fundamental form.

James Stuart and others revived the severity of the Greek order by their investigation into Doric temples in Sicily. Their developments led to the creation of architecture that dealt with pure geometric forms; the pyramid, the cube, cylinder and sphere. Some of the designs by Friedrich Gilly, buildings by Sir John Sloane in England, Benjamin Latrobe in the United States and Adrian Dmitrievich in Russia are examples of Neo-Classicist designs.


\(^6\) Ibid.
Neo-Classical structures are rather severe and solid. An example of this is the building Monticello by Thomas Jefferson (fig. 5). His classical detailing is somewhat restrained. The columns are used structurally rather than just as ornaments; they support entablatures and are not merely applied to the walls. Unbroken facades emphasize the volumetric clarity of the building both internally and externally.

In the early 19th century, Neo-Classical ideas and methods were discarded because of their severity. Styles more picturesque in composition and richer in ornamentation prevailed. From this point on, styles became luxurious and dramatic; they attempted to “express
visually a high intellectual ideal."⁷ As a form of revival, classical architecture survived both in Europe and in the United States throughout the 19th century. Even today, Greek, Roman, and Renaissance architecture have maintained a high impact on contemporary architecture.

**Neo-Rationalism**

Neo-Rationalism is a contemporary style that deals with an ever changing interpretation of classicism. It began as a counter response to the Modernist movement of the 1960’s. The Modernist movement was prompted by the Industrial Revolution, whose advancements provoked massive structural forms achieved by the use of steel frames and reinforced concrete construction. Modernism was marked by dense, plastic, sculptural forms that dealt with a complex treatment of the entire building. Modernism had been concerned with breaking away from the movements of the past.

Leon Krier described the architecture of the Modernist movement as "monstrous, labyrinthic typologies which have now become symbols of industrialized countries... Modern architects have always shown strong tendencies to reduce any public programme to a single form, housed under a single roof; and that simply because the modern architect is not asked to think about the social programme, only to give it form."⁸

Neo-Rationalism is a reaction to modern architecture and is

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motivated by historical structures of the past. Greek and Roman structures were used as models and references to help clarify and solve present day problems in architecture. The motivating theory was that "the proper appreciation of historical heritage will filter the experience of the past to the advantage of planning for the future." 

Contemporary architects such as Rob Krier, Leon Krier, Aldo Rossi, Perkins & Will, Jones and Kirkland, and Michael Graves are just a few of those who have contributed to the development of Neo-Rationalism.

Neo-Rationalism departed from previous classical movements by "Recognizing the city as the fundamental architectural reference" Proposed techniques of typology "describes the site and the physical structure of the settlements upon which the city is founded." There is this concern for creating a miniature city/environment within the site (fig. 6&7). Rob Krier, a prominent Neo-Rationalist Architect, noted that:

"The city as a whole - has been forgotten in the 20th century urban planning. Our new cities consist of collections of individual buildings - five thousand years of urban history show that the complex structures of streets and squares are necessary as communication zones and centres of identity. The modern city needs the traditional concepts of urban planning as well" 

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11 Ibid.


The work of Jones & Kirkland (fig. 8) illustrates characteristics known to the Neo-Rationalists. "Intentionally hierarchic and monumental" buildings along with the use of simple classical form and proportion are landmarks of this movement. The Neo-Rationalist pushed for their structures to maintain a visual sense of balance and not pure symmetry known to the traditional classicist.

Figure 8. Jones & Kirkland, Mississauga City Hall, 1982-86. (Reprinted from Dr. A.C. Papakis, Building & Rational Architecture, New York: The Overlook Press, 1976, p. 75).

IMPACT OF CLASSICISM ON MY DESIGNS

My work focuses on contemporary furniture which has a distinct relationship to the past and present. The pieces of furniture that I have created are intended to be viewed as one-of-a-kind furniture pieces and are directed towards gallery exhibits. The furniture is designed to stir one's imagination and create a focal point in an architectural space.

The purpose of this body of work has been to create furniture pieces that would express and embody my exploration and interpretation of classicism. Researching work by contemporary architects, especially the Neo-Rationalist movement, has been a focal point for my thesis work. While it is impossible to incorporate all of the ideas behind a movement, I have found that having a reference to a particular movement or style has been motivating and successful.

Neo-Rationalism is based on this contemporary idea of a miniature city/environment within a site. This stirred my imagination. Of course, creating a city within a single piece of furniture is impossible. I found myself instead dissecting classical architectural forms. I decided to look at each piece of furniture as a section of a city; a building, a part of an individual structure or even conceptually view these forms as scaled down architectural models. Figures 6-8, demonstrates what the Neo-Rationalists were trying to convey: the sense of an architectural space through the use of simple classical forms. Each building, structure or form creates this space which is architecturally active and is composed of small and large buildings according to their importance.
The genesis of the Entertainment Center (fig. 9) was to create an architectural space. I created three-dimensional objects that allowed me to mold and shape forms in a positive and negative fashion. At the same time, it creates an implied space in a room. My exploration of the relationship between different structures and classical forms led me to incorporate a column-like form and a grid to capture the space in a room. The painting on the wall reinforces this space and by pulling the unit away from the wall at an angle, exaggerated this whole idea of an implied architectural space.

Figure 9. Mark J. Spadafora, Entertainment Center. (19.5'w x 72'1 x 85'h) 1990.
I felt that in order to succeed in further expanding my ideas, I needed to address the use of scale. In the Parthenon (fig. 1) and other classical buildings, scale plays a major part in the structure. I sought to replicate in the Entertainment Center, the classical architect’s use of scale by using a massive column-like form, as did the ancient Greeks. This piece also incorporates classical characteristics in the use of geometric forms and the use of a three part composition (base, column, and capitol).

The use of the grid form added tremendously to the development of my thesis. The grid implies a mathematical system and illustrates in a conceptual manner the classicist’s adherence to a mathematical sense of proportion. Looking at a Greek structure, Roman temple or at a plan view of the Music Center by Perkins & Will (fig. 10), it is evident that the structures are oriented by some mathematical system. I continually use my own interpretation of this system for placement of forms and details. It allows me to organize my designs and to give them a sense of proportion.

Another issue that intrigued me was this idea of asymmetry brought about by the Neo-Rationalists. My past work had been so symmetrical that I felt I needed to break new ground for future designs. Even though one elevation might be symmetrical, my overall attempt was to take the Entertainment Center and the following furniture pieces towards asymmetry while maintaining a visual balance in each piece as a whole.

The choice of materials for the Entertainment Center was directed towards the use of natural wood. The reason is that Greek and Roman
architecture strived for a true-to-life appearance of materials. Limestone and marble, for example, were used in the ancient temples in their natural state. So I decided to maintain that idea and use curly sycamore veneer on the column and fiddleback mahogany on the base and pyramidal top. The use of black aniline dye and black lacquer on the red oak grid reinforces my concept of the grid and its mathematical implication. This creates a necessary contrast in materials.
and balances the piece as a whole. The use of red oak on the grid works well because the wood is considerably open grained and allows it to maintain its textural quality. The dye is somewhat transparent and allows the grid to have the same visual warmth as the column.

The column in this piece is identical on the back side and lighting was incorporated in the interior of the column. Sandblasted glass on either side of the column is used to diffuse the light. Lights were used in this piece to help generate the concept that furniture, like architecture, has an interaction with the user; it gives the Entertainment Center its own life.

**HAL Table**

The **Hall Table** (fig. 11) was the second piece that I constructed. My desire to maintain the same concepts developed with the Entertainment Center was of utmost importance in my design of this piece. When doing the sketches for this piece, I focused on maintaining the grid form for unity while taking a different approach to classical form.

Work by Rob Krier generated some of the ideas behind this **Hall Table**. In the drawing of the Community Centre in Brunn am Geburige (fig. 12), I studied not only his elevations but also his plan views. His use of a curved facade is a contemporary classical characteristic. I began doing sketches in plan view and developed some very intriguing forms.

This **Hall Table** has two different scales. The first scale is directed towards the user: How tall should it be in order to be functional? How much space should it occupy in a room? I decided upon the overall dimensions of 12.5”w x 16.5”l x 37.5”h, to be an appropriate size for this table.
The second scale consideration was conceptually viewing these forms as scaled down architectural models. The curved side has a facade appearance; the grid structure represents the mathematical foundation of the piece. It took me a considerable amount of time to
find a way to combine the curved side and grid structure in both a visually pleasing and structurally sound manner. As can be seen from the attached picture of the Hall Table, this issue was resolved by creating a tapered curved form with a vertical emphasis. This curved form is divided up into eight tapered sections to give the facade a fluting effect (a detail used on a classical column). I used curly maple to continue the ideas developed in the Entertainment Center of using natural materials.
Additionally, I wanted to experiment with the grid by forming a positive cube versus a negative cube. In the Entertainment Center, the grid was used as a "negative" shape in the sense that only the outlines of the cubes were created. By using aluminum to emphasize the grid, its reflective quality allowed me to play on the use of light. Each square was rubbed with a Scotch-Brite pad in different directions allowing the surfaces to pick up different intensities of light emphasizing the checkered/grid pattern.

I consider the combination of the grid and curved form to be successful. The two forms created a sense of "environment" that is also evident in the Entertainment Center. This concept is reinforced by the placement of a "negative" square at the base of the curved form. Conceptually, this square is intended to suggest that structure resides below the curved side. The viewer is meant to conceptually extrapolate the single square to a whole row of columns much in the classicist tradition of embodying a row of columns within one structure.

The 3/8" thick glass is also an essential part of this Hall Table. The glass complements the curved form and the aluminum grid structure. One side of the glass plays off the curve of the wood form and the other three sides play off the straight sides of the grid form. The glass serves as an experimentation in asymmetry. I extended the glass beyond the grid form on one end and pulled the glass in on the other side.

COFFEE TABLE

The Coffee Table (fig. 13) was designed to relate to the classicist's use of both a vertical and horizontal emphasis. Banquet House (fig. 4)
by Indigo Jones for example, uses the columns, pilasters and windows to stress the verticality of his building. The balustrade and dental cornice, on the other hand, enforce the horizontal character of this structure.

The Coffee Table has reference to the columns of Ancient Greek and Roman structures. The use of three solid ash forms are meant to be conceptually viewed as three tapered columns. I found it necessary to space them in order to reinforce the idea of an architectural space. The two cut outs at the bottom of the ash forms assisted with this thought. The ash forms contributed to the verticality of this piece, whereas the grid created the necessary horizontal emphasis.

I further explored the possible uses of the grid in this piece. The grid was created by using a bleached out maple veneer. The lines in the grid are drawn with a Rapidigraph Pen and then sealed with a high gloss lacquer.

I found that studying site plans, for example work by Perkins & Will, Music Center (fig. 10), had opened new avenues for my thesis work. The glass in the Coffee Table plays on the idea of the interaction between a structure and the ground on which it stands. This same idea was used in Perkins & Will's Music Center. If you look at their site plan, you can see that the actual structure and surrounding grid patterns interact with the topography.
Figure 13. Mark J. Spadafora. Coffee Table. (15"w x 49"l x 17.5"h) 1991.

VALET CHAIR

Continuing to observe and research classicism in architecture, I found myself studying site plans by the Neo-Rationalists. Instead of viewing them as a whole, I concentrated on the individual classical structures.
In both the Pantheon (fig. 2) and work by Jones & Kirkland (fig. 8), the rotunda plays an important role. In the development of the plans for the Valet Chair, I began by sketching plan views of rotundas and came up with some intriguing shapes. The forms developed, in a sense, were extensions that I created from sketching plan views of rotundas.

It was very important to maintain simple classical form and a sense of solid structure. I used several new and different techniques on this
piece that were intended to play on the notion of a solid structure without detracting from the idea of a simple classical form. For example, the use of copper on this piece enforces the concept of a solid structure. I used square cut outs to suggest a system of structure or implied colonnade. The seat was designed to reinforce the plan view idea and obviously serve as a functional seat.

In the post, the use of light and dark veneers give the representation of the grid. The post and the seat are veneered out of curly sycamore and fiddleback mahogany. These materials are effective in dealing with contrast and also work well in a visual textural sense.

The scale of the Valet Chair expresses the same thoughts as my previous work. I focused on maintaining the idea of a scaled down architectural model. I wanted the Valet Chair (fig. 14) to be viewed as a chair, but also wanted it to suggest a classical reference.
CONCLUSION

My thesis has been devoted to the research and development of furniture that has strong ties with classical architecture. I have investigated the use of classicism throughout architectural history and have used this information to help create a body of furniture. Architecture, along with furniture, has constantly evolved - its development not only reflects changes in society's attitudes, but also helps to change society.

I have found that architecture and furniture have a strong relationship with one another, making it possible to bring the richness of our architectural heritage into galleries and homes. The development of new forms, inspired by architecture, has opened a realm of possibilities in furniture design for me. Creating furniture that embodies an architectural sense of proportion and character is truly a challenge.

This thesis has given me a better understanding of what is involved in design. I found my earlier work, undergraduate school, to be lacking conceptually, and to be oriented more towards craftsmanship. This thesis exploration has helped me find a personal, meaningful direction in the field of design.

I have found that researching and observing classical architecture has illuminated the strong correlations between craftsmanship, design organization, and attention to detail. These relationships did not become apparent until the latter part of my thesis investigation.

I feel that this thesis has successfully broken new ground in the studio-
art furniture world. I plan to continue to build on what I have learned from my thesis investigation. I hope that the reinterpretation and use of classical concepts will allow my work to mature and develop.
Ching, Francis D. K. Architecture: Form, Space & Order. New York: Van


