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The Necessity of Artifice

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For me, the decision to return to graduate school was an easy one to make; the challenging part was finding a school which offered the appropriate balance of academics, design and craft. I literally searched for two years before locating the School for American Crafts. The two and one half years spent there will always remain one of the most valuable and rewarding experiences of my life.

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I.

I entered Graduate School after spending eight years as a professional interior designer. During that time, I had learned to think in a very "efficient" manner and developed a number of biases along the way. Upon arriving at Rochester Institute of Technology, I resolved to remove many of those preconceptions, or at least question them to confirm their validity.

I set out to explore the historical inspirations that held sway with me, to develop my intuitive process (as opposed to the more analytical thought process required when "designing") and to explore the impact of ornament and the expression of structural clarity on and in my work. Structural expression and ornamentation were two specific issues which, although at the time unrecognized, consistently influenced my design decisions. The specific naming of the subject of structure and ornamentation was originally presented as a set of opposites in a Graduate Forum² exercise.

At the time, I chose "Structure vs. Ornamentation" because it appealed to my ongoing fascination with moments in design and architectural history where the two did in fact appear to be opposed. I had grown to suspect that structural expression was a form of ornamentation in the sense that it provides visual delight or interest to the viewer.

It is appropriate at this time to offer my working definitions on structure and ornamentation; ornament being embellishment which provides visual delight and adds to the aesthetic appreciation or understanding; structure

being a system of support; a rationale for "being"; the spirit or concept of a piece. A work of art "...is structured then when the attributes of its elements are perceived to be relational".³

I had for some time been consumed by the task of defining for myself (as well as for my colleagues and committee members) the difference between ornament and decoration. As the body of work emerged and my verbal gymnastics became more convoluted, the importance of that task became lessened. I do however feel a distinction should be made between the two; that decoration can be discussed in terms of surface treatment, applied afterward, frivolous, and not adding to the aesthetic whole. Ornament, on the other hand, has integrity, is integral to the visual "function" of the work (that is, to the viewer's appreciation and/or understanding), is typically three dimensional and cannot be removed from the work without consequence. I feel it is necessary to form, as William Charles Libby states, "...relationship upon relationship until fitness and equilibrium are joined, and until an addition or subtraction (Decoration) would be superfluous or ruinous"⁴

Initially I set out to develop a body of work which would investigate what I perceived at the time as "extremes of pure ornament and pure structure".⁵ I expected that by looking to the ends of a perceived spectrum, that which inhabited the middle ground between the two would ultimately be clearer. It was my intention to culminate the investigation with works which would allow me to make informed decisions about future works. What I achieved is discussed further in Chapter III.

II.

I have, for many years, been repeatedly drawn to periods in history which, for lack of a better generalization, have sought to balance ornamental and decorative impulses with a clear expression of structural considerations.

Periods such as Art Deco with its geometricized organicism, the American Arts & Crafts Movement, and Art Moderne' architecture and design have always held significant influence on my artistic development. The time which, above all, has exerted the most influence on me is European art and architecture at the Turn of the Century; particularly that on Fin-De-Siecle Vienna during the years 1895 –1915. I have not only been drawn to the executed works, but to those existing only as sketches and drawings.

Vienna, then the capital of the Austro-Hungarian Empire, wielded significant political and economic influence on the surrounding area. As with a number of larger European cities during the late 1800's, Vienna was a place of considerable change and upheaval. Having a multi-originated population, increasing wealth and industrialization, and a desire for growth, the capital experienced a flowering of creativity. Indeed, the years between 1898 and 1918 were the "...the most creative years in Austrian history, and one of the most active periods of artistic and imaginative production anywhere".² These years saw the birth in 1898 of the group which would become known as the Vienna Secessionists, as well as the origin of the Wiener Werkstatte in 1902.³

While many significant artists and architects were active in Vienna,

the work of Josef Hoffman, both in architectural and decorative arts epitomizes for me, "...the esthetic duality of Fin-De-Siecle Vienna – the contradictory impulses for functional simplicity and the urge for decoration...".⁴

Born in Moravia during 1870, Hoffman grew up in a large family which ran a business producing hand-printed textiles. He went on to study at the Academy of Fine Arts in Vienna, eventually under the guidance of Otto Wagner.⁵ As a professor himself at The Academy from 1894 until 1937, and mentor on the Wiener Werkstatte, he occupied a special position of influence.

Inspired by his travel in Italy⁶, Hoffman developed a personal iconography often repeated in his buildings and furniture. Searching for a moral basis for design, he sought to produce "...an attractive house...of a simple layout...with balanced natural colors and...a little sculpture..., the product of a real artist's hand"⁷; in other words, a straight forward building with evident embellishment.

The one aspect of Hoffman's activities with the Wiener Werkstatte which appeals to me the most, in his involvement in a wide variety of design fields, is the reinforcement of the "...nineteenth-century notion of the *Gesamtkunstwerk* ("The total work of art"), whereby all aspects of design were integrated into a unified whole...".⁸ Perhaps no other single work best epitomizes this idea that Hoffman's Palais Stoclet (See Figure 1) built between the years of 1905 and 1911.

The dining room is furnished with furniture and lighting designed by

Hoffman and executed by the Werkestatte, with a frieze of mosaics by Gustav Klimt (see figure 2). As seen in these illustrations, the overall mass and volumes (structure) of the building are reinforced on a secondary level of detail by three-dimensional ornamental outlines. Without such ornament, both the house itself and the dining room would be sterile and uninteresting: the necessity of such ornament to the overall "read" of the work is evident. "The coordination of all ornamental elements within a clear architectonic framework typifies the desire of the Austrian avant garde to provide a unified aesthetic."⁹

Similar sensibilities are expressed in the work of Josef Maria Olbrich. As co-founder of the Viennese Secessionists, Olbrich is closely allied with the sensibilities of Hoffman.

Born in 1867, Olbrich went on to study at the Academy of Fine Arts in Vienna, where he was noted for his design abilities and graphic skill. In 1893, he was awarded the Rome Prize (the same prize which Hoffman was to later win) to travel and study in Italy. Interrupting his travel, Olbrich returned to Vienna to work in the studio of Otto Wagner. He remained at the studio, later joined by Hoffman, and influence of his sensibilities is manifested in work completed by Wagner during Olbrich's tenure. The apartment block at Linke Wienzeile 38 (see figure 3), for instance, demonstrates how "...his inventive skills flourished within the limits of Wagner's underlying classical framework."¹⁰ . The exuberant ornament offers counterpoint to the rational clarity of the overall massing and fenestration, yet is structured in a way which reinforces the order of the building's

openings. It is thus secondary to the structure of the building, but without it the building would be an entirely different work.

The single structure which I repeatedly refer to, and one which has had direct influence on this investigation (see Chapter III) is Olbrich's Secession Building, built in 1898. It contains, for me, a fascinating balance of visual activity and visual repose (see figure 4). As Latham states, "...the decorative embellishments that were carried out serve to complement the Secession Building without detracting from its essential simplicity."¹¹ I feel that without the "decorative embellishments", the building would not have the same visual delight.

While speaking of the Wiener Werkstatte, Jonathon Woodhan says "...The group's products, particularly those of Moser and Hoffman, revealed a sense of structure and geometry suggesting links with the work of Mackintosh and the Glasgow school..."¹². I believe the same holds true for the work of Chicago architect Louis Sullivan, working contemporaneously.

Until I began the research for this body of work, I had not consciously considered the importance of my maturing professionally in Chicago. Perhaps it is like hiding something out in the open; it is so obvious that it is overlooked completely. The richness and clarity of Sullivan's mature work speaks to a deft hand in balancing the desire to communicate the underlying structure of the building while providing reward for closer inspection.

Chicago is known as a city of rich architectural heritage. For the past 100 years, that heritage has been "...the compelling visual beauty of an architecture whose aesthetic quality is so deeply rooted in structure and

technology."¹³. In retrospect, both components of this thesis exploration can be brought back to Chicago's aesthetic heritage.

"Since the great fire of 1871, the city has repeatedly shaped and reshaped itself with often brilliant architecture characterized by simplicity and honesty of form, a product of the plain prairie landscape and the city's industrial orientation to function – to the mechanical underpinnings that make things work."¹⁴

Sullivan's Carson Pirie Scott store of 1889 (originally the Schlesinger & Meyer store) is significantly tied to this heritage (see figure 5). This retail building represents a conscious aesthetic which seeks to balance the structural with the ornamental. Except for the lower two floors "...which are alive with a personal form of ornament,...(the building) is otherwise and primarily an expression of the neutral character of the exposed frame."¹⁵ It is made up of a modular frame clad above in glazed terra cotta with deep, recessed windows. Around each opening, and forming parallel horizontal bands, is linear organic ornament which lightens, yet reinforces the structural expression (see figure 5a). In this use, the building is very much related to Hoffman's Palais Stoclet.

Sullivan, seeking to integrate technological expression and his love of organic embellishment, saw "...ornament as the net by which technology could be captured, domesticated and ultimately transformed into art."¹⁶ The ground floor is covered in a cast bronze "...mesh of filigree: restless, rich and fantastic..."¹⁷ and geometricized organic elements derived from his study of

indigenous prairie flora (see figure 5b). He also spoke of ornament as a means to reinforce the inherent beauty of clearly expressed structure. In 1892, he said,

"I should say that it would be greatly for the aesthetic good if we should refrain entirely from the use of ornament for a period of years, in order that our thoughts might concentrate upon the production of building well formed and comely in the nude. We should thus perforce eschew many undesirable things and learn by contrast how effective it is to think in a natural, vigorous and wholesome way. This step taken, we might safely inquire to what extent a decorative application of ornament would enhance the beauty of our structures – what new charm it would given them." ¹⁸

III.

Four works were produced specifically with my thesis exhibition in mind. A fifth was begun prior to submission of my proposal, completed during the course on the second year, and subsequently added.

The first three pieces, a collection of like-sized tables, were conceptualized as an attempt to come to grips with the spectrum of structure and ornament relatively quickly. I also wanted to have a "work" at the end with which to analyze my next step, and to ascertain some information on the whole issue.¹ As mentioned earlier, I also wanted to further develop the intuitive side of my creative process. I decided to set down on one sheet of paper a series of three tall tables with similar overall dimensions, but whose aesthetic qualities differed. The first and third would speak to the perceived extremes of pure ornament and pure structure, with the second attempting to find some middle ground (see figure 6).

Integral to the process was an early decision to reaffirm the primacy of the intuitive process: to build the tables precisely as they had been drawn in the initial sketch. I urgently wanted to convey as much of the character of the original drawing as possible, and not "develop" the design further (contrary to that dictated to me by my design experience²). This procedural preference came about at a similar time to my decision in a painting course where I ceased to produce preliminary sketches for the finished paintings and "attacked" the canvas directly.

After completing the initial drawings, I was somewhat dissatisfied with

the results and proceeded to do an overlay on sketch paper where I completely changed Table #1 (*Ornament*), significantly altered Table #3 (*Structure*), and changed a few areas of Table #2 (see figure 7). After discussions with my advisors and fellow graduate students, I decided to proceed with the original of Table #1, and the altered versions of Tables #2 and #3.

I originally considered proceeding directly from the sketches to building finished pieces, circumventing the usual task of full-scale, measured drawings. I discovered quickly that the elimination of that step would have caused quite a delay in the series completion. The complexity of some details required illustrative investigation; I chose however to develop an abbreviated set of full-scale drawings.

In an effort to not let the process and completion on one table influence and ultimately compromise the clarity of the others³, I decided to build all three tables simultaneously. In this way, I attempted delay any premature conclusions about any individual table.

The "Ornament " Table, or tall Table #1⁴, (see figure 8) has an anodized aluminum top with turned aluminum, bullet shaped tassel holders, a hand-textured and aniline dyed maple sub-top, and two like-shaped wing legs: one having a yellow/red gesso base with pencil lined grid; the other having the same grid, but defined by a checkerboard of copper and aluminum leaf. Both were constructed out of solid cherry and finished with multiple top coats of clear lacquer. These elements are connected to the top by two solid brass rods which are bent in a modified "S" shape, alternately

hammered and ground, with copper plating which is sandblasted and cut through to form a subtle spiral.

As initially conceptualized, this piece was to explore, perhaps even define, what ornament meant to me. In its eventual form, I believe it ended up being more a piece about decoration. The various shapes, each with a separate and distinct profile and surface, has a different finish *applied*. Each treatment, if removed or altered would affect the final viewer response; but I don't think the change would be of any significant consequence.

The color and materials of the piece all work together and harmonize from a basic design standpoint. The subtle red undertones of the gessoed wing leg picks up the color on the alternating red and blue balls. The blue is emphasized by the color of the anodized aluminum top. The main field of yellow is complemented by the brass spiral around the attenuated arms, the tassel holders, and the tassels themselves. So what I've ended up with is a fairly ascetic color scheme of red, yellow and blue.

I feel the coordination of these colors was a result of my design background. I had not consciously sought such a straightforward "scheme" It would be interesting to make a similar piece with a discordant color scheme.

From the beginning, this piece also meant to serve a dual purpose of being the "ornamented" table in a series as well as provide me with an opportunity to explore various technical skills which I had been exposed to the previous year.

During the summer quarter directly preceding the beginning of my thesis work, I designed and built a pair of end tables (see figure 9). In many

ways this project lead me to the work I'm now discussing. I found considerable enjoyment in the turning of the legs (which someone aptly described as my "warheads" – a shape that would turn up again and again), the hand shaping, and the slight texturing of the slab leg.

At the time, I was surprised at the joy I took in the intricate mechanics of getting the light whip to be removable, disguising the cord travel from bottom to top, and discovering a way in which to get the maple top to intersect the slab leg in an accurate, stable manner while allowing for the natural expansion and contraction that would take place in both pieces.

I went on to use the experiences of that pair of side tables in Table #1. The texturing of the slab top is a direct descendant of the slab leg as is the aniline dye used in its coloration. The shaping and massing of the wing legs are directly referential to the red "slab" of the end tables. Even the use of solid cherry as the species of choice for both pieces is a direct link.

During the construction process, I came to a halt when faced with the problem of making the table as stable as possible.⁵ After reviewing the drawing, I realized that the precise construction of two "S" shaped arms and the stack of balls acting as the third leg would be critical. As mentioned earlier, the arms were constructed out of solid brass. Each arm is actually two sections divided by the sub-top.

The length of each section was determined, with each piece being chucked into a metal lathe and faced off⁶ to the exact length. A slight recess was than turned on one end on each section "A" to accept an isolation O-ring⁷ The other end, as well as one end of each section "B" was drilled to

accept a connecting pin. The four sections were then annealed and bent to final shape on a wire bender.

While bending the pieces, a slight impression was left on the softened brass by the steel jig pin. In an effort to disguise the impression, I decided to add a secondary texture to the arms. They were then copper plated with the brass spiral being ground away as a final step. The joint at the sub-top was counter bored to give the illusion of one continuous piece and epoxied into place with the steel connecting pin (see fig. 10).

The stack of colored balls presented the next challenge. I wanted each ball to "read" as a separate ball stacked onto the next; not as if it had been turned from one continuous piece of wood. I originally intended to drill through the centers of each ball (and the "jar" between the top and the sub-top), and run a threaded rod through them. While this would have held all of them together, I didn't feel it would give the table the stability it required. I then decided that a mortise and tenon joint would produce the best combination of stability, ease of construction, and design carry-through. The blanks for each ball was glued up as one piece and then cut to rough size. Each blank was then mortised on both ends and turned to size using a jig (see fig. 11) designed to maintain centricity and ease of production. They were then textured with modeling paste, painted and finished with a coat of wax prior to final assembly.

The "Structured " Table, or tall Table #3 (see figure 12), was designed to provide an almost dictionary-like approach to structural expression. I chose structure in this instance to reflect a constructed approach or "that

which holds up". The "structural" nature of the table is reinforced by the addition of a plumb-bob⁹ and line which is revealed and emphasized by a cut out in the lower right end of the piece (see fig. 13). For the table to be considered "installed", it must be leveled so that the bob registers with the indicator mounted to the leg.¹⁰

In order to remove the possibility of perceiving the table to be ornamented in any way, I made a few changes during the construction process. The natural maple structure was originally intended to be dyed yellow, and the acorn nuts on the top were to be copper colored. While I feel that the piece as a separate entity may have been enhanced by these items, I was constantly trying to remind myself that the clarity of the series was critical. In the end, the analysis of the three tables as it related to my thesis subject was served by this decision.

Another revision that was made during fabrication was the addition of a light fixture to provide illumination from within of the structure itself. The light is controlled by a electronic touch dimmer mounted to an aluminum button located directly in line with the plumb bob line. It was my intention to call attention to the bob itself, as well as make it apparent that in order to illuminate the structure of the table, you are forced to interact with the piece, thus making it complete. In other words, by physically touching the line which held the bob, the viewer is compelled to acknowledge the significance of the bob.

The table itself is comprised of a solid maple core of legs, rails and X-bracing, a top, and a suspended scrim of aluminum and copper wire cloth.

The construction of the central core has the horizontal rails connected to the legs with a mortise and floating tenon. The construction of the X-braces and the installation of the leg-rail assembly proved to be the most problematic; alignment was of absolute necessity.¹¹

I produced all X-braces simultaneously, producing a unit which was then glued into notches cut in the rails, producing four sub-assemblies of sides. I then manufactured a jig which allowed me to pass the entire sub-assembly through a table saw (see fig. 14), guaranteeing precise alignment. The core was then assembled with the top skirt screwed on later. All pieces were finished with one coat of a hand applied gel varnish.

The scrim¹² assembly is made up of an aluminum angle frame which is TIG welded together. A covering of copper wire cloth is then pulled taut and held in place by a continuous band of 1" wide copper sheet which is fastened to the framework with aluminum pop-rivets. In order to isolate the dissimilar metals, a thin layer of clear lacquer was applied to all members.

The 1/2" thick aluminum top, in combination with the aluminum acorn nuts, reinforces not only the "constructed" nature of the piece, but also expresses a fascination with things mechanical. Old steel bridges with riveted joints and massive stone piers, grain silos, old steam engines, airplanes and ocean liners have always intrigued me with their celebration of assembly and the engineered reduction of all things unessential¹³ I have for many years had a photograph of the Pont des Arts Bridge in Paris hung in my studio (see fig. 15). Even with its age, the elegance of the rationally expressed structure has often been a source of inspiration.

The clarity and stripped-down nature of Tall Table #3 led me to design a cabinet (see fig. 16) with a riveted air-foil top and expressed end support cables. I had hoped to make this my next piece following the completion of the Structure-Ornament table series. It was, however, impossible to complete this and the bed which is discussed later.

The middle table, Tall Table #2 attempted to bridge, or find a middle ground between, the extremes. In many ways, this is the most serene of the series. Perhaps that is why it was generally the most well-received by viewers. It also turned out to be the most technically challenging and personally thought provoking.

Tall Table #2 (see fig. 17) is comprised of four solid Pearwood legs with colored aluminum feet and a series of aluminum cross braces which hold the legs together. The legs themselves are topped off by a finial in the shape of a compressed cylinder which in turn supports the table top; it is made up of a solid pear frame surrounding solid aluminum

The basic notions behind this piece are as follows: I utilized a minimum number of materials in order to distance it from Tall Table #1; the legs would literally not be able to stand without the "structure" of the cross braces; and the structure itself is ornamented by the addition of color. In order that the color not be non-integral, I chose to the anodizing process because it imparts color *into* the metal, imbuing it with integrity.

The wooden legs were ornamented (as was a portion of the top), by the addition of carved, textural facets (see fig. 18). The natural warm tones of the wood were allowed to come through by the clear lacquer top coat. Pear

was chosen for its subtle figuring and soft orange coloring while blue-green anodic dye was used to establish a warm-cool color scheme.

The process of determining how to manufacture this piece turned out to be an arduous task. This table alone has over 45 pieces, not counting the fasteners.

The top itself is made up of four pieces of solid Pear attached to a sub-top of Baltic birch plywood. An anodized aluminum top is epoxied into this framework which in turn is pressure fit onto the anodized aluminum sub-top (see fig. 19). The aluminum⁵ top and sub top have a pattern rotary-brushed into them prior to anodizing which reinforces the cross-braced structural members below (see fig. 20).

The aluminum sub-top is bolted to the finials which are threaded to accept a section of threaded rod which forms the fastening system for the remainder of the table; in affect, the seven pieces which make up each leg are bolted together.

The wood members were fabricated by boring a hole at each end of square stock which had been cut to a prescribed length. Into each bored hole was inserted a captured T-nut (see fig 21). The two wood pieces of each leg could then be fastened with another section of threaded rod. Likewise, the aluminum foot was tapped to accept the same system.

The challenge came in designing a system to hold the legs to each other; and once determined, manufacturing it. I came to utilize a system of precision-machined aluminum rings¹⁴ pinned to cross braces fabricated from

1/4" square aluminum stock with a cross lap joint at the intersection. The rings have a hole in the center to allow for the threaded rod to pass through and connect to the leg section below.

Following completion of this piece, I went back and looked at the original design drawing in order to check its accuracy. I was somewhat surprised to see that I had significantly changed the proportional relationship between the top and the legs. What had started out as a thin, attenuated top had been beefed up with exactly the opposite happening to the legs. I believe this change took place in the full-scale drawing stage as a result of available stock, but at the time I did not realize it's significance.

Upon review of the series as a whole with faculty and peers, it became apparent that my goal of retaining the character of the original drawing had been missed; particularly with Tall Table #2. The cross braces in the drawing have an energetic "wiggly-ness" that those of the finished piece lack. I feel now that this failure is due in large part to the intermediate process of *drafting* full-scale construction drawings. Perhaps making measured free-hand drawings would lead me back to the original goal of more expressive line in the finished piece. The placing-away of the earlier design sketch, and not viewing it throughout the fabrication process also led to this condition.

The series itself was a success in that it allowed me to see the spectrum which I attempted to represent. I found that the ornamented piece could have gone further; perhaps leaving symmetry and applied decoration behind. On the other end, with Tall Table #3, I feel it would have been

effective to reveal a bit more of the structure within the scrim. As a result of this analysis, the series as a whole provided direction to the next work.

As conceived, the Golden Cabbage Bed was meant to deal with four main issues: Larger scale, the blending of structure as an organizing system (apparent order) and physical support, the use of structure as both visible and implied, and the use of three dimensional ornament and the removal of “decoration”.

The decision to produce a queen-sized bed was a result of my desire to increase the size of the work which I was producing. I wanted to make a piece which could not be taken in at a glance: one which required the viewer to walk around and experience it from various angles. This desire is at least in part due to my professional background of designing entire spaces which are inhabited.

I was also driven by an overriding desire to not resort to the convention of placing flat planes at the head and foot; all the members had to have significant dimension. As Lewis F. Day states in “Nature and Ornament”, “The one thing to be insisted upon in reference to convention is that it has not been done for us once and for all, that we have to do our own conventionalizing; and not only that, but we have to do it again and again...”¹⁵ In other words, I wanted to make it my own.

I used a similar conceptualization process to the table series in that I drew directly on a like sized piece of paper and did not “develop” that drawing (see fig. 22). Many months prior, Bob Leverich had shown me a book on the work of Gustave-Nicolas-Joseph Serrurier-Bovy, a Belgian

architect and furniture designer working between the 1890's and 1910. I was particularly drawn to a bed which had a prototypical headboard and footboard, both of which were surmounted by stylized trees made of cast bronze (see fig. 23). While I was producing preliminary sketches for my bed, I was not consciously thinking of Seurrurier-Bovy's, but obviously the subconscious knowledge and influence of it was strong.

In many ways, historical models influenced the design of this piece more than any other. I realized some weeks after completing the drawing that the leaf ornament had a direct precedent in one of my favorite buildings; the Secessionist Building mentioned earlier (see fig. 4a). The dome of the building is comprised of gilded metal laurel leaves on a metal framework. The similarities were so striking that I adopted the nomenclature attached to Olbrich's dome when first viewed by Vienna's populace; "The golden cabbage..."¹⁶. While Vienna's press originally intended this to be derisive, I titled this one work in order to voice my esteem for this building.

After analyzing the outcome of Tall Table #1, it was very much a conscious decision to remove from the bed's design and execution anything which I could label "decoration": the wood would be finished with a clear top-coat and left to patinate naturally; the same decision was made in respect to the metal surfaces.

Further, I sought to remove whatever could be considered "applied" (and thus deleted without consequence) of any associations and made those elements metal (cast leaves, exposed rivets and exposed fasteners). By doing this, I have actually called attention to the items which are of

considerable consequence to the piece.

Formally, the bed (see fig. 24) is a series of four legs connected by rails (side rails are removable, the front and back are permanent) with a three dimensional structural grid work forming infill between the legs at the footboard and headboard. Attached to the grid is a series of curved panels and cast metal leaves (see fig. 25).

The desire to have any viewer be able to understand the "structured" nature of this piece led to the decision to expose, even reinforce, the point of fastening of members to the three dimensional grid work. I wanted the viewer to get a sense of the structure as well as see that which was exposed.

The rivets which hold the leaves to the grid, by necessity, only appear at a grid member. Likewise, the cap screws which hold the molded panels are located at the centerline of a horizontal grid member. Similarly the vertical joint lines between the panels are located on the centerline of the vertical grid member. The relationship of the joint line and the fasteners to the structural grid is most evident when viewing the back of the headboard (since bedding is not present).

Due to the decision to expose the fasteners and call attention to the function and location of the grid behind, I felt that the craftsmanship of these members had to be impeccable: the squareness in three dimensions of the grid had to be precise, the molded panels had to be absolutely square, the vertical planes of the legs into which the grid would be placed had to parallel.

The shaped legs of the headboard are each made up of laminated

cherry which has been shaped into relatively straightforward, uncomplicated surfaces. The cross section and facets of these legs were inspired by the zoning-law drawings of Hugh Ferriss, completed in 1922 (see fig. 26). I enjoyed the forcefulness and strength implied by these bold shapes.

In order to ease the transition of the leaf-trelis into the mass of the legs, I capped the legs themselves with sheet-pewter sections which have been hammered into shape and fastened with small escutcheon pins. I had originally intended to have this sheathing be one continuous sheet, but was forced to rethink it when I was unable to form the single sheet as quickly and expertly as required. For a short time, I considered applying a metal leaf (similar to Tall Table #1) to the wood mass, but felt its applied nature would conflict with my desire to use only three dimensional ornament. In the end, I enjoy the surface quality of the overlapping sheets.

The side rails are each shaped from a single board of solid cherry, mounted with two pairs of bed-rail fasteners at each end. The bottom edge is parallel to the floor while the top edge is slightly curved downward from the ends to make reference to the swelling upward of the headboard. Since the rails themselves will be covered in most cases by the bedding, no additional texturing or ornamenting was added.

In order to prevent limbs from getting stuck in the metal foliage of the footboard, a molded plywood panel similar to the one on the face and the back of the headboard is present from the base to slightly above the level of the mattress. In addition to being finely grained and not visually active, beech veneer was chosen for these panels to be harmonious in color with

the cherry. By having a subtly textured grain pattern, these panels become secondary to the visual interest of the leaves, the structural grid, and the massive legs.

The foliage pattern is made up of leaves of three different sizes. The leaves themselves are cast from molten pewter into a silicon rubber mold. I initially intended to cast them with aluminum, but after investigating the requirements for melting (1100 degrees) and casting (sand of plaster shell), I determined that a faster, more efficient method was required. In addition to the casting process, I needed to be able to bend the leaves after they were cast to form the three-dimensional draping that occurs at the top of both the headboard and footboard.

In many ways, the fabrication of the Golden Cabbage Bed was the most gratifying of any piece made. It is the culmination of two years of study both technically and aesthetically, it utilized techniques which I had not previously attempted (molded plywood panels, cast metal ornament), and the complex and intricate construction is belied by its apparent formal simplicity. It brought together my fondness for mechanical precision, a new found love of hand shaping, and the primacy of working the material directly with hand tools.

From an aesthetic standpoint, it reaches an equilibrium between complexity and simplicity, machine-made and handmade. My original goal of expressing the physical support and the ordering qualities of the structural grid have been satisfied.

The bed also represents a realization on my part of some of the formal

similarities and “language” which runs through my work. A strong desire to soften the hard geometry of my previous work has been satisfied; a more complex and direct relationship between plan, elevation and cross-section has been established.

To call attention to this realization, I added to the body of work to be shown a piano lamp begun during my second quarter at R.I.T (see figure 27). I continued work on the lamp up to three months prior to my thesis show, intending only to finish the piece prior to graduating. It was while working on the bed that the relativity of this piece became pronounced. The “caps” on both the headboard and footboard reminded me of the ends of the lamp. In fact, the infill “panels” in the bed mimic the lamps panel (see fig. 28). Even the act of exposing the fasteners is akin to the lamp the celebration of that which is mechanical.

The uniqueness of the lamp, relative to the other works, is that it is primarily machine made. Except for the glass top which was sand cast, all parts were fabricated with a variety of metalworking machines. Once again, the reference to 1930's streamlined design is apparent.

The Piano Lamp was designed as a gift for my wife. It was meant to sit directly above the page of opened sheet music on an upright piano. In order to illuminate the page, it had to have linear lamping; running parallel to the page below. It consists very clearly of a base milled from solid aluminum, two uprights turned from aluminum rod, and a top assembly of spun aluminum ends with formed aluminum plate panels.

The lamp is illuminated with two tubular incandescent bulbs, and has

a cast glass top which provides ambient illumination when lit. The textural quality of the sand casting process remains provides a contrast to the apparent harshness of the machined aluminum. The addition of minimal color, in an anodized aluminum ball between the two uprights and an anodized aluminum vent at the front and back, warms ¹⁸ the overall effect.

Looking back at it now, I feel the piece would have been well served by some sort of horizontal “finial” at the bottom of the shade. (see figure 29) This band would have helped the shade “read” as one unit instead of the assembly of parts which is now apparent.

In closing, I feel a review of the currents which run through my work is in order. I have chosen a medium (furniture) which has been primarily driven by functional concerns. I have always felt a special need to make function a high priority. It has been, and continues to be, the singular driving force behind my work.

Of equal importance to the above concern is that of craftsmanship. I have endeavored to bring my technical skills up to the level of my conceptual design and delineation skills. I feel strongly that the viewer/user of any work should not have to “get beyond” inadequate craftsmanship in order to appreciate a piece. In many ways it is like a piece of music; one cannot appreciate the whole if one is stumbling over the playing of the parts. I have also to keep in mind that for me, the technique involved in a piece is not to be its primary concern.

At a 1991/92 show of Martin Puryear’s sculpture at the Art Institute of Chicago, I was reminded of this issue. A vast majority of his work involves

the display of consummate craftsmanship; the quality is a non-issue. In fact, his approach to his work has been criticized as excessive by some critics. However, in a few of his later works, he has chosen to make technique an issue. Nancy Princenthal sees, "... in Puryear's recent pieces, including several rough-hewn, jerrybuilt wood sculptures, a deliberate resistance to skill - a radical recalibration of the work's grace and awkwardness..."¹⁹ This is a conscious decision to "lower" the standards in order to achieve a desired effect. It is not born out of ignorance of inability, but out of a desire to strengthen and reinforce the original conceptual underpinnings of the work.

The clarity and strength of the concept is the third issue which consistently drives my initial decisions. In order to have a work to hold together unto itself, and certainly as a part of a larger whole, I think a primary notion, a main idea, a conceptual foundation must be present. If for no other reason than to guide subsequent decisions as the design develops, some underlying consistent answer to "why is it this way" is required. As Jim Hill states, "It is all very well for the 'new furniture' to celebrate materials and workmanship, but there is every reason to examine the conceptual underpinnings of such hybrid objects to discover what makes them truly precious and insightful works of art."²⁰

IV.

I have until now, not reiterated the title of my thesis, "The Necessity of Artifice". The title itself comes from a book of the same name by Joseph Rykwert; a collection of critical essays on art, architecture and design. When I first came upon this title, I was in the final stages of writing options for my thesis proposal. I was struck by how clearly this summed up my desire to produce work which had complexity, yet was understandable.

I feel it's necessary indeed to offer, as a visual artist, something to intrigue the viewer; something to delight the eye. I have avoided attempting to define beautiful, for I do not attempt to produce beautiful work. I seek to work in a way which appeals to the experiences of the viewer.

For some time, I have considered revising the title; for upon looking up the definition of artifice, I found "...a clever trick...synonymous with deception"¹. After several attempts at new titles, I went back to review the definition. This time, "...inventiveness...an artful contrivance..."² struck me as appropriate. I do intend to *bring about by a plan*. The plan is to engage the viewer/user in the piece to such an extent that he/she develops and relationship with it. By consciously introducing and reinforcing various levels of detail³, the viewer is rewarded for closer and closer investigation.

As Rykwert states "...ornament had once meant that which makes decent in supplying a missing essential."⁴ The key word for me here is "essential", for I believe that without ornament, the work is unfinished: in other words, it is necessary. For me, the supplying of that missing essential,

whether it be cast leaves, hand carved texture, or other surface embellishment is critical to satisfying the whole.

This body of work, and the activity producing the work, has led me to a deeper understanding of my own creative process. I have developed a much greater ability to lend credence to the intuitive portions of that process. This, I hope, will lead to much stronger work. The depth and maturity of my artistic pursuits has been well served by this thesis investigation. Design, as Ferdinand Porsche puts it, is an act of "...liberties and limits: liberties are the designer's imagination and instinct, the limits are the purpose, function and materials relative to the work in question."⁵ I have truly begun to define my own limits and liberties.

The general reading and direct research for this thesis has rekindled my quest for knowledge which had been quieted by years of working with pat answers and solutions which had been proven out numerous times before. There has been, for a number of years, a strong desire to scrutinize the realities of my creative endeavors. These past two years have indeed satisfied that yearning as well as put my efforts on a new and personal path. This effort will remain always a bench mark for judging the work against the intent behind it.

NOTES I

1. The “business” of design requires decisions to be made based on a variety of rationale; budget, schedule, client requirements and aesthetics. Often budget requirements overwhelm the availability of time required to delve into potential solutions. Thus indubitable solutions develop over time for like-minded projects so that project development can be accomplished in an efficient and thus profitable manner.

2. Graduate Forum was a class taken during the Spring Quarter of 1990; designed to present issues for investigation and discussion. Each student was given a selection of “opposites” (such as “Art vs. Craft”, “Structure vs. Ornament”, “Freedom vs. Censorship”, etc.) from which to develop a presentation to the class as a whole.

3. Libby, William Charles Color and the Structural Sense (Englewood Cliffs, NJ, Prentice Hall, 1974), 95.

4. Ibid., 99-100.

5. My own thesis proposal, dated 28 September 1990.

NOTES II

1. I have often referred to, and been influenced by, Art Moderne architecture and design for its celebration of the industrial and the mechanical and its embrace of technology.

2. Nicolas Powell, The Sacred Spring: The Arts of Vienna 1898-1918 (Greenwich, New York Graphics Society, 1974), 12.

3. The Wiener Werkstatte, or Vienna Workshops, was founded to produce works designed by secessionist members. It was led by Hoffman and Moser, with the financial assistance of Fritz Wandorfer.

4. David Gebhard, Josef Hoffman: Design Classics (Fort Worth; Fort Worth Art Museum, 1982), 6.

5. Studying at the same time with Wagner at the Vienna Academy were other figures which have been influential to my work, notably Josef Maria Olbrich and Koloman Moser.

6. Hoffman won the Prix de Rome in 1895, traveling to Verona, Florence, Rome and other cities in Italy. During his trip, he produced over 200 sketches.

7. Franco Borsi and Ezio Godol, Vienna 1900: Architecture and Design (New York, Rizzoli International Publications, 1986), 101.

8. Jonathon M. Woodham, Twentieth Century Ornament (New York, Rizzoli International Publications, 1990), 16.

9. Ibid., 33.

10. Ian Latham, Josef Maria Olbrich (New York, Rizzoli International Publications, 1980), 12.

11. Ian Latham, Josef Maria Olbrich (New York, Rizzoli International Publications, 1980), 26.

12. Woodham, 16.

13. Oswald W. Grube, Peter Pran, and Franz Schulze, 100 Years of Architecture in Chicago; Continuity of Structure and Form (Chicago, J. Philip O'Hara, 1973), foreword.

14. Richard Connifer, National Geographic, (Volume 179, No. 5, May 1991), 56-58.

15. Grube, 19.

16. Ibid., 19.

17. Ibid., 32.

18. Louis Sullivan, Kindergarten Chats and Other Writings (New York, Dover Publications, 1979), 187

NOTES III

1. I assumed that by having a range of pieces to analyze at the end of this first work, I would be able to compare and contrast the pieces. Rather than finish the first step with only one piece which would not be broadly representative of the intended "scope"

2. The Interior/Architectural design process is typically broken down into five phases; 1–Programming (Information gathering), 2–Schematic Design (Initial concept development), 3–Design development (Refinement of concepts), 4–Contract documents (Construction drawings and specifications), 5–Contract administration (Construction of designed interior/building). Each of these steps follow in sequential order. I attempted in the table series to eliminate phases 3 and 4.

3. I felt strongly that by building and finishing one table before the others, I would somehow influence the decisions I would end up making in the completion of the other two. Since I specifically desired to analyze the series as a whole, I needed to produce the series simultaneously.

4. I consciously decided against titling the individual tables, opting for generic names such as "Table #1", etc.. I wanted the entire ensemble to be the whole. The three together are known as: Structure/Ornament Series.

5. While I felt that the actual function of these tables could be subjugated to more formal concerns, I did not want those concerns to overwhelm my primary desire; to build functional furniture. I decided to delay revising the design to solve this strictly functional problem until the series was completed.

6. The term "faced-off" refers to the process on squaring up and end of tubing or rod while turning in a lathe; removing a small amount of unevenness left by cutting the round stock on a less accurate machine.

7. Although the aluminum top was going to be anodized, I did not want the two dissimilar metals (copper-plated brass and aluminum) to come into contact with each other.

8. While not inherently adding support to this particular table,

I chose the stereotypical "structural" X-braces to symbolize structural stability.

9. The plumb bob was added after the original drawing; it was initially included in the first phase design (see figure 6). I felt it necessary to reinforce the concept of structural integrity from an architectural standpoint; plumbness of a structure is a basic tenant of its stability.

10. The leveling is accomplished by recessed adjustable aluminum feet. Each foot is adjusted independently.

11. In general, I feel that inadequate craftsmanship cannot be allowed to become a factor in the analysis of the piece. If sub-par technique is allowed to "get in the way" of a viewer's appreciation, the piece is not successful. Thus, excellence in craftsmanship must be the norm.

12. I continue to refer to this "part" as a scrim as a reference to the theatrical member which diffuses what is behind it when illuminated from the front, yet reveals what is behind when rear-illuminated.

13. During the process of completing my thesis work, I maintained both a sketch book and a notebook. The notebook itself held examples of "expressed structure" that I was drawn to; bridges, grain silos, older airliners, etc.

14. All of the pieces in the thesis exhibition, except for the Piano Lamp, have combined the use of metal and wood. I selected Metalworking and Jewelry as my minor and supplemented those studies at night with machine shop classes; partly as a desire to not be limited to wood, and partly because of the intrinsic qualities of various metals and its potential to evoke reactions other than those produced by wooden objects.

15. Lewis F. Day, Nature and ornament: nature the raw material of design, ornament its finished product. (London: B.T. Batsford; New York: Charles Scribner's Sons, 1910),7.

16. Ian Latham, Josef Maria Olbrich. (New York: Rizzoli International Publications, 1980), 27.

17. I am concerned that viewers understand the intent of each piece. Although this is obviously an issue for most artists, I feel employing the medium of functional furniture, because it is experienced everyday, places the responsibility on the artist to move beyond the conventional associations typically attributed to functional furniture.

18. I became fascinated by the aluminum anodizing process in the Spring of 1990. The possibility of utilizing metal, with its inherent characteristics, and still impart color which is more than surface applied offered a whole new material/process to investigate and add to my "language" The fact that aluminum is a non-ferrous metal and thus can be cut with woodworking machinery further added to its appeal.

19. Princenthal, Nancy American Craft (February/March 1992 V52), 66

20. Hill, Jim American Craft (February/March 1992 V52), 52

NOTES IV

1. Random House Dictionary of the English Language (New York, Random House Inc., 1987), 37.

2. Ibid.

3. For numerous years, I have worked to develop what I refer to as three levels of viewer appreciation/interaction. *Primary*: The first comprehension of a work; that is when the viewer first sees a piece from a distance. Overall shape, size and color, general material usage and perhaps function is recognized. *Secondary*: Upon closer inspection, the viewer notices such things as specific function, specific materials and perhaps combination of materials, color relationships. *Tertiary*: Complex relationships of texture and color, workmanship are noticed upon the closest of inspection. It is constantly my intent to reward the viewer for closer inspection.

4. Joseph Rykwert, *The Necessity of Artifice* (Rizzoli International Publications, Inc., New York, 1982), 92.

5. Ferdinand Porsche, Notes from exhibition "Austrian Architecture and Design: Beyond Tradition in the 1990's" at the Art Institute of Chicago, January 1992.

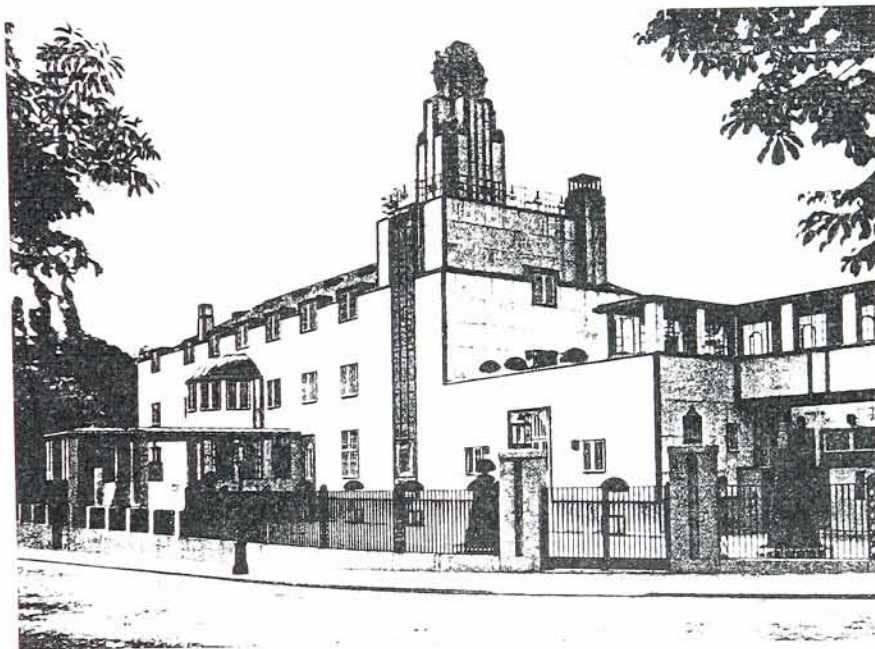


Figure 1

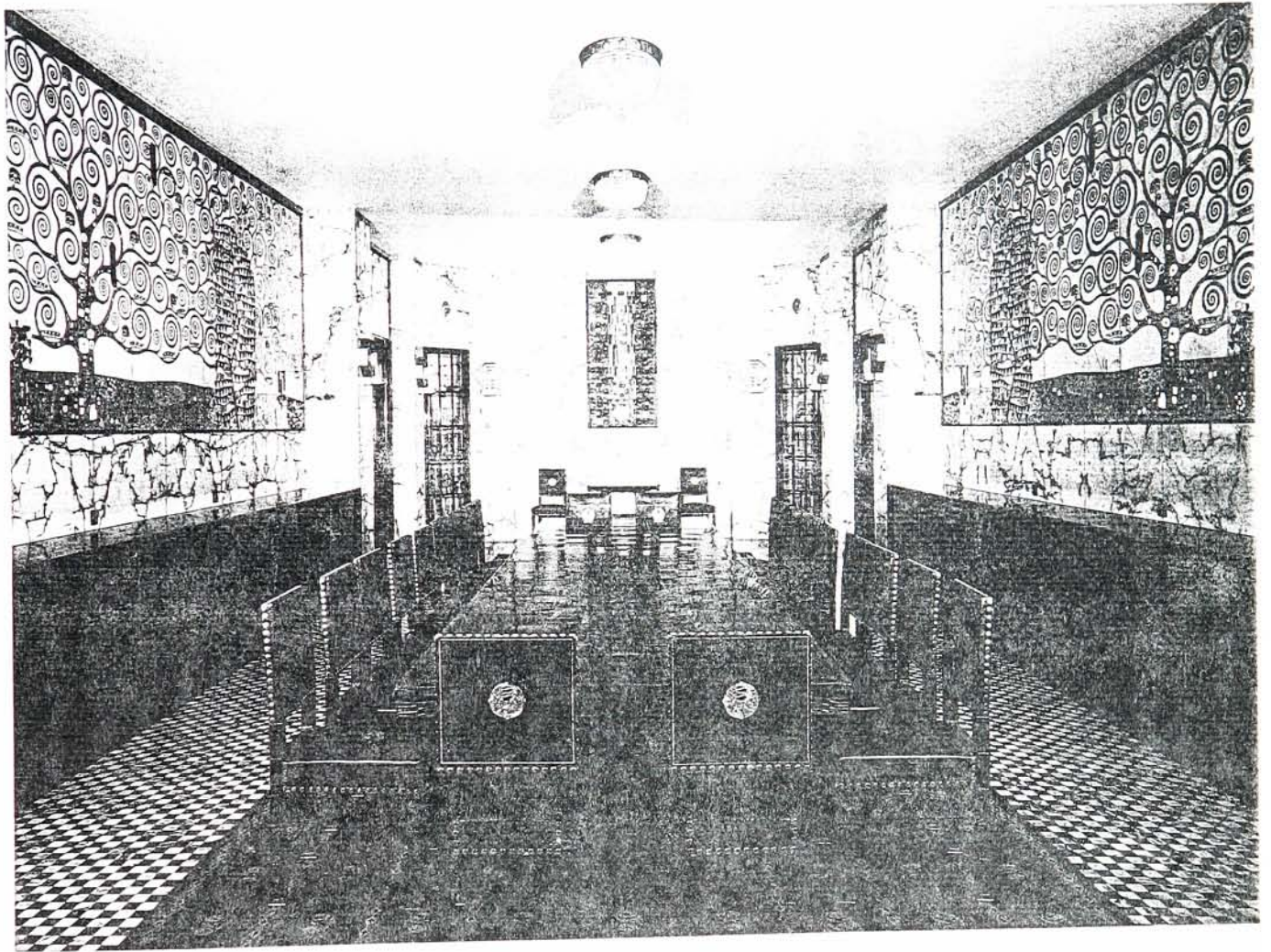


Figure 2



Figure 3

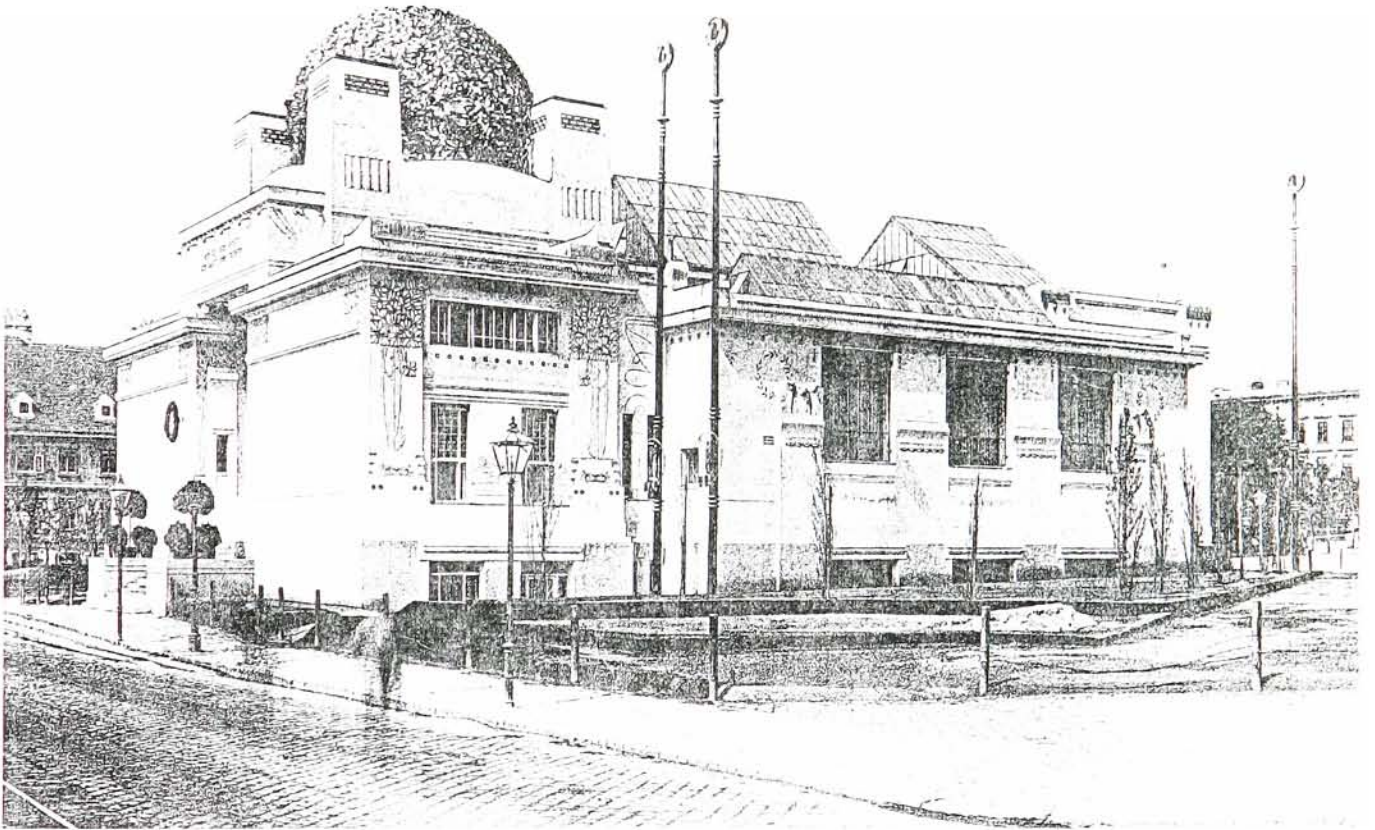


Figure 4



Figure 4a



Figure 5

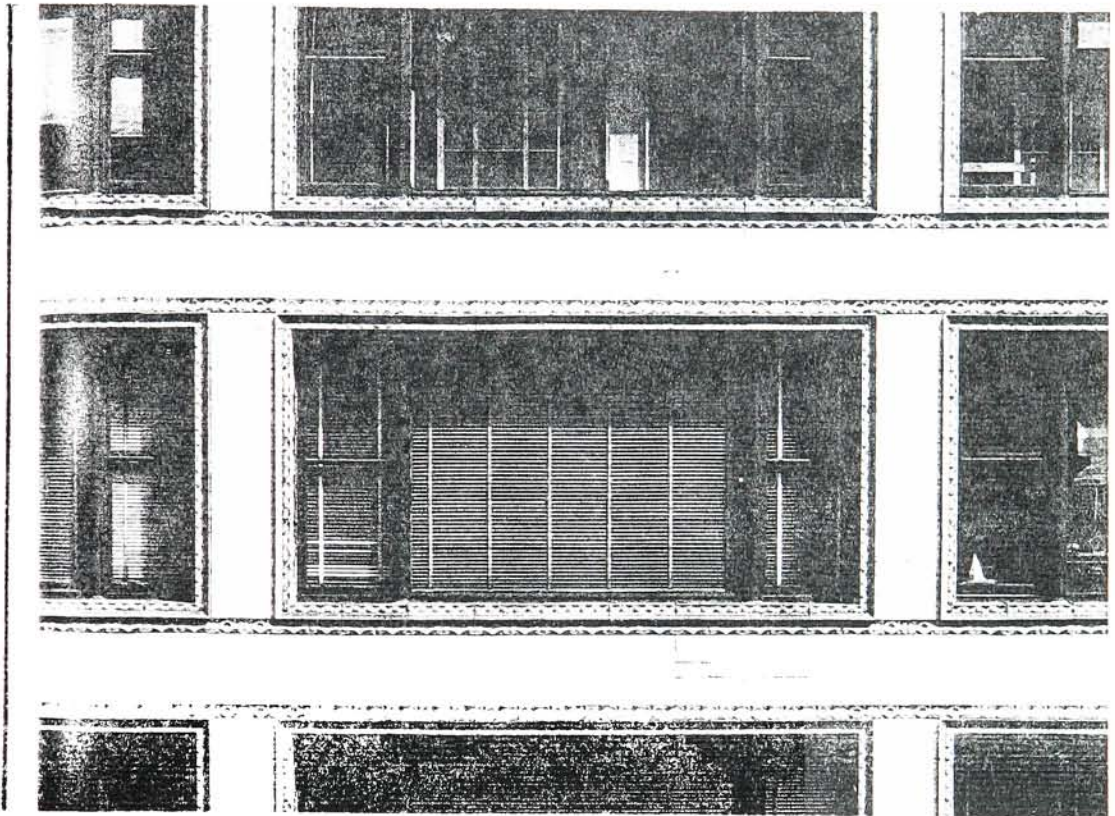


Figure 5a

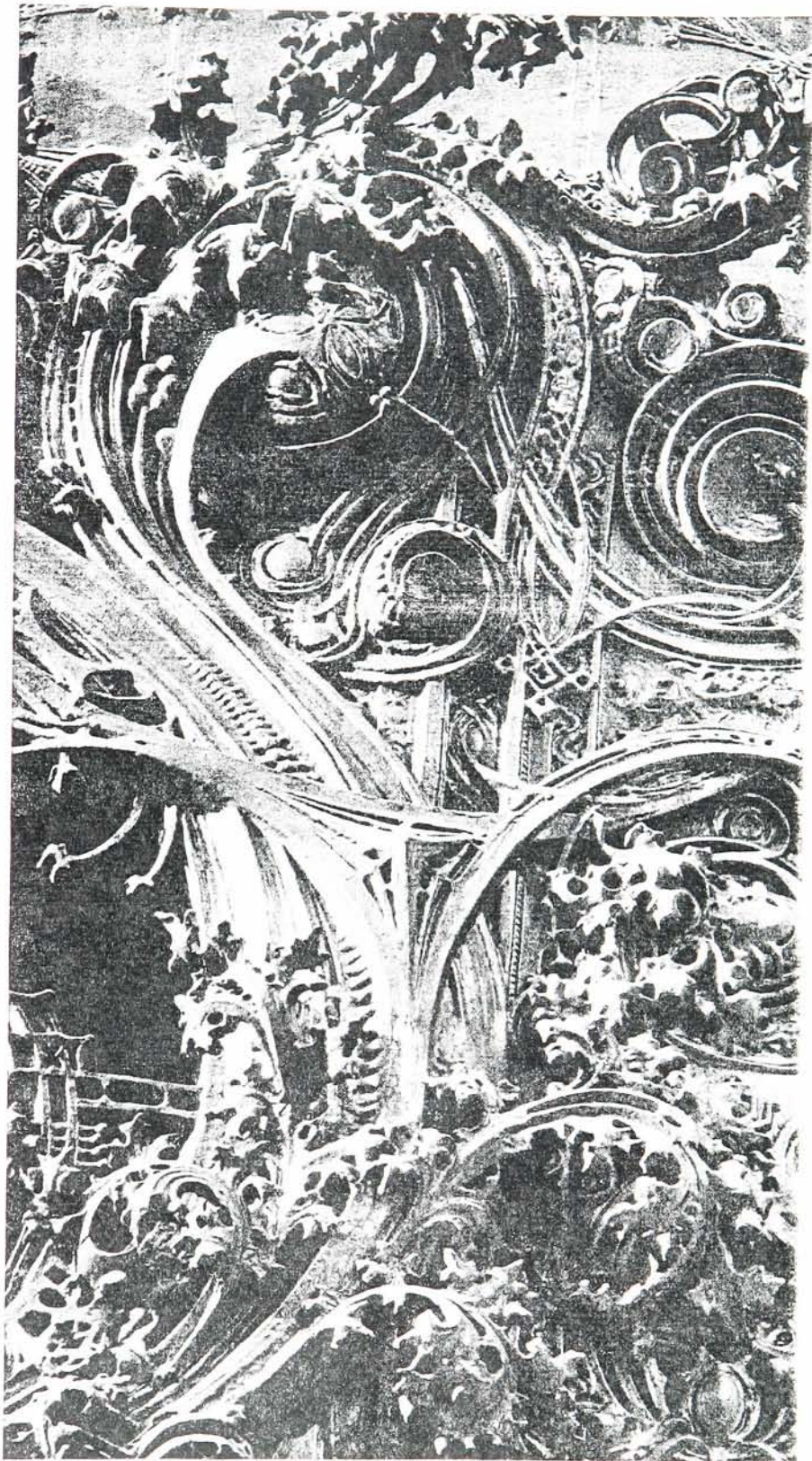
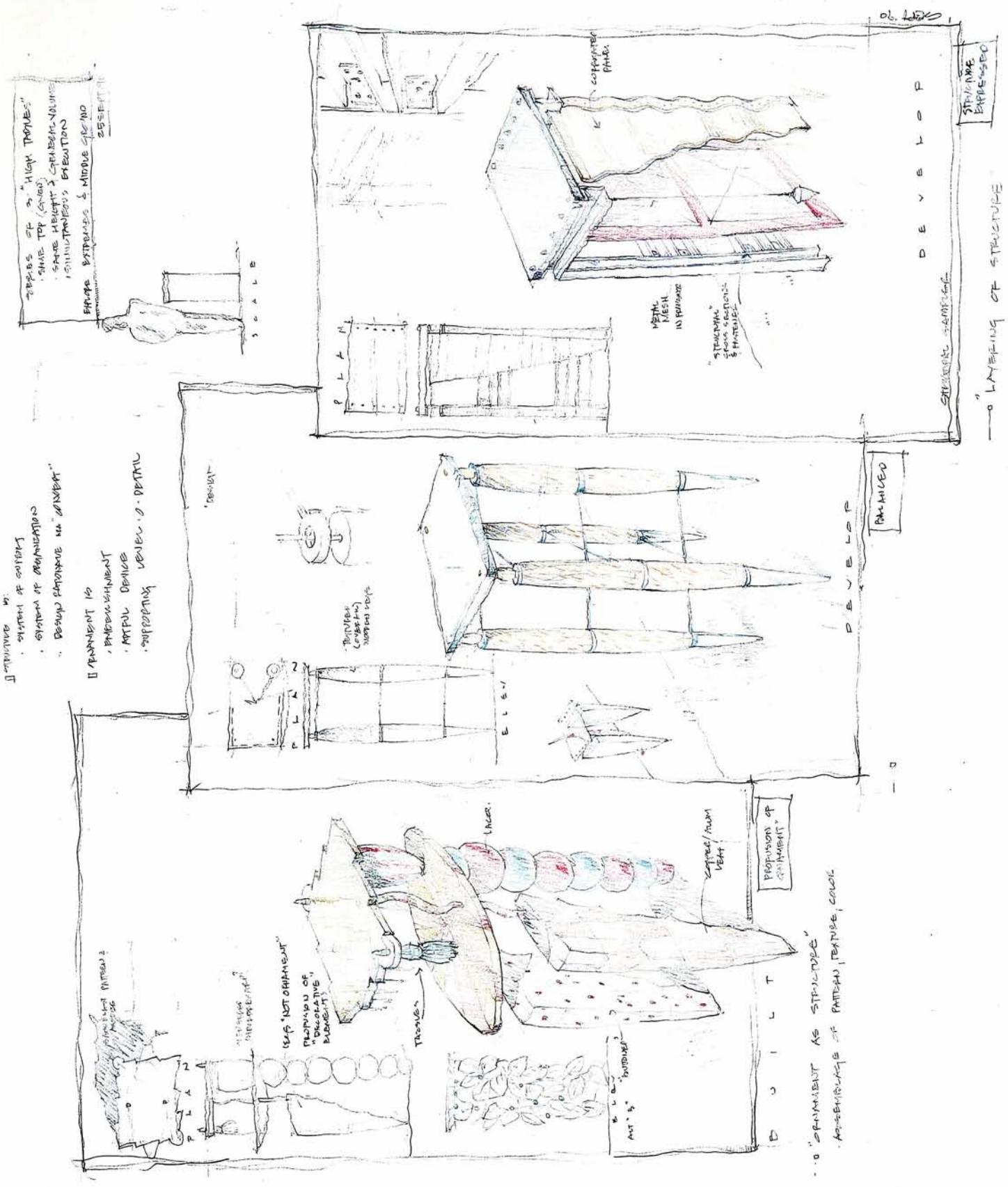


Figure 5b



TEARS OF "HIGH TONES"
 "SHARPER" (SHARP)
 "SAME HEIGHT & GRADE" (SAME)
 "CONTOURLESS" EXECUTION
 "FRANK" EXTREMES & MIDDLE (FRANK)
 "RESIST" (RESIST)

SYSTEM OF ORNAMENTATION
 DESIGN STRONGER IN "ORNER"
 ORNAMENT IS
 "EMBEDDED" ELEMENT
 "ARTFUL" ORNAMENT
 "SUPPORTING" LEVELS (SUPPORTING)
 "DETAIL" (DETAIL)

SCALE
 SCALE

STYLING
 EXPRESSED

LAYERING OF STRUCTURE

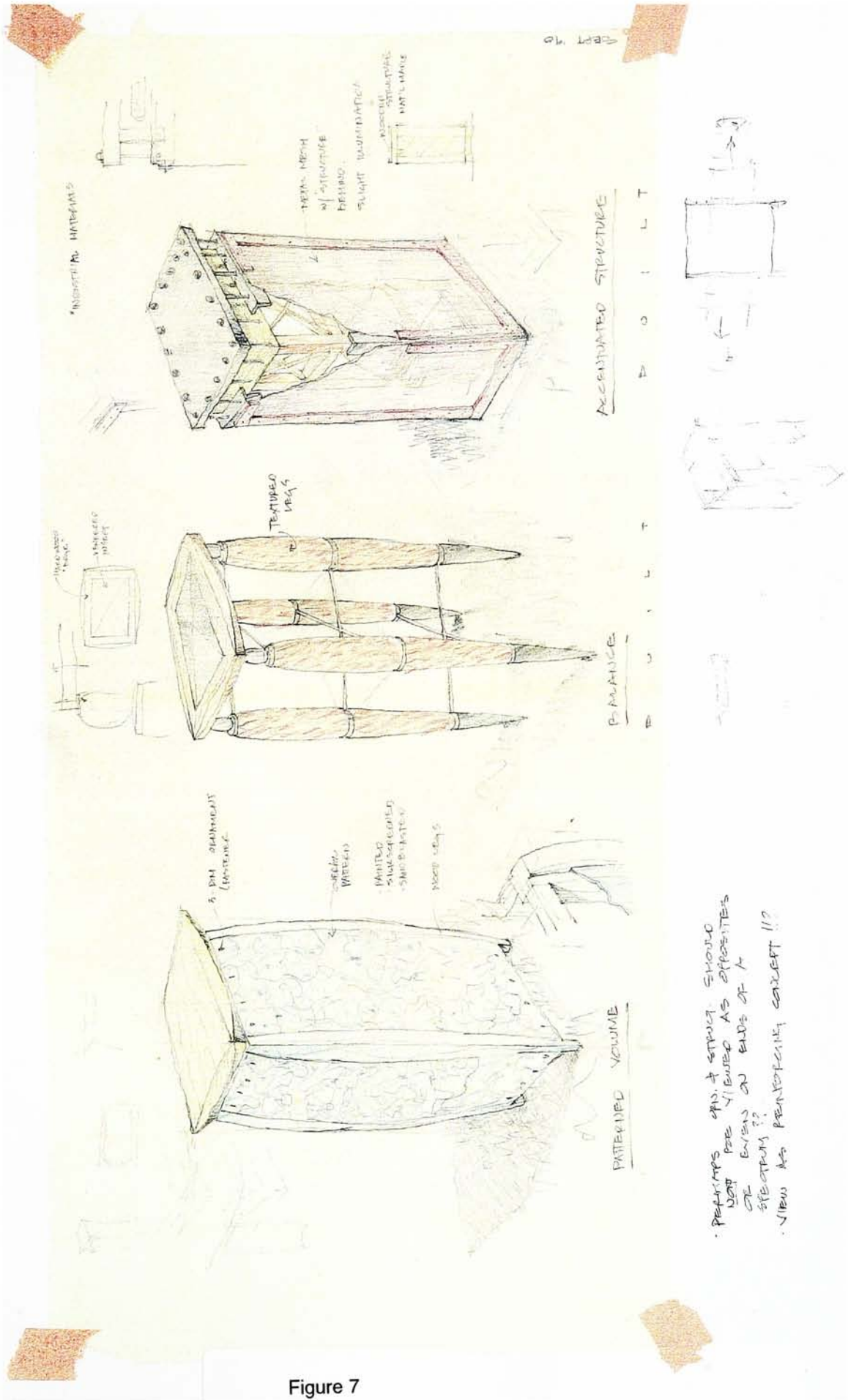
ORNAMENT

DEVELOPMENT

DEVELOPMENT

PROVISION OF ORNAMENT

Figure 6



- PERHAPS THIS STRUCTURE SHOULD NOT BE VIEWED AS STRUCTURES OR ENVIS ON ENDS OF A STRUCTURE??
- VIEW AS PERFORMING CONCEPT !!

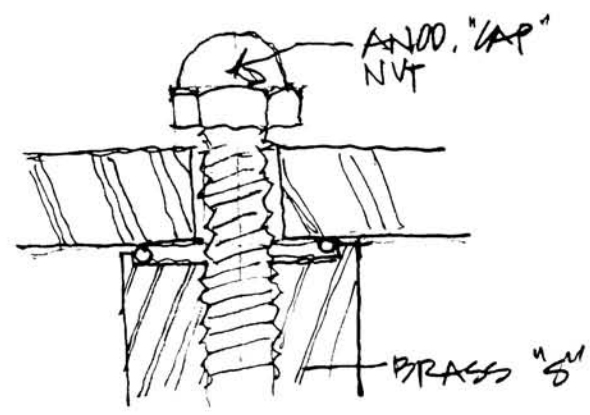
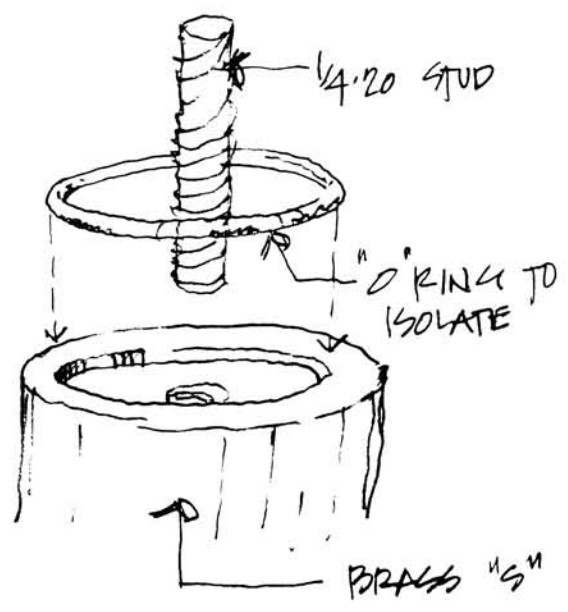
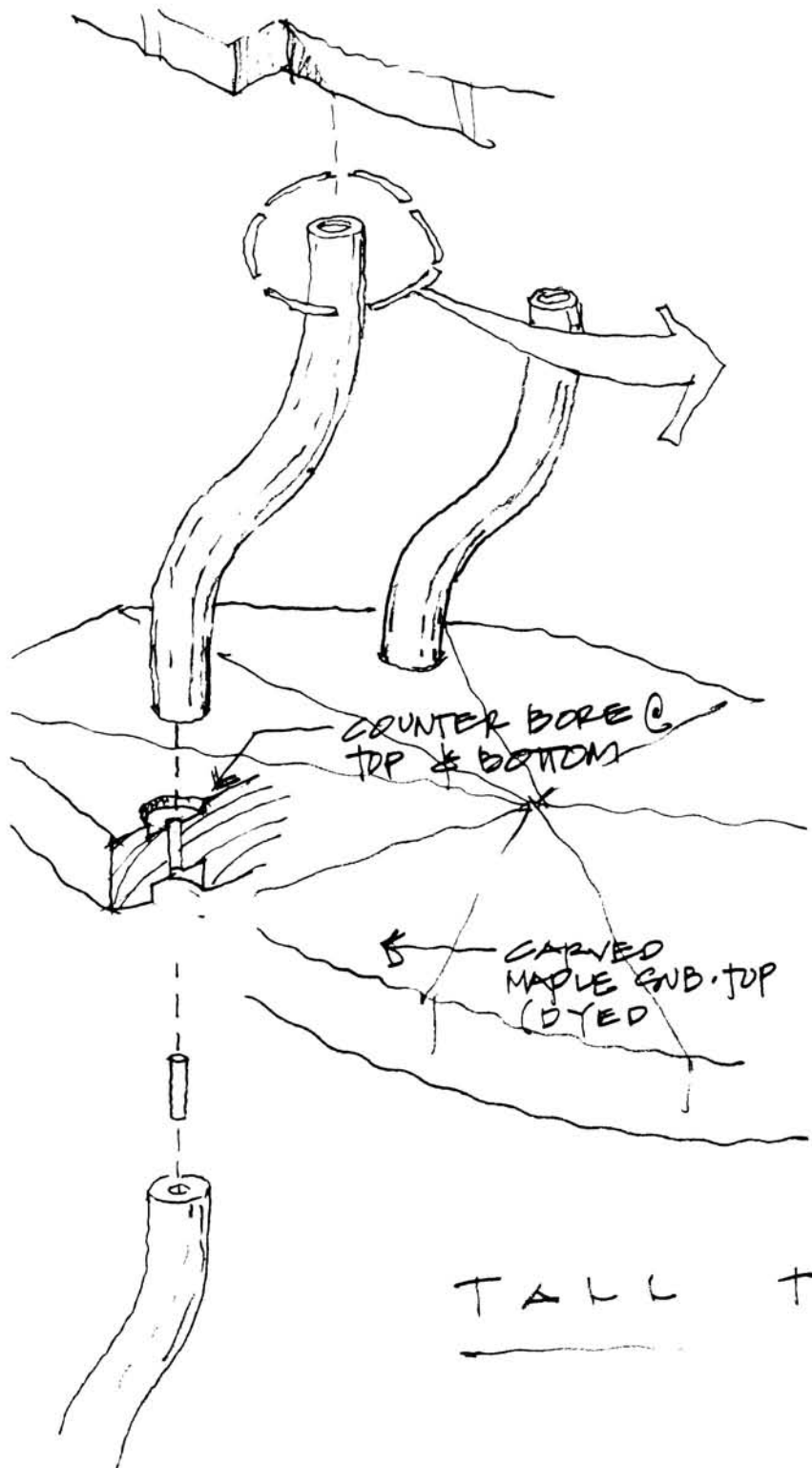
Figure 7



Figure 8



Figure 9



TALL TABLE #1

Figure 10

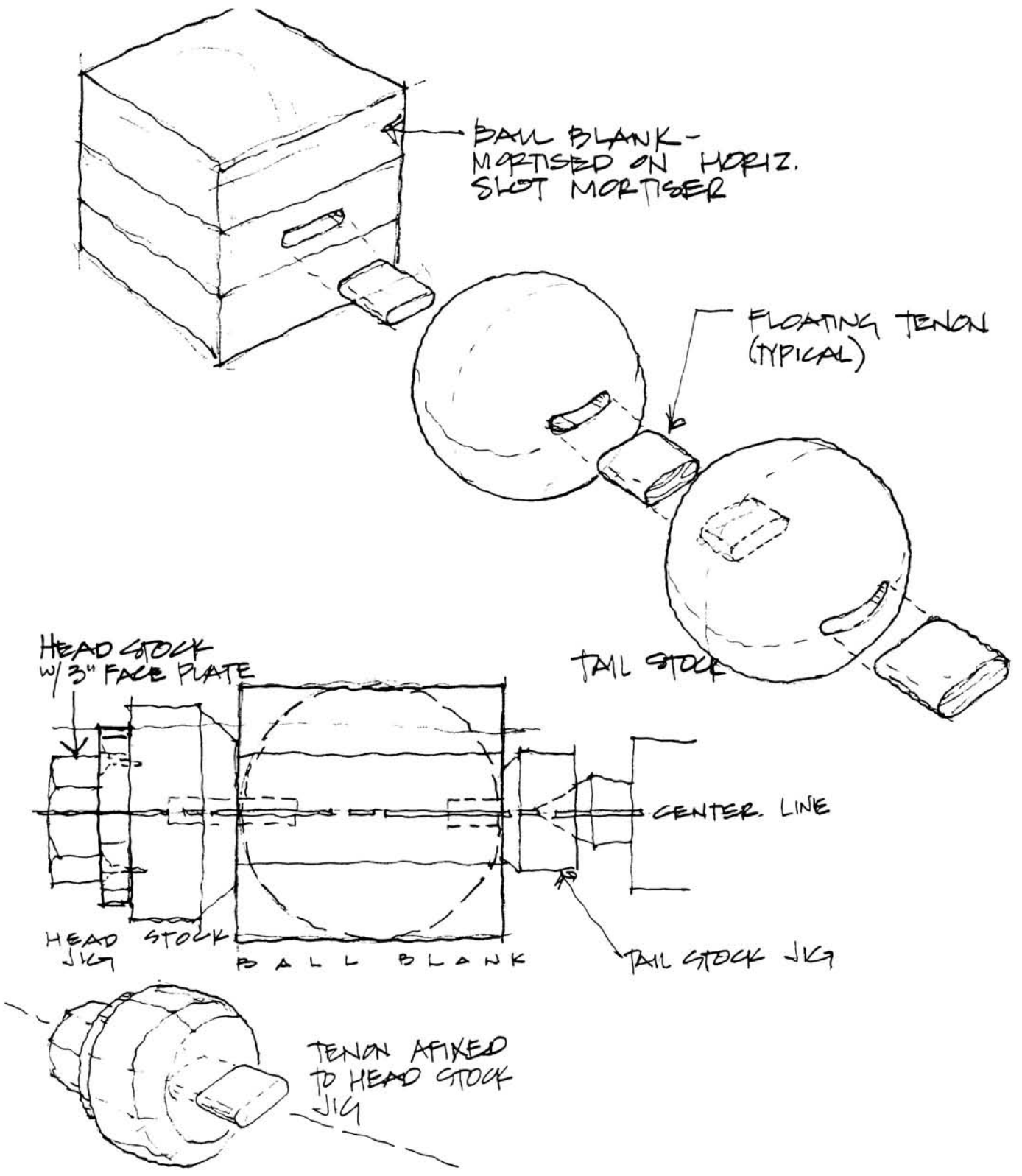


Figure 11



Figure 12

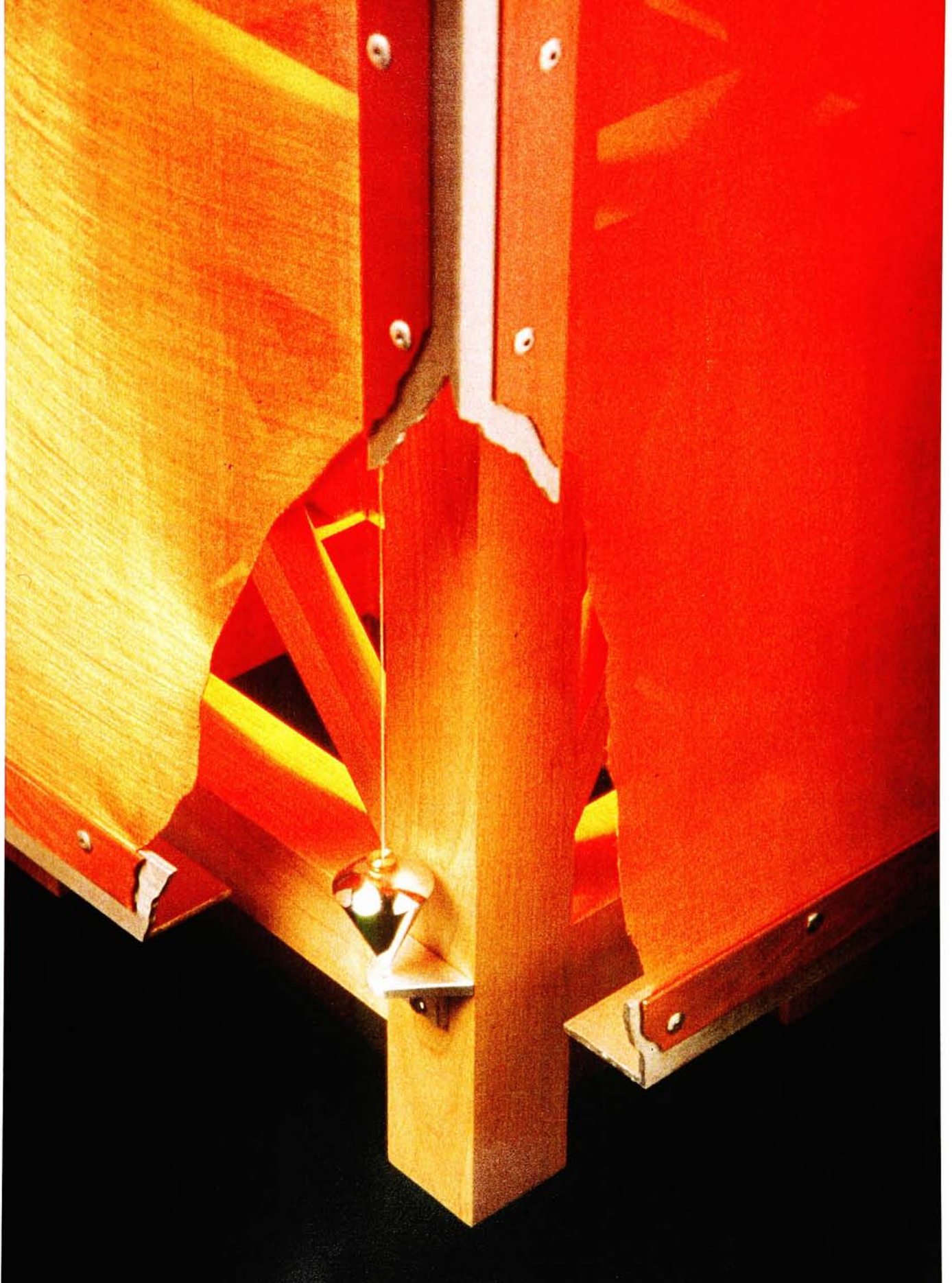


Figure 13

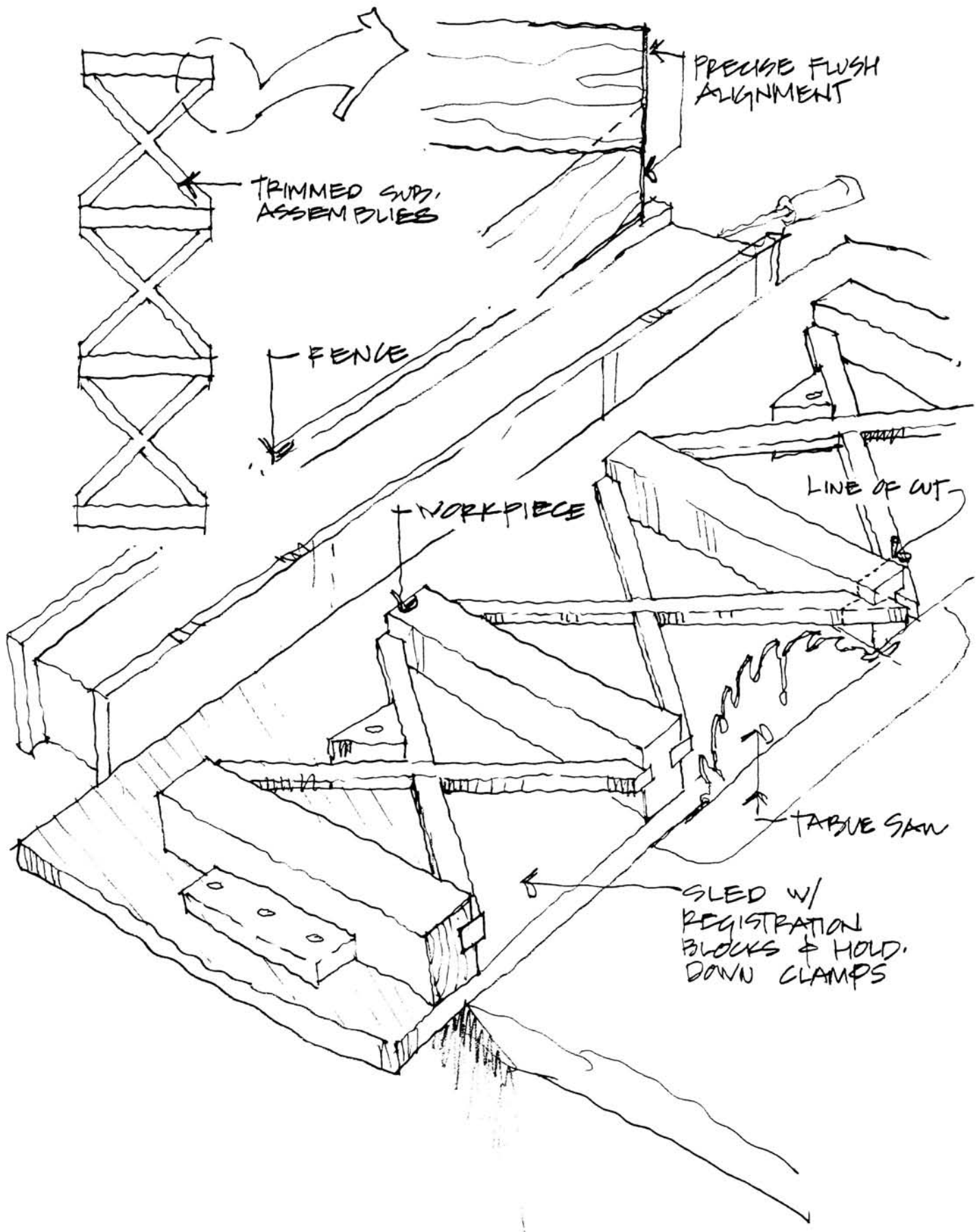


Figure 14

Designed by the engineer DeMontier, this bridge was the first in Paris to be made out of iron. Originally for foot traffic only, it is still in operation today. During the writing of this report and subsequent research, I have been unable to locate a suitable photo for inclusion.

omitted



Figure 17



Figure 18

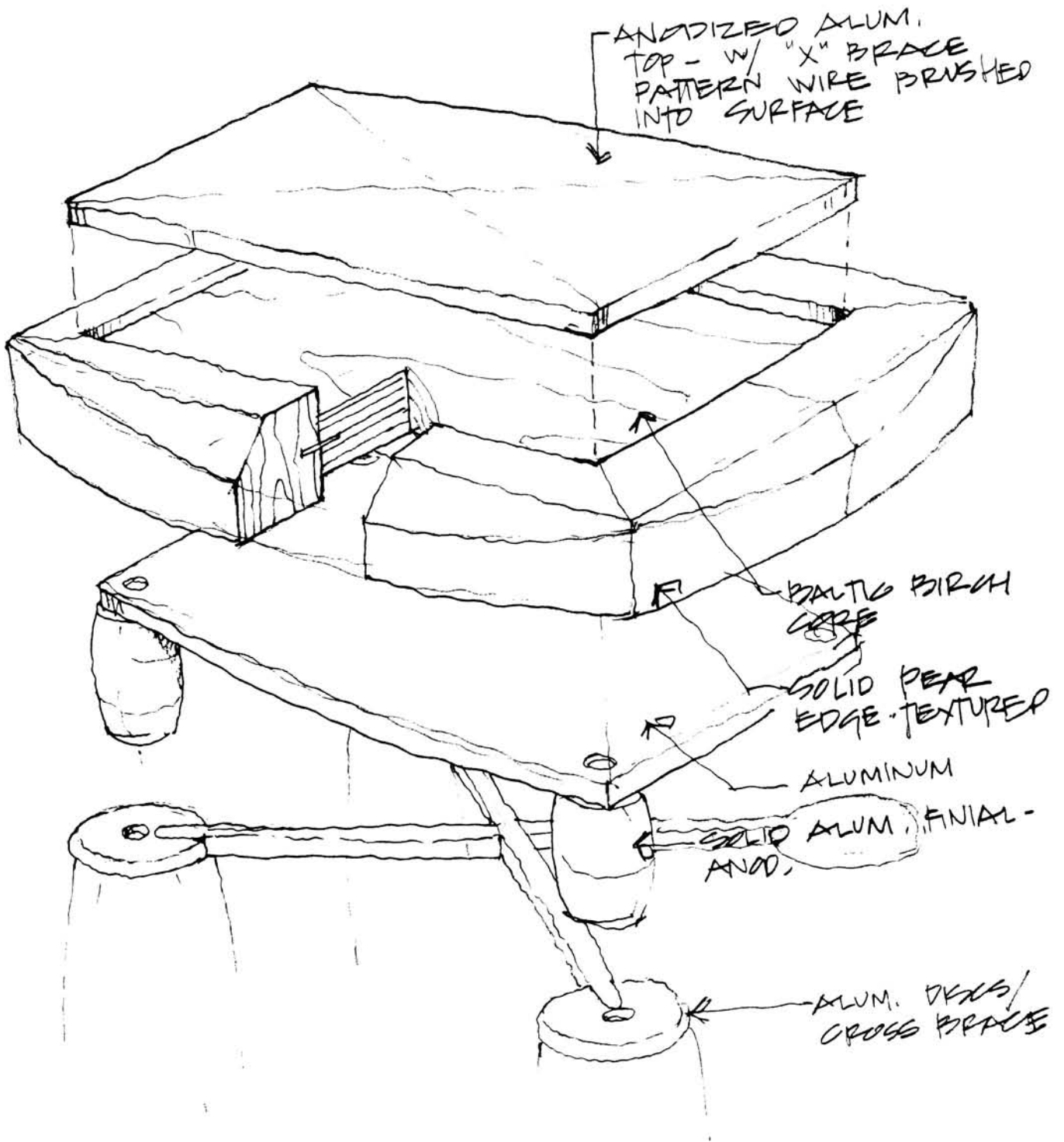


Figure 19

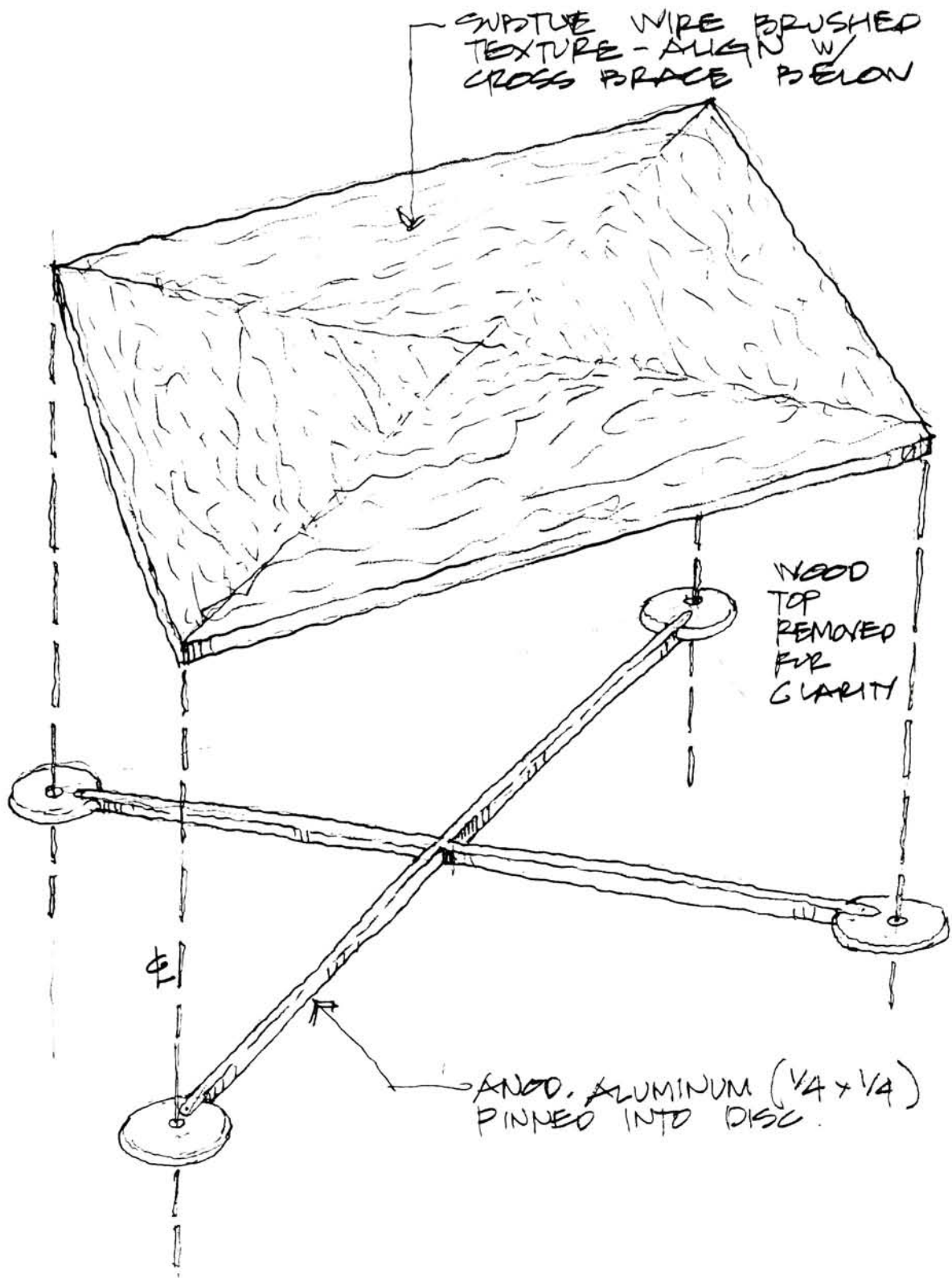


Figure 20

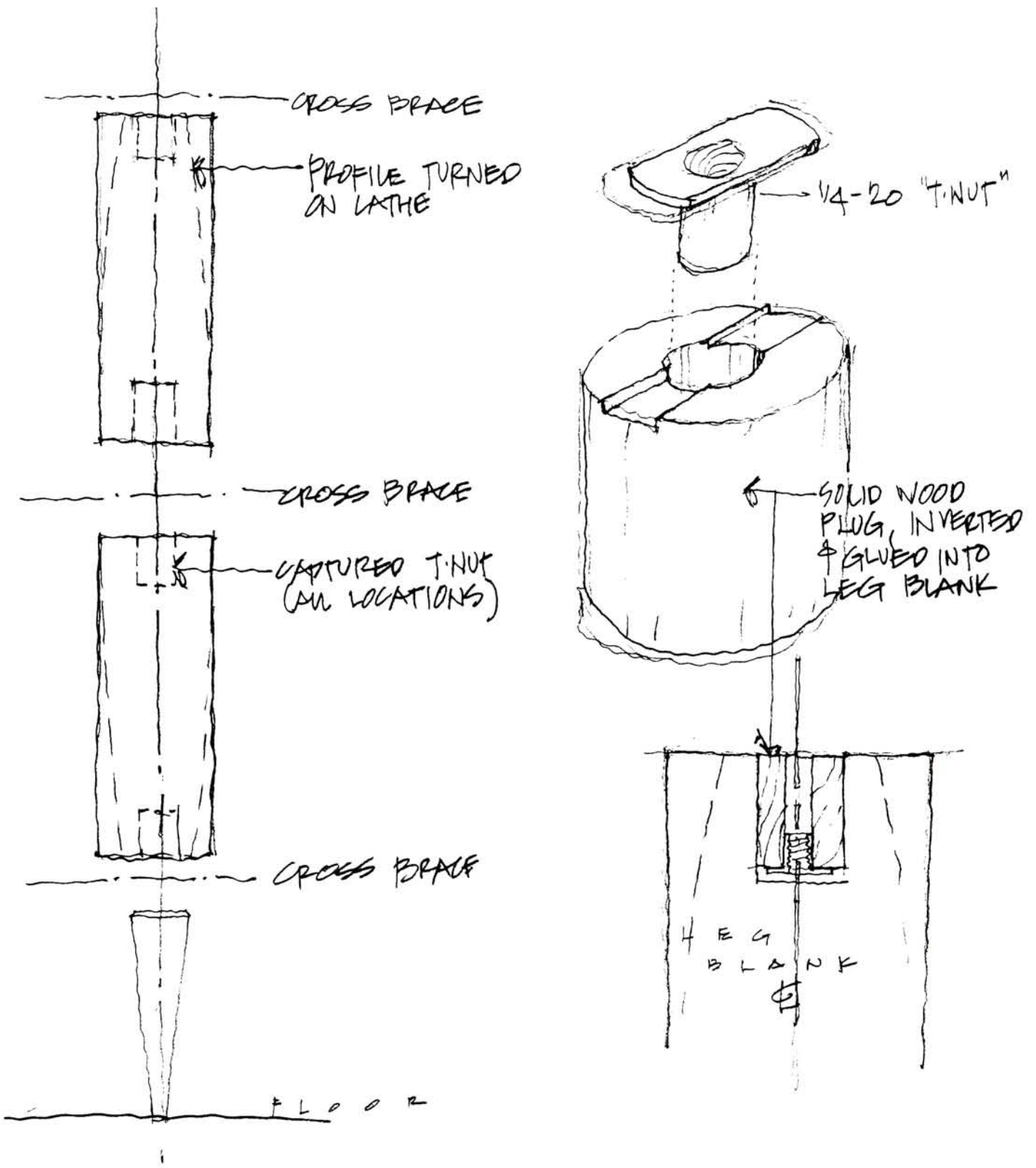
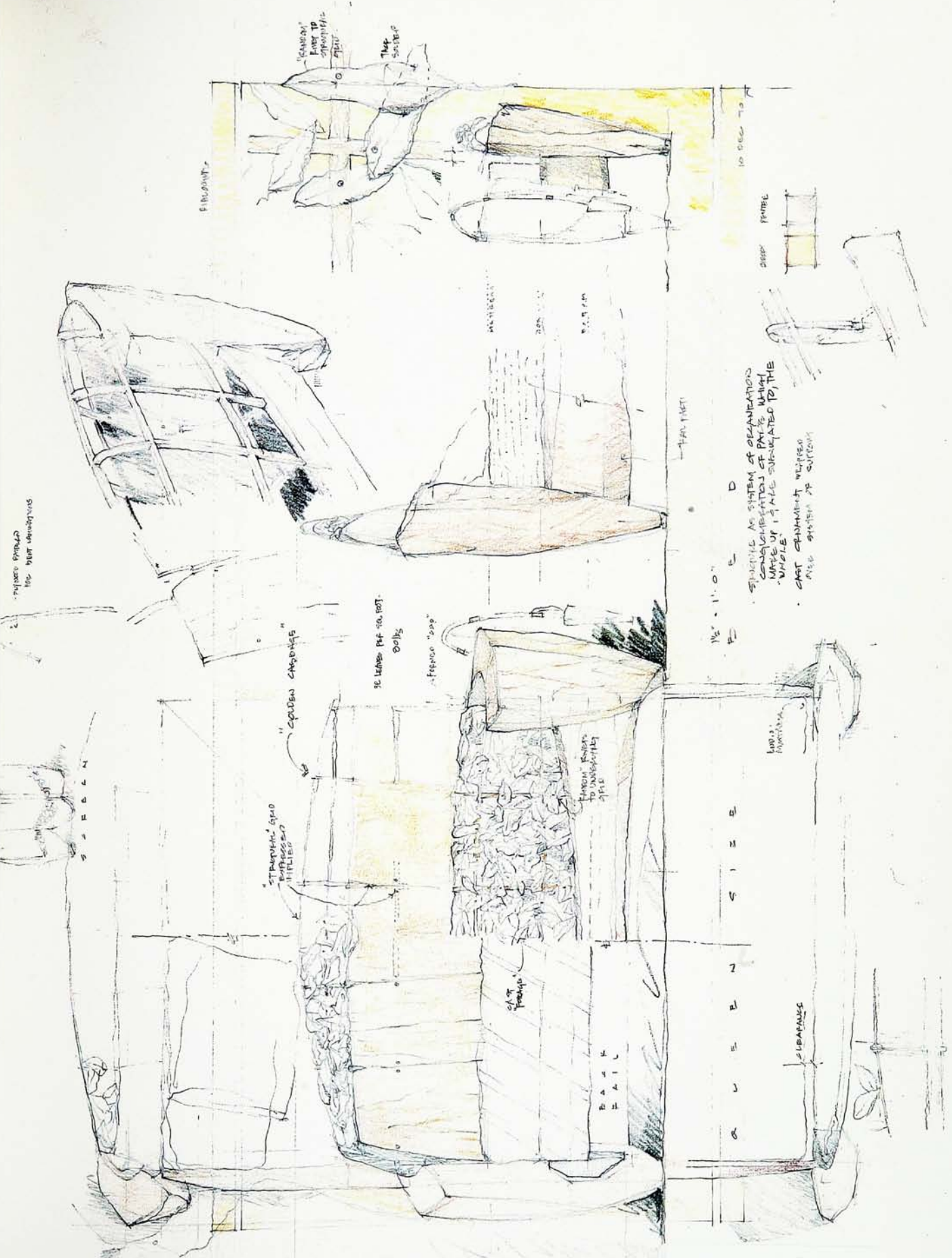


Figure 21



1/4" = 1'-0"

D

STAIRS AS SYSTEM OF ORGANIZATION
 CONCENTRATION OF PAY TO WHICH
 WARE OF 1 FINE SURVEILLANCE TO THE
 WHOLE

CAST CRUMBLING WARE
 ALSO SYSTEM OF SURVEILLANCE

Figure 22

to be forwarded for insertion



Figure 23

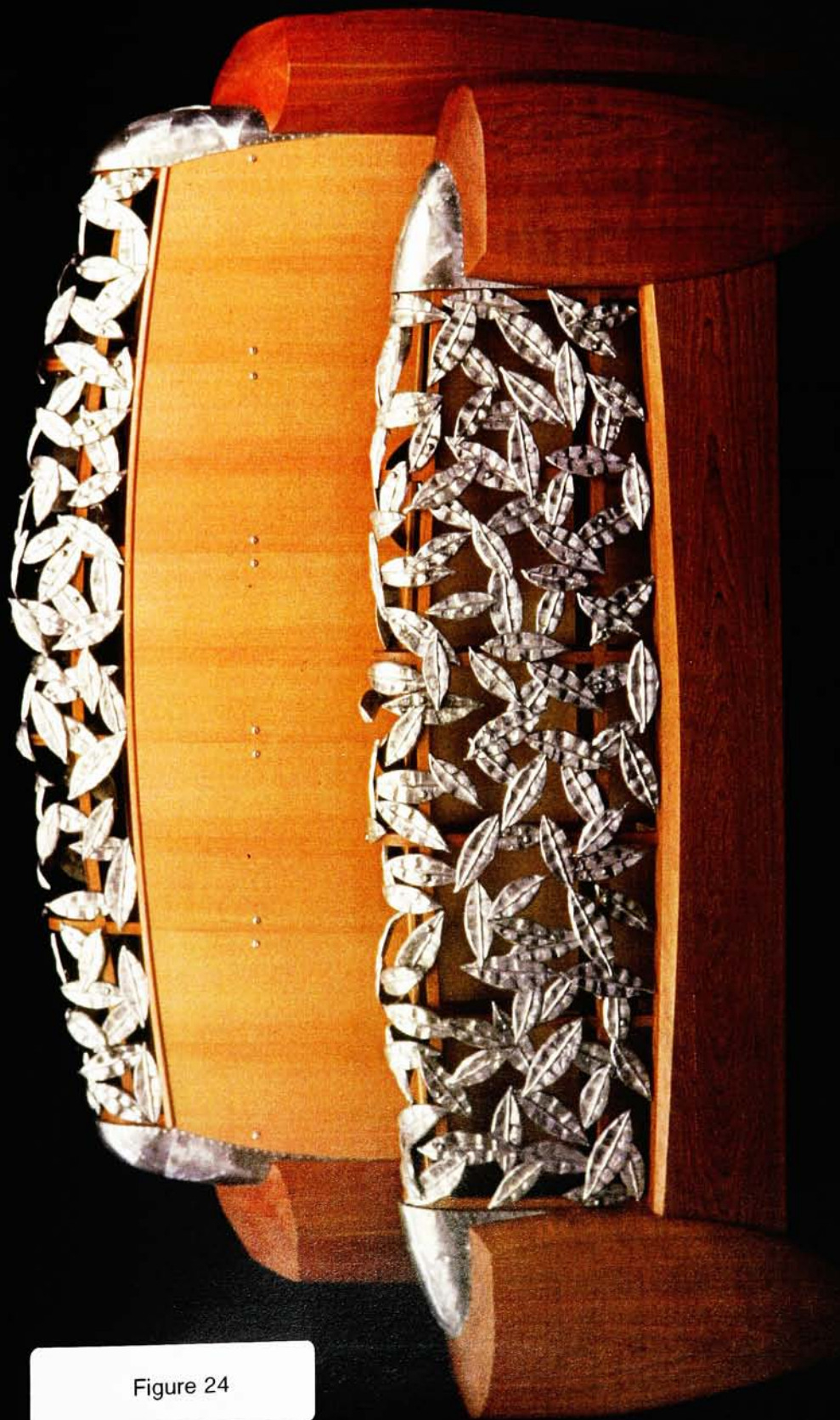


Figure 24

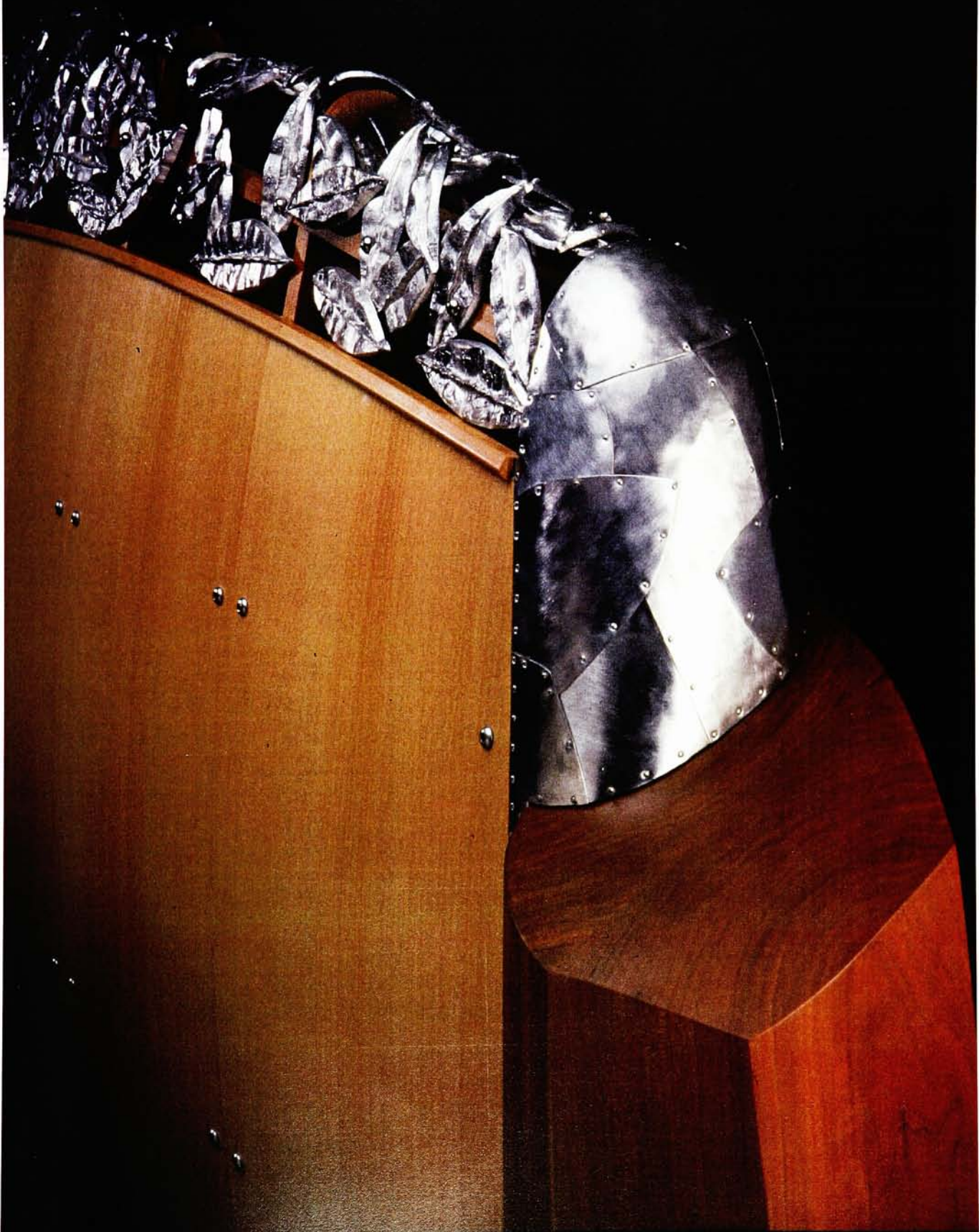


Figure 25

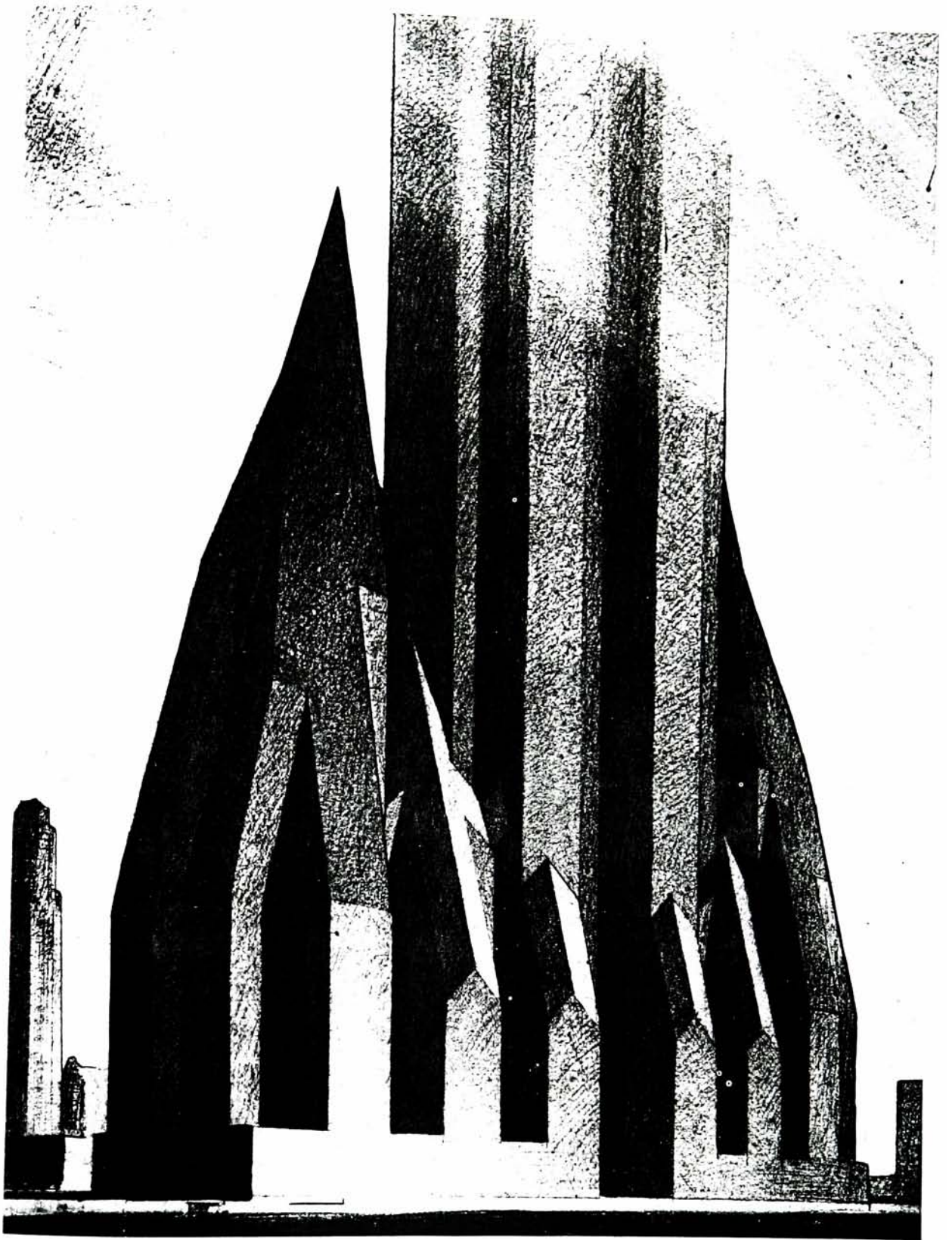


Figure 26

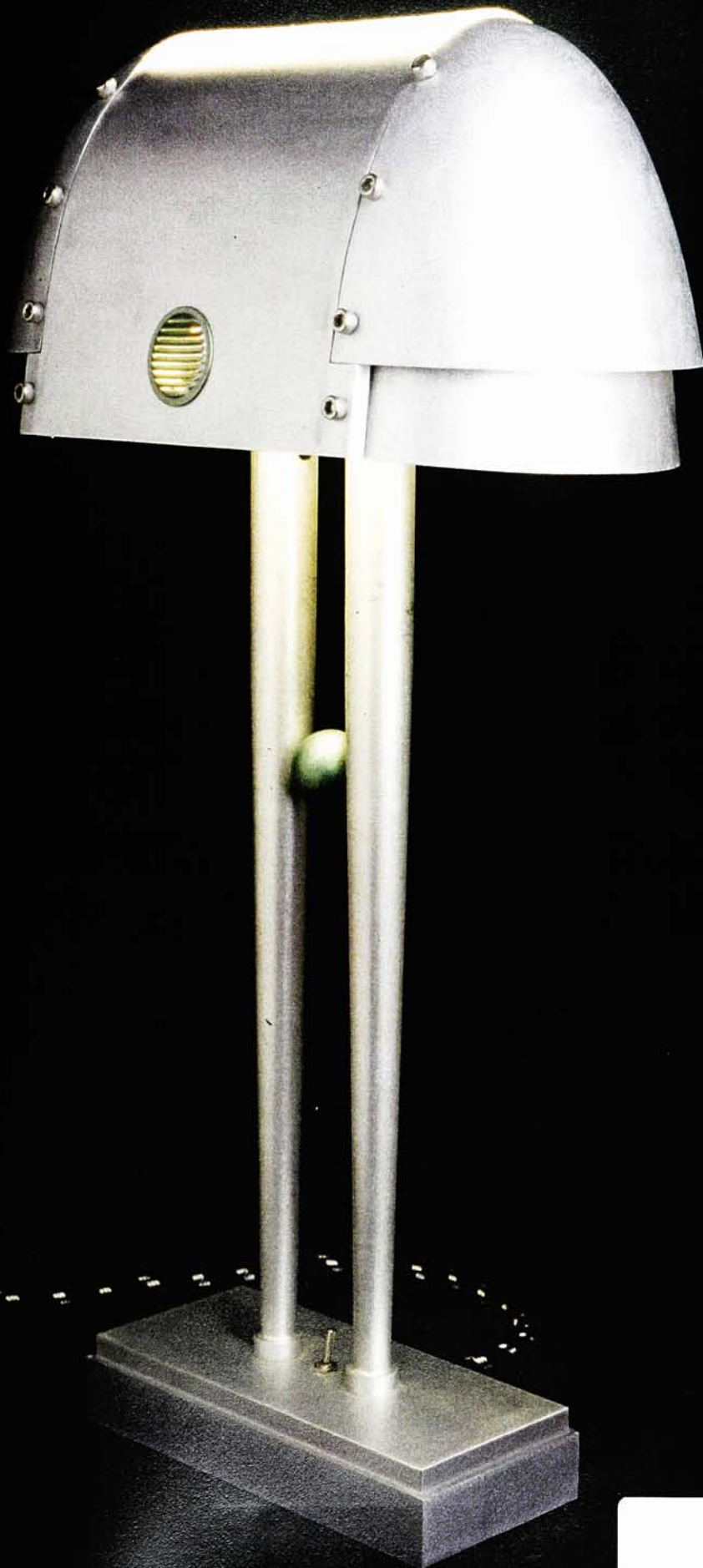


Figure 27



Figure 28

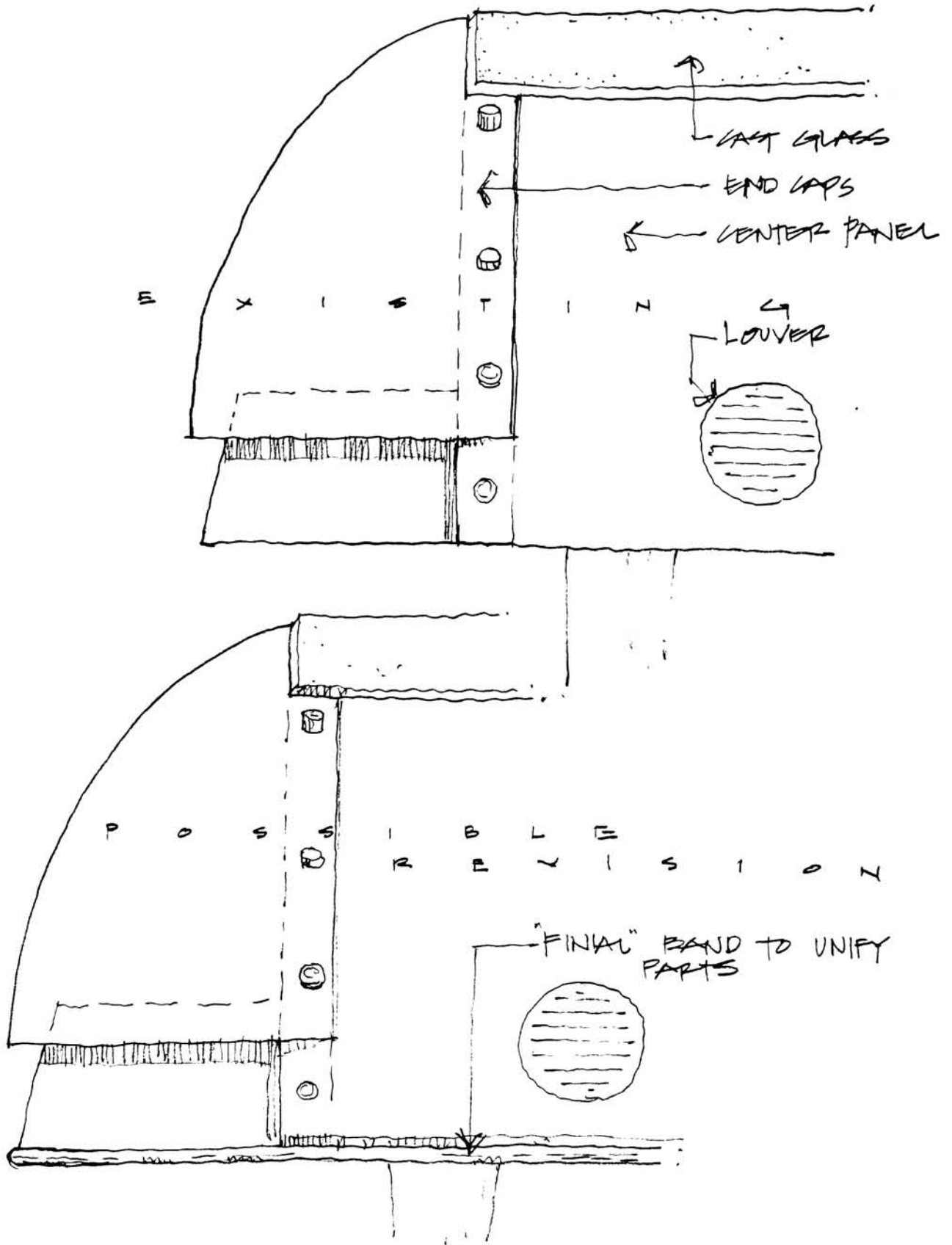


Figure 29

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