A Methodology of Teaching Fundamentals of Art and Design

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ABSTRACT---- ***The focus of this paper is to present a methodology of teaching fundamentals of Art & Design course base on analysis of artworks, mainly paintings, aimed at supporting art & design teaching practice at the foundation year level. The main argument is that this kind of analytical research and its application has not (always) been comprehensive and may not have been guided by sufficient assessment of teaching of the fundamentals of composition.***

The cases here are derived from my teaching practice and research in design studios of the Foundation Studies courses at the School of Architecture and Design and are supported by the students' outcomes in these related studio courses.

The conceptual background of the program puts forward that design develops its theory from practice through the iterative creative process of "thinking through making" as it was demonstrated by the teachers in the foundation courses at the Bauhaus. (Lecanides-Arnott, 2014; Ranjan, 2005).

As a teaching methodology in question, this paper argues in favor of a direct teaching approach to core ideas relating to composition at the foundation year level of Art and Design. This may question educational methodologies concerned with the teaching of the fundamentals of art & design in general, where students are to discover compositional core ideas, processes and application within rather intuitive and indirect learning processes. Although in other teaching methodologies, the elements of composition may be referred to and may be demonstrated in lectures, analysis, projects, processes and critiques, little evidence remains to show how students are consciously aware of their significance and use.

The methodology presented in this paper urges for a more direct process of discovery and assimilation of the core ideas related to composition by the students: as firsthand research and development on their behalf. This research maintains that when core ideas are presented, synthesized and applied at an early stage in art & design teaching, students forge a deeper understanding of composition that empowers their visual thinking processes, analysis capacities, synthesis, self-critique and application.

This research considers the transmission of core ideas related to composition as a fundamental objective in art and design learning and practice. It looks at ways of expanding the findings acquired through the analysis of artworks to notable applications in art & design, where core ideas become the basis for explorations of more complex or rather different compositional structures in diverse media.

The paper also argues that most "significant" artworks are based, whether it be intuitive (visual) or intentional (rational / mathematical), on a relative and proportional relation among the "parts" that constitute the "whole". When examined, the compositions demonstrate an inherent structural complexity comparable with a mathematical relativity among their visual constituents.

Core ideas are presented within an itemized framework of an analysis process. A case is made that the breakdown of an artwork to its essential components will help to produce essential compositional outcomes [regarded as "schemas" or blueprints] that can be used in further design applications and developments.

Then it looks at methods on how to reinvest the outcomes of the analysis in projects that would carry further the understanding and the applications of the acquired concepts, thinking processes and approaches.

Based on the notion of de-construction / re-construction, a case is made of certain possibilities of the use of the outcomes of the analysis as systems to produce novel art & design exercises and projects [new outcomes].

Such a methodology can be developed into a well-grounded and rich set of open art & design teaching approach appropriate to the needs of instructing students at introductory undergraduate levels in art, design and those in preparation for architecture schools; particularly in countries where undergraduate students have had little creative training or insufficient art education at secondary and high schools.

Keywords – Fine Art research and approach, foundations in art & design, art composition analysis and development, teaching methodology, theory, teaching groundwork & practice.

Relevance to Fine Arts & Design Teaching and Practice – This paper makes the case that Fine Arts & Design practice has to be grounded in a deep understanding of the nature of composition and its diverse applications aiming at improving teaching at the foundation levels in these disciplines.

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1. INTRODUCTION

In the beginning it was… ***Passion****!*

How does it tick…!

It was seeing students get involved and passionate about art analysis that encouraged me to pursue in writing this paper. Especially when some went beyond the exhaustive list of analysis passed on to them; as they set out on explorations on their own, finding relations and meaning in the artworks that they were analyzing.

In pursuit of passing on visual knowledge and applied technique in the visual field, commonly referred to as teaching art and design, a teacher generally embarks on the endeavor by presenting materials, giving directions about how to use them and engaging in subject matter with instructions and references related to what is needed to communicate as visual knowledge. "Learning by Making" puts the stress on the creative process. Yet, as the educative system is concerned with learning "outcomes", that in the words of the philosopher John Dewey would be that what is demanded is a "product", rather than a method (process). (Stolterman, 2008).

2. BACKGROUND

The objective of the foundation design studio courses at LAU is to provide students, coming from different backgrounds, with the proper tools of visual thinking, techniques, understanding and the use of adequate vocabulary of the pictorial language, analytical thinking, materials and means of working on two-dimensional and three-dimensional designs. The courses are set to introduce students to basic design concepts and strategies. Students explore basic compositional and operational types of visual organization in two and three dimensions.

Research, debate and applications in the courses remain open to faculty to find the most adequate and appropriate teaching model to achieve the objectives and outcomes at the foundation level.

The questions addressed in the preparation for the foundation courses are:
What constitutes a composition? How does it work?
What are the most adequate mechanisms to pass on core ideas, thinking processes and needed information to students?

Look, observe, analyze and play…

If we are to consider a work of art, it contains, in essence, all the notions of composition that we, as faculty, are to pass on students enrolled in preparatory art & design courses. The choice of a painting as a starting point imposed itself naturally. An artwork, particularly a painting, is a register of all the decisions taken by the artist to its final state. The thinking, the process, visual decisions and technical applications lie within the apparent image. But, how does it all function?

The general plan of the course was set as a journey with a master. Where students would engage on a progression from simple observation, to analysis, then application and synthesis… play…

After establishing a list of artists, the students are asked to choose one artist's work that they appreciate and would like to get to know better. It is important that students select a particular work that they 'like', from those rendered by artists given.

"What is in this artwork that makes me (the student) like it or, at least, interested in it…?" Here the choice of the work is meant to be personal, in order to bring a certain interest on the students' behalf and stir their motivation. The choice implies a certain curiosity to get to know what is in each artwork that makes it appealing.

"Liking" the work of art to be "dissected" and analyzed is an important factor to be taken in consideration. Grounded in the perception of personalizing the task for students can always make the learning more involving; especially when most students are confronted with artworks that they may have never seen before. Furthermore, a general research would be demanded to help situate the work and get to know more about the artist and the history related to the work itself in particular.

The "subject matter" in contrast to the "*subject*", the meaning or the message of the artwork would be addressed in theoretical class discussions and will not be part of the observations in this paper. The concentration will be on the visual aspects of the analysis of the composition as a methodology, to come to grips with the mechanisms of the core elements of composition related to the artworks.

Consider a work of art, as the one shown in Figure 1:

1- For example: Hector and Andromache, 1912, by Giorgio de Chirico.
Oil on panel. Galleria Nazionale d'Arte Moderna, Rome, Italy

Chirico, "The founder of the Metaphysical art movement, His work implied a metaphysical questioning of reality. After studying in Athens and Florence, he studied Germany at the Academy of Fine Arts in Munich, where he was influenced by the writings of Nietzsche and Arthur Schopenhauer. His paintings strongly influenced the surrealist movement, providing inspiration for such prominent artists as Max Ernst, Salvador Dali, Rene Magritte, and Philip Guston."

The student would present the work: what do we see?
The subject matter: a "couple" standing in a surreal setting.

3. THE ANALYSIS – GATHERING INFORMATION

Students are to work with a "good" reproduction of the work. The breakdown of the elements found will be recorded and complied.

The guideline - (annex A, p.30) is set to give students a systematic approach to an artwork's deconstruction to its simpler constituents through methods of linear and tonal analysis, mainly tracing, leading to the extraction the basic visual compositional elements.

A simple and direct approach: reproducing what one sees:

2- Quappi in Pink Jumper, 1935, by Max Beckmann (1884-1950) of the Thyssen-Bornemisza Museum, Madrid.

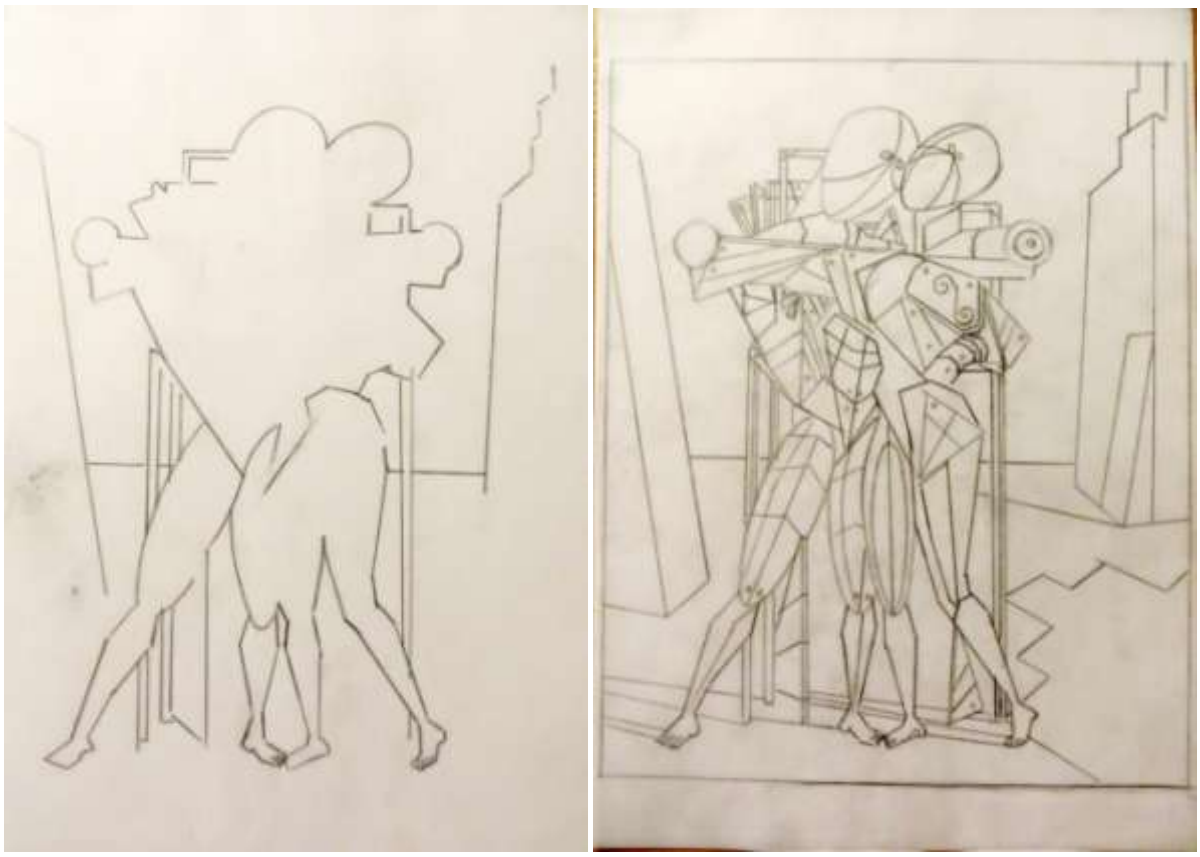
Color, as a core idea
Students are asked to reproduce the colors used in the artwork (fig. 2, p.6), using gouache paint, and arrange them in a chart according to basic notions of color:

- Hue (in relation to the chromatic color range)
- Value (in relation tints, tones and shades - brightness)
- Chroma (in relation to color strength and saturation in reference to a grey of the same value - colorfulness)
- Other, cold / warm

Students, at this point, have already been introduced to notions of color and have worked on reproducing color gradations. They have finalized their own color wheel, with tints, shades and tones, using only the primary colors, black and white. Thus, after reproducing the colors used in the artwork, they are able to organize them in representative charts.

The next analysis research core ideas are **outline and contour** as fundamental compositional elements. This linear analysis helps to further examine the notion of outline as a different drawing concept than the more encompassing and detailing notion of contour. Expanding the notion of seeing from inside of a form to the outside, or vice versa, that contour drawing can cover, hence, putting forward the choice of the artist of certain lines and their physical and technical treatment in artwork addressed. It also allows students to see the composition as a *whole* within the limits of the borders of the work.

At this point, a special attention can be addressed relating to the notion of **proportions**: the relativity of the size of the parts in relation to the height and width of the artwork, as well as, to the subject matter treated and the special arrangements used.



3- Student's outline and contour tracings of Hector and Andromache, by Giorgio de Chirico.

Students at this level are not expected to be able to carry on this kind of analysis in freehand drawing. Although an introductory course in drawing is part of the foundation year curriculum. To render and explore the outline and contour notions, students are asked to trace the outline and contour using tracing paper over a good reproduction of the artwork.

4- Henri, Matisse, Dance - 1910, is a large decorative panel painted specifically for the Russian businessman and art collector Sergei Shchukin.

5- Stuart Davis Hot Still-Scape for Six Colors - 7th Avenue Style, 1940, Boston Museum of Fine Arts

The outline, then contour tracing will be useful at many other stages of the analysis, as in the case of exploring the core idea, the compositional element, of **basic shapes**.

It seems natural to look for the basic shapes inherent in the elaborate contours, as they can be seen as structures upon which the artist had composed. When details are overlooked, students can trace freehandedly the simple shapes that they see significant. This helps in understanding the overall positioning of composite shapes and masses. In addition to the structure, this also gives hints of special dispositions and proportions, allowing students to note the larger configurations of the composition.

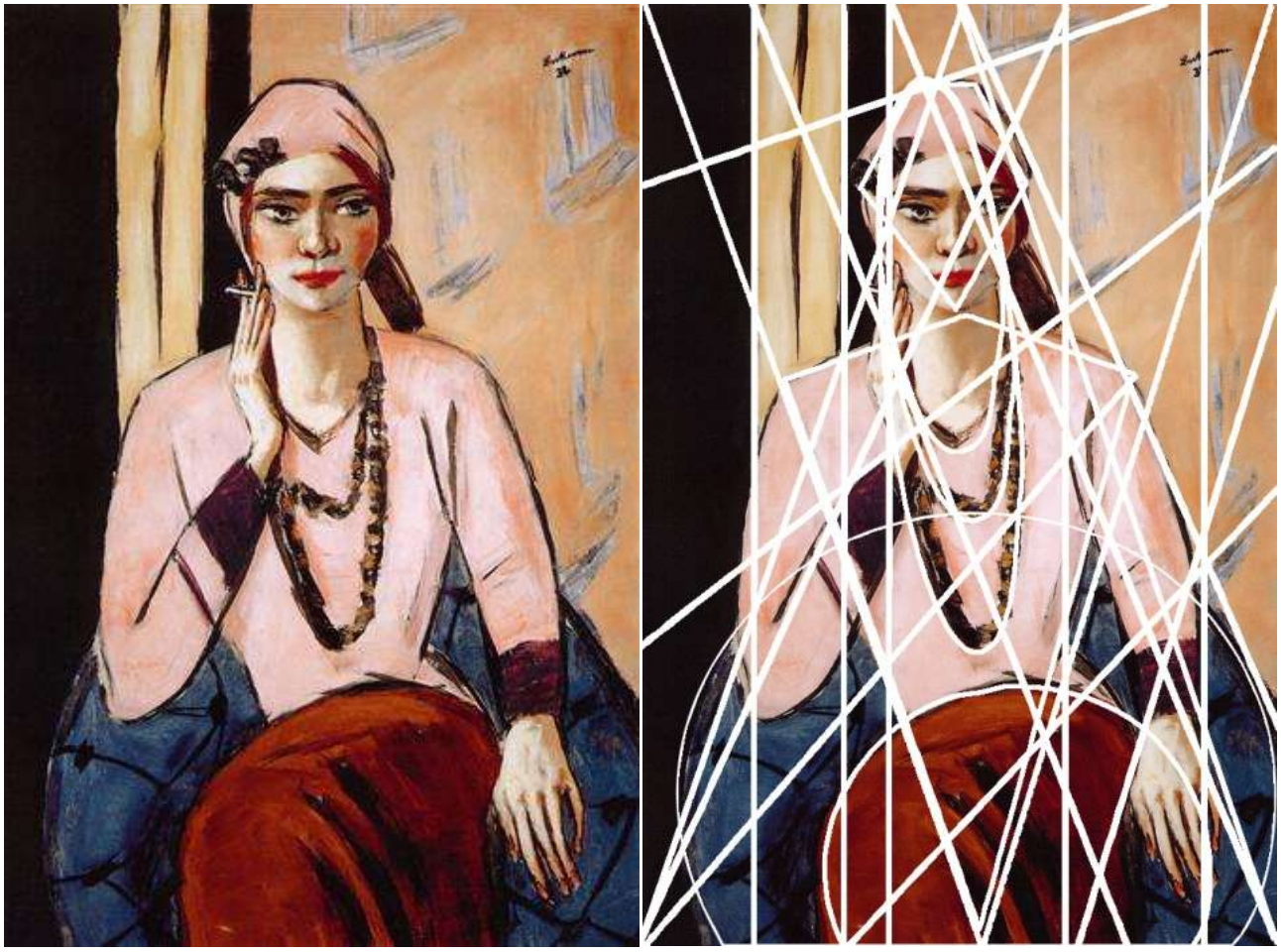
The basic rendering of shapes would depend, of course, on the nature of the work examined. It may support making visible the rhythmic distributions of shapes and could lead to revealing certain repetitions in the general organization of forms. Even in some cases, the result of the analysis would reveal what could be considered as underlying motifs, repetitions or variations in the formation of the composition in general.

Students can also use the **basic shapes** approach to explore the core idea of **light,** its use and its distribution in the artwork. That could be achieved by depicting the tonal coverage of light, dark or tonal gradations of the shapes and render the diffusion of light used in white, gray to black. Technically, this can be done using any dry marking material as pencil or paint (gouache).

The analysis of the core idea of light allows considering the use of light as a compositional factor on its own, as it may reflect a "real" lighting situation or not. Furthermore, some artworks don't even address light as coming from a light source. In any of the cases, the discoveries will, at the same time, mend the way to other compositional notions such as balance that will be addressed separately.

It seems natural at this point to reduce the free handed shapes drawn from the artwork to their geometric essence, which constitutes the next core idea of: **geometric shapes.** Thus, adding to the understanding of how the work is constructed in its simplest form. Students will endeavor to trace the inner or outer most probable geometric shape that can be depicted within the basic shapes that they have already depicted.
This helps students to become aware of and appreciate form and shape in relation to their geometric counterparts. The tracing will also reveal how geometry plays a structural part in conceiving the composition, as complex or simple units, at the same time, disclosing references to proportions and spatial dispositions. This analysis provides a clearer vision of the origin of the **basic** shapes, whether they are rendered and based pictorially on the "real" as observation or invented by the artist. Finally, this reduction would be a visual appraisal of the general geometric composition, independent of the relative meaning or significance that the subject matter may carry.

At this point, the students are ready to explore the core idea of **structure** of the composition. This could be achieved by the simple division of the work to its main structural lines observed as dividers of space and divisions suggested by the shapes in the work. The lines traced and extended would refer to the *visible* structure. Yet another layer can be added to this analysis or done on a separate sheet regarding the *invisible* structural elements in the composition and referred to as the core idea of **force lines.** These lines are the result of tracing the visual connections of what could be considered as significant. The shapes, lines or points that visually link together on a trajectory**.**



6- Max Beckmann, Quappi in pink, 1920 - Structural lines (visible & invisible)

This concept refers, from a certain point of view, to perceptions by Cennino Cennini as he indicated that the painter renders what is invisible visible. The painter is capable with "imagination and skill of hand, in order to discover things not seen hiding themselves under the shadow of natural objects, and to fix them [or give them shape] with the hand, presenting in plain sight what does not actually exist".

These visual structural connectors or dividers can also sometimes result from apparent light and dark juxtaposition, motifs, colors or surface changes and treatments; where they constitute visual force lines. Once connected and added to the visible structure in the work, they would complete what could be considered as the structuring element. Of course, as mentioned earlier, the geometric shapes findings can add to the understanding of the complexity of the structure as they are an intricate denominator the construction of the whole.

Surface changes and treatments could also be noted in a separate analysis on different levels depending on the nature of the work in study – such as: understanding the **transparent and opaque** treatments in the works, if it applies, as well as **textures** and other notions related to color such as **cool/warm or surfaces, forms… motifs.**

This leads, at this point in the compositional analysis, to the complex core idea relating to **Balance**. What constitutes balance in a work? Is the work balanced, how? Different means and concepts could be addressed and demonstrated, using adequate linear or tonal analysis to gain knowledge of the notion of balance in artworks.

What are the major divisions of the picture plane itself and in which proportions? Whether balance is achieved with the use of color, line, space, mass or light values… While also, considerations of the "weight" of the parts in understanding the balance in a work may be addressed.

4. INTENTIONALITY

The recurring question that comes up as these different core ideas, relating to composition, are examined and recorded, is whether the artist had thought of all these notions and had intentionally put them in action? This question may remain rhetorical in essence as what counts finally is that they exist and shape the specific composition of the artwork.

The gained knowledge of the analysis about the artworks themselves in addition to the visual thinking processes that are inherent in the students' learning is measurable at this level.

Yet, once recognized, this information can be reinvested in the teaching methodology. The tracings and the visual notations of the findings can be considered as **schematic data** to be built upon and invested in new projects.

Once the outcomes of the analysis are considered as *significant intelligence* arising from the artist's concrete visual production, they can be used, in part or as a whole, as **blueprints** to further explore the core ideas - of structure or outline & contour, for example.

5. APPLICATIONS

One of the first exercises based on the core ideas of **outline and contour** aiming at transferring two-dimensional information to the third dimension could be a construction of a **low-relief** of the whole artwork or a section of it, using paper and cardboard. Here, students are to consider the particularities of the shapes they have traced and the possibilities of their positioning in space. The effects of light would also be a subject to be considered. **Space and light** would become the main concerns addressed in such an exercise.

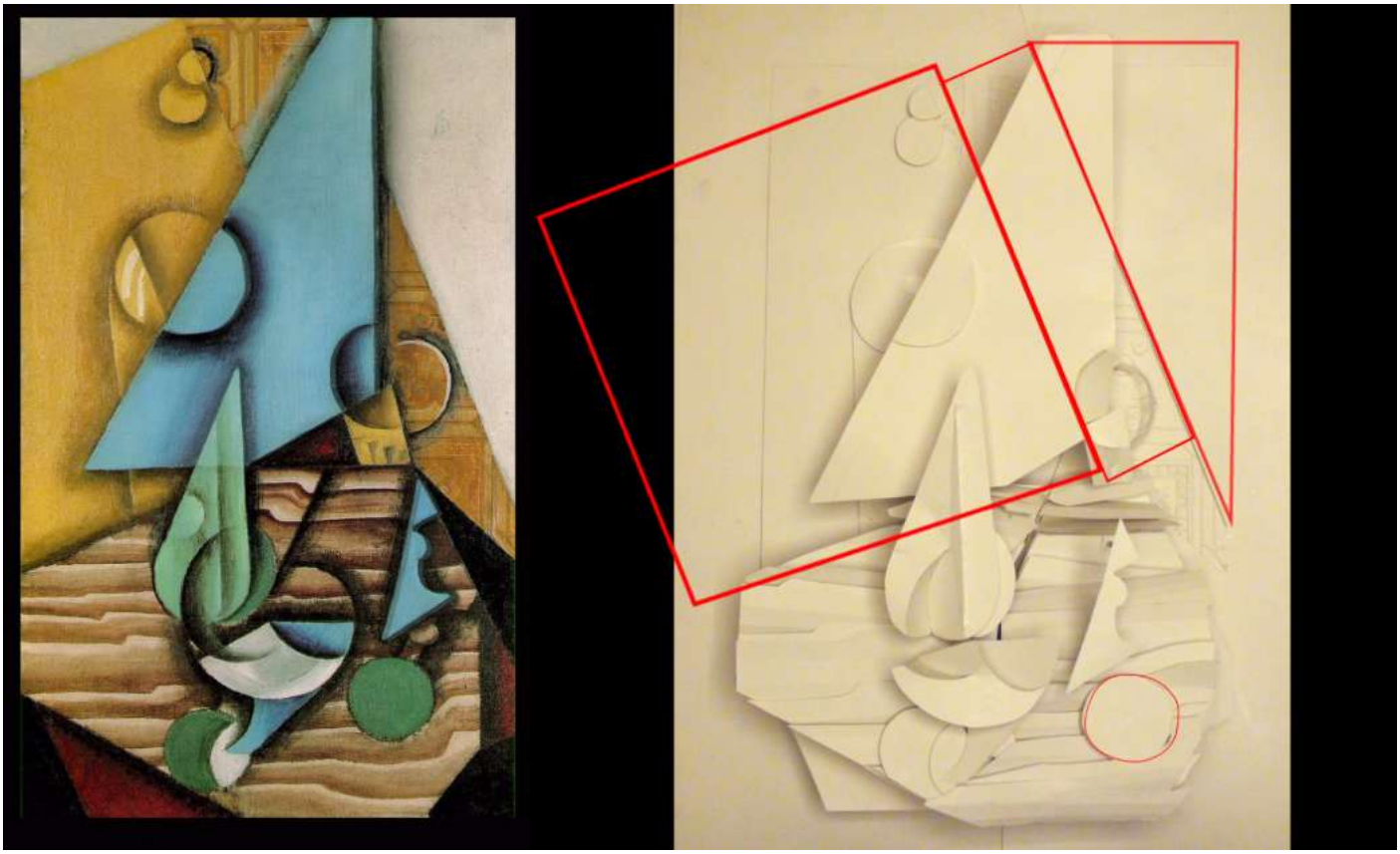
Yet, at the same time, this would presume an understanding the pictorial space depicted in the painting that is essential to project it in the third dimension. The reading of space with its fundamental spatial constituents begins with considering the limits of the work depicted, from the utmost point in the background to that of the closest in the foreground. Situating a "horizon line" level helps situating points in space as perceive in the work. This positioning is essential as it designated the visual "space" within which the shapes and volumes are to be placed physically. The colors as well as the values of the shapes in the artwork would also become helpful in initiating the spatial transfers to the low-relief construction.

Other core ideas, which become necessary to visually and physically evaluate, are those of **proportions and deformations**. As the shapes are considered flat in the two dimensions, coming from direct tracing, once they are to be positioned in the third dimension as volumes, they have to be proportionally modified according to their inclinations and to their light modulations when transferred. The interrelations among the parts will always demand modification of the original shapes traced to arrive at the "final" and "proper" shapes that construct the low-relief.

Negative and positive interplay of shapes has also to be addressed especially to weigh the importance of the details and decide how they are relevant to the construction within the "shallow" space that is being constructed: whether they are high or low in relation to the picture plane.

The main objective in such an exercise focuses on the visual understanding of the position of the shapes in space in relation to the picture plane itself, with significance relating to the proportional deformations of the shapes regarding the point of view, light, its effects and its modulations.

7- Hector and Andromache, 1912, by Giorgio de Chirico – student's low-relief



8- Juan Gris, Bottle and Glass on a Table, 1914 Student's low-relief, and choice of 4 geometric shapes

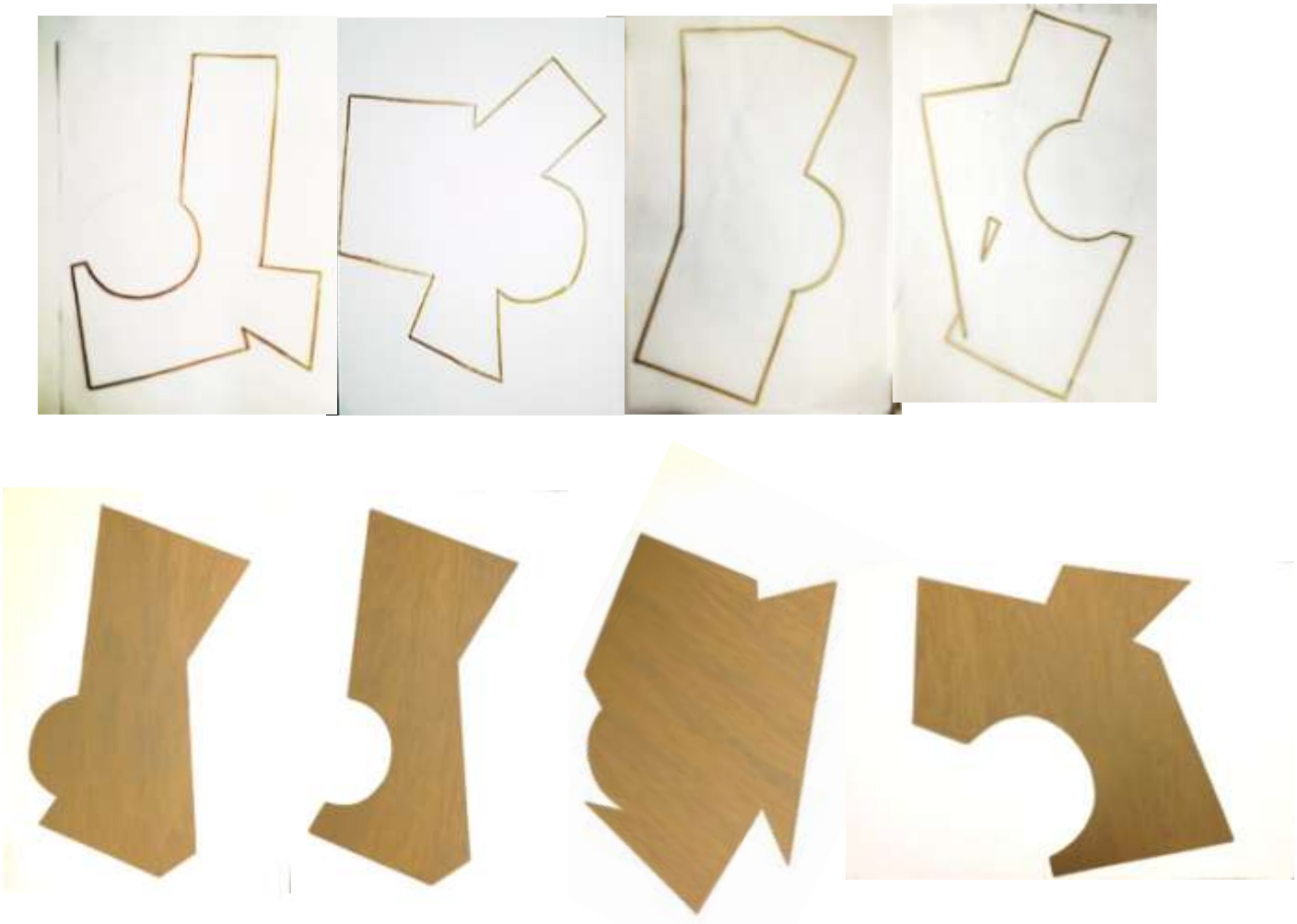
Particularities of Shape

First phase:

Students would draw out of the artwork four basic geometric shapes: a Square, a Rectangle, a Circle and a Triangle. These would be used to establish the outline of a "diagram", a base plan. Students are to merge these basic shapes in an "interesting" combination. The shapes may overlap, combine, intersect and may include negative spaces with the objective of using them all. The trials are recorded as complex layout possibilities.

First, students get to examine the resulting shapes of straight-forward combinations. Then they are asked to consider their constituents: the *summits*, as interception points of the lines, the *segments* as possibilities of these lines in space, the *negative and positive*s spaces formed within and around the shape.

The objective is to get the students to feel at ease modifying shapes. Through these deliberate precise changes, the shape would become a "subtle" unit sensitive to any minor modifications at any level. Students register how the manipulations of the components affect the "fine tuning" of the shape and "see" its tensions and expression at "energetic" levels.



9- Examples of "Floor plans" arrived at by combing the 4 geometric shapes taken from the artwork.

Particularities of Form

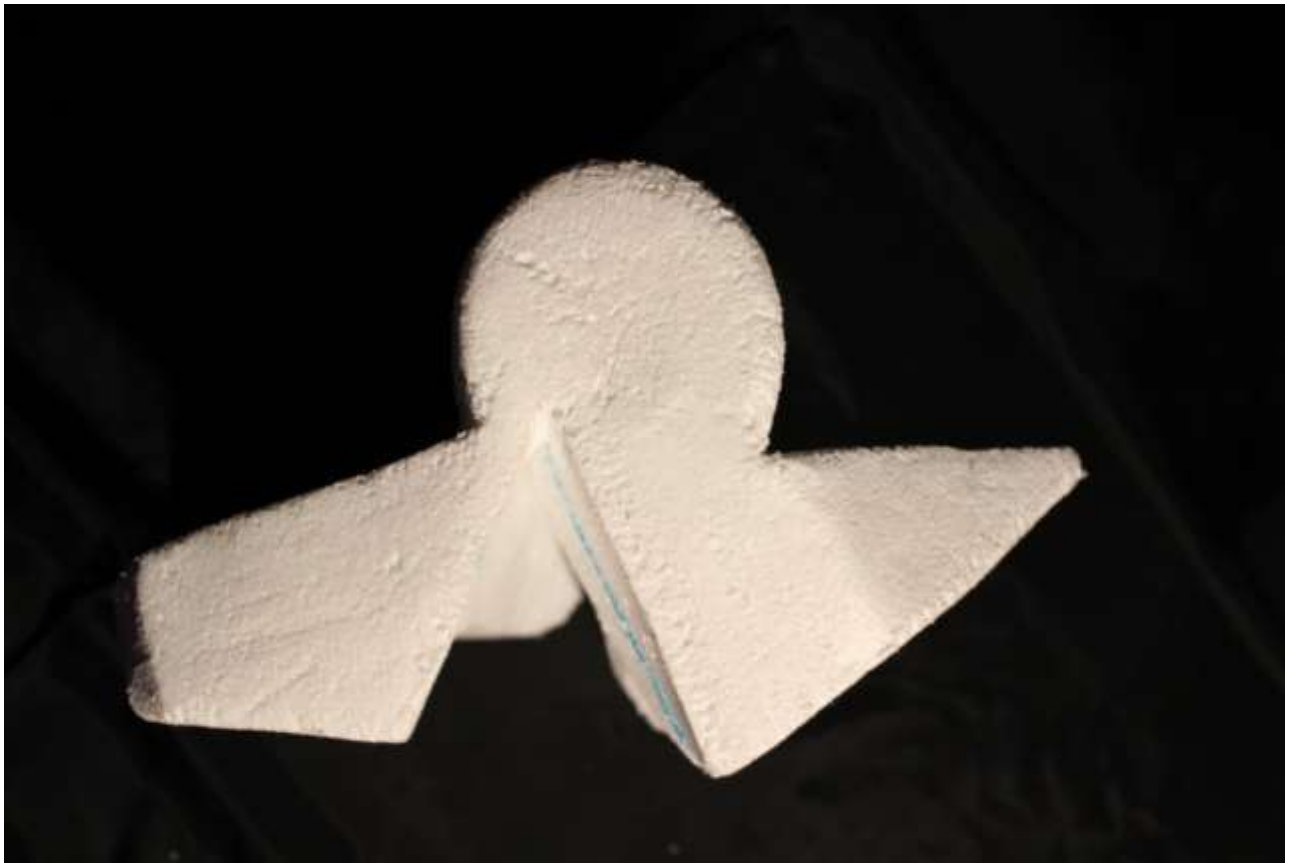
Second Phase:
One *expressive* two-dimensional shape would be chosen as a layout. It is to be considered as the blueprint cross-section plan for a future projection in space.

Foam blocks, as sections, allow making changes and modifications gradually at each stage of the projection process. Students were asked beforehand to research: different natural form systems. They would use at least one of these systems in their projection process.

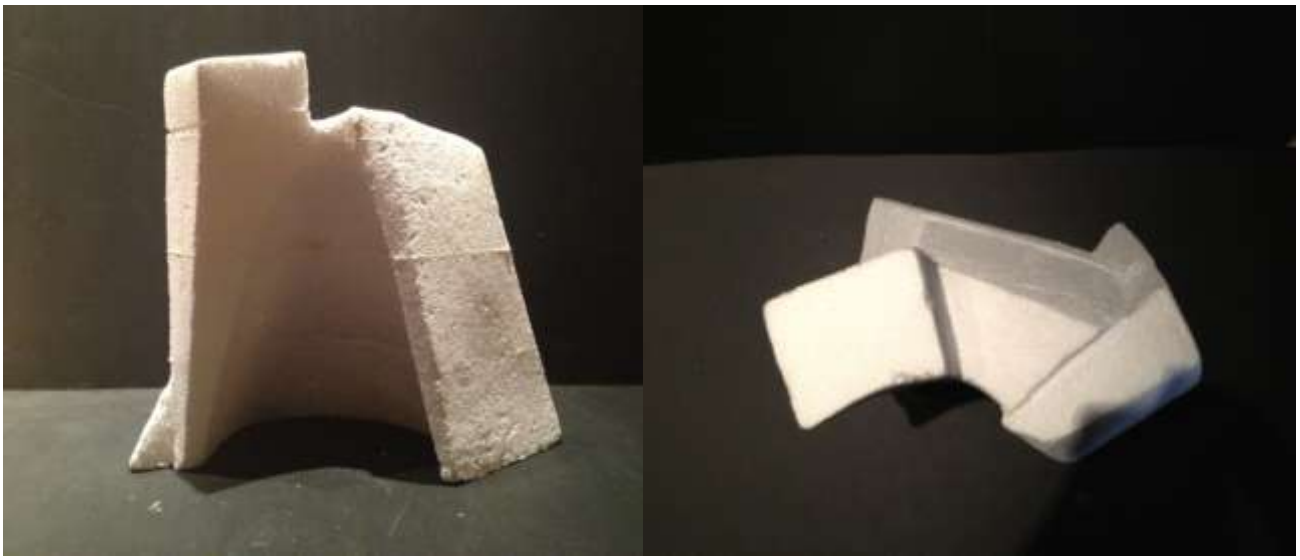
Guidelines

- Thus the development of the general form in space is to be using *natural systems*, such as: **Polygons / spheres/spiral / vortex / helix / branch / meander -** [natural systems relative to the research concluded]**.**

These systems function as directives to help shape a mental projection of forces in space, a framework for the students to proceed. Sketches and drawings help shape decisions to be taken. Once the general projection is done, special attention and thought have to be given to the details and surface treatment to finalize the model. Here also, references can be drawn from the original artworks.



10- Top view of "protrusion" arrived at by combing the 4 geometric shapes for the artwork.



11- Different views of "protrusion" using the circle and vortex system as negative space inside the structure.

12- FERNAND LÉGER, Les disques dans la ville, 1920

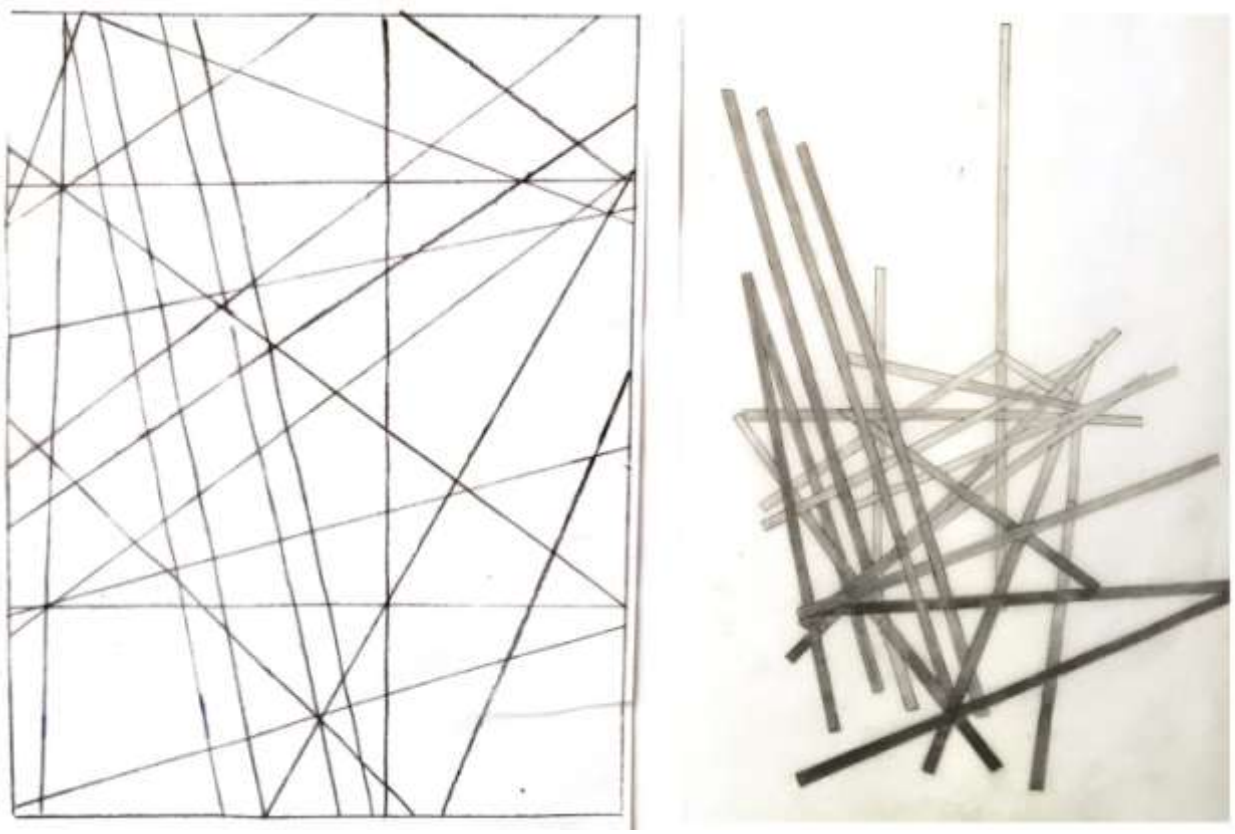
Examples of "plans" arrived at by combing 4 geometric shapes from the artwork.

6. STRUCTURE

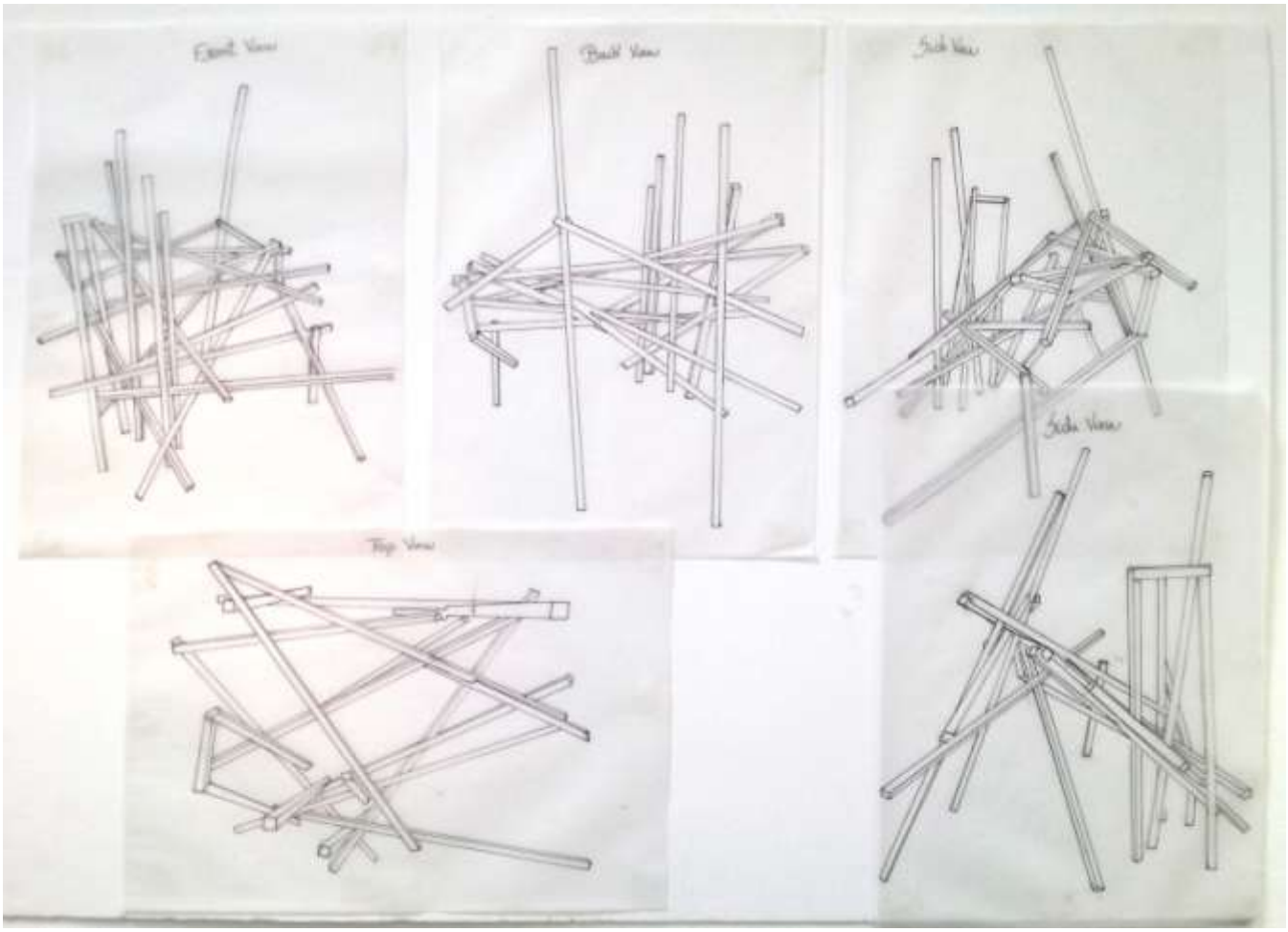
Another example of reinvesting outcomes of the analysis is an exercise relating to the core idea of structure. The focus would be on the structural lines that are inherent in the artwork: First, the main visible structural components and second, the suggested relational structural elements in the artwork. Repetitions, rhythms, and various intervals spans, light and dark division would eventually become clearer as they connected and are recorded. The structure becomes obvious and readable enhancing the perception of the artwork as it makes visible intimate correlations and dynamic interrelations among aligning parts.

Once established, the layout is architectural in its essence, especially if it is considered as a structural design for a model. Here also, guidelines would be necessary to guide the scope of applications.

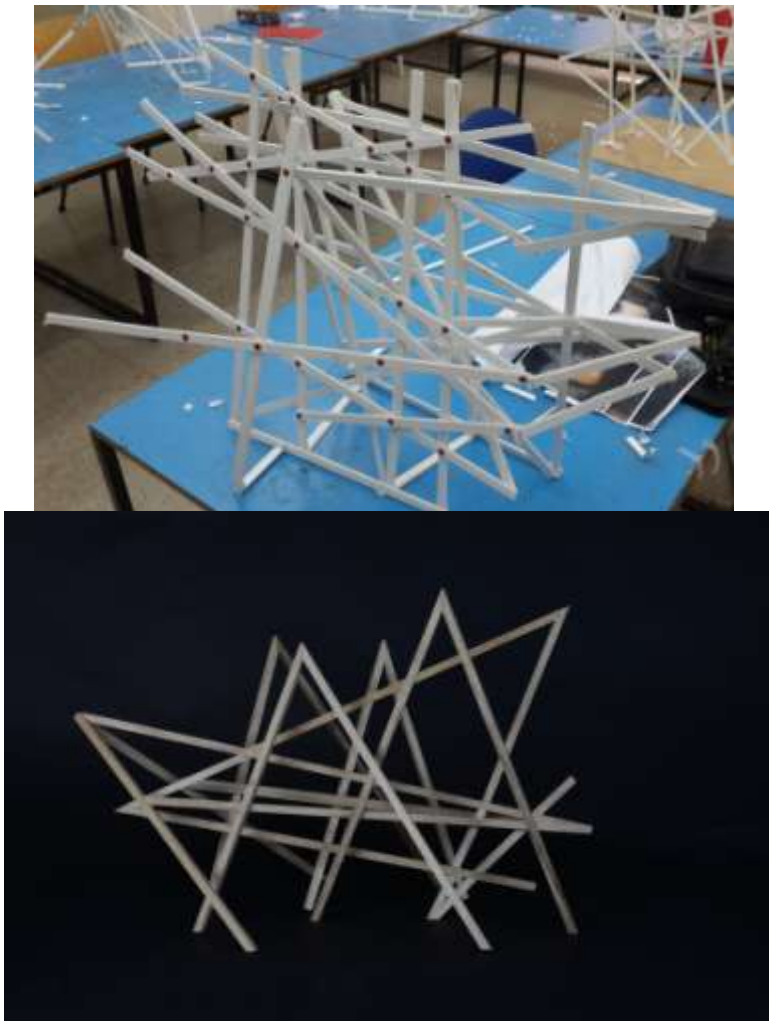
With the idea of keeping the structure readable form one point of view at the final stage, the transposition of the structure from two-dimensions to three-dimensions goes through different transposition stages. Foam-board segments would be aligned in the plane of the structural lines traced. Then they would be raised in a relatively shallow space, where they have to relate and support each other. Their placement in space is open. Then the model would be reconstructed by replacing the foam-board strips by wood segments. At every phase, drawing is a constant in helping form an understanding of structure and its developments. (fig.13, p.19 & fig.14, p.20)



13- Student Structure analysis and projection drawing



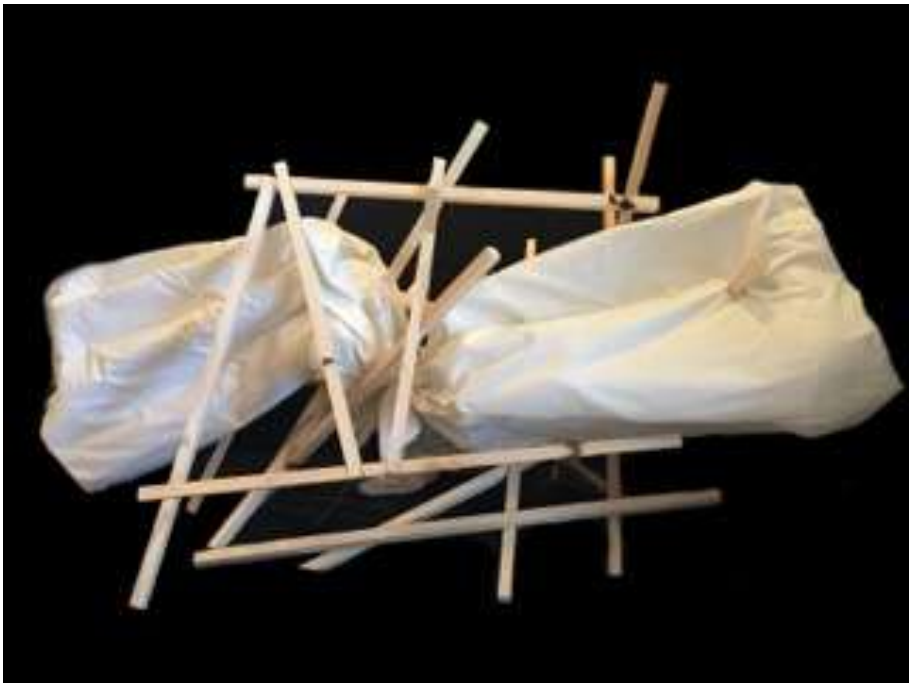
14- Student Structural analysis and projection drawing

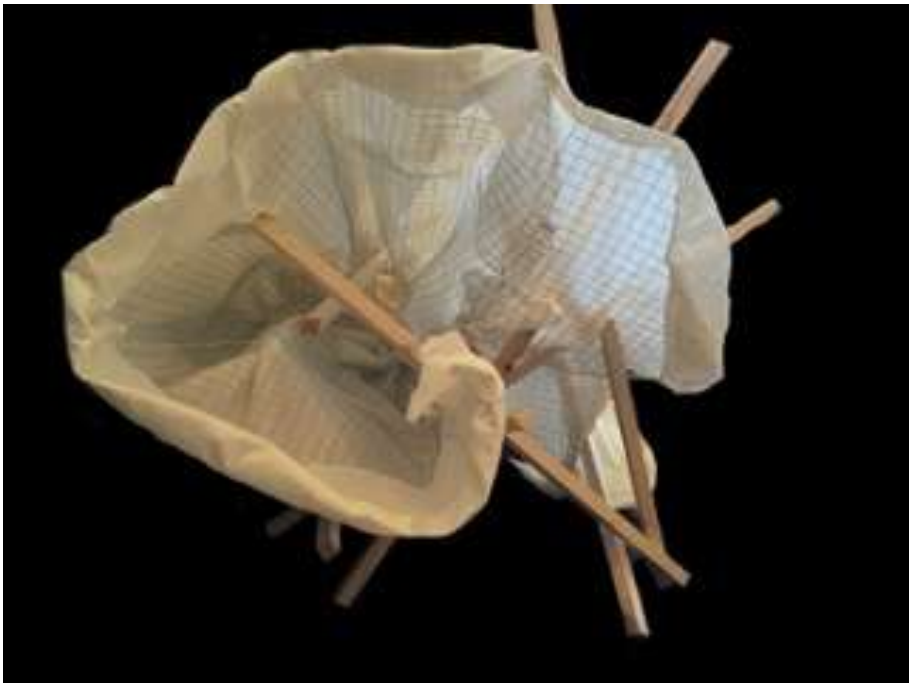


15- Student's foamboard model and final wood model

Further developments of this structure can be planned to include different materials as inspired from the model itself or the original artwork.

In the example below, students add a "Skin" as a soft form to the wood model.





In the example below, students explore the whimsical idea of looking for the "Animal inside" as inspired form the wood model by adding a moving mechanism to the structure, as a further development exercise of reinterpretation.

This methodology demands an individual investment in research and development on the student's behalf.
The exercises and applications, cited above, are examples of ways to reinvest the outcomes and awareness arrived at through analysis by students. Other parallel exercises could be conceived.

The development of assignments to reinforce the learning of fundamental core ideas relevant to composition remains open. The objective continues to be the process of discovery and assimilation of the core notions in an active and direct creative process that allows students to synthesize their visual knowledge and scholarship.
It is possible to conceive, as a next round, exercises to apply what the students learned about composition. Such as analyzing complex floor plan drawings or apply the same exercises, terminology and observation skills learned to look at existing architectural works in plan and three dimensions.

7. MATHEMATICAL RELATIONS

Observations were made by students relating to the relative visual and proportional similarities found in the outcomes of the analysis engaged. As the shapes and forms in the artworks were reduced to their basic geometric structural constituents, the relations measured became obvious. Pursuing in this direction and armed with a simple ruler, students were to record the measurements and engage in elaborating their observations. Then, numbers started appearing in the studies and students got excited by their finding.

The measurements reflected an inner proportional relation in the artworks observed. Now, whether this is the result of an intuitive visual act on the behalf of the artist or they are intentional, rational and mathematical applications planned in the works' conception and construction has to be demonstrated for each individual work.

Nonetheless, the observations do exist as measured and noted. Most of the time and especially when working on classical or modern artworks, students noticed that the picture planes were often divided according to a simple fraction such as 1/2, 1/3, 2/5… etc. on the vertical or the horizontal axis of the work, as if the artist was concentrating the main subject matter in a certain zone and building over a rhythmic division of the picture plane. These divisions are evident in the use of color, motifs, shapes, color value or linear partitions, visible or suggested.

For example, the division at the ratio of ½ in light and dark of the background of "Quappi in Pink Jumper" by Max Beckmann gives a fairly straightforward idea of balance with the placing of the lady on a slight diagonal axis between the two. Yet, in this particular work the figure is held within a series of very similar equilateral triangles coming from the top and the bottom edges that add to the intrigue of the painting. Students were also excited to notice, in this work, the suggested invisible diagonals in the lighter section on the right, as if the light is falling through from the right illuminating, at the same time, the figure and the *dark(er) side* of the work. (fig.6, p.11)

In other works, this same divisional fractional relation is achieved through the use of shapes; as for example the vertical division in Hector and Andromache, 1912, by Giorgio de Chirico, where the two vertical shapes on the left and the right constitute 1/5 of the width of the work each. The centered "couple" occupies 2/5 at the center of the work and 3/5 of the width at the top and the foot level. Thus, forming, as observed, a triangle at the bottom center and a circular central agglomeration at the top of 3:5 ratio, each relative to the width of the work. (fig.18, p.25)

Other recorded measurements made obvious the use of the repetitions of equal size segments of shapes or divisions, with an even and proportional correlation among them. As the analysis gave the impression that the work was built in multiples of a certain dimension and at the same time proportionally relating to the height and the width of the work itself - Juan Gris's Bottle and Glass on a Table, 1914. (fig.19, p.26)

Another type of observations related to the formations of hidden repetitive and proportionate geometric shapes within the artwork. When students were analyzing Fernand Léger's "The Discs in the City" of 1920, (fig.20, p.27) at first glance, the main structure appeared to be mainly based on vertical divisions and subdivisions along the picture plane. But it was with a great excitement and surprise that students discovered that other hidden structures evolved when joining the center of the "discs" revealing triangular configurations. The investigation demonstrated that they evolved around the center of the artwork, from small to bigger triangles, in what can be qualified as a slight rotation. These triangles share similar proportionate structures as a group; while other triangular formations, on the left and the right of the work, share different relative structure. (fig.21, fig.22, p.28)

These mathematical correlations of measurement, regardless of whether they are arrived at intentionally or not on the behalf of the artist, they underlie the visual expression. Students got closer to understanding their initial intuitive attraction to the works. They became convinced that these "significant" artworks, that they had chosen, hold more to the eye of a visual complexity than could be immediately seen at first glance. Here, one would rather start seeing with "the inner eye", as one student mentioned, after an in depth understanding of the composition on different levels.

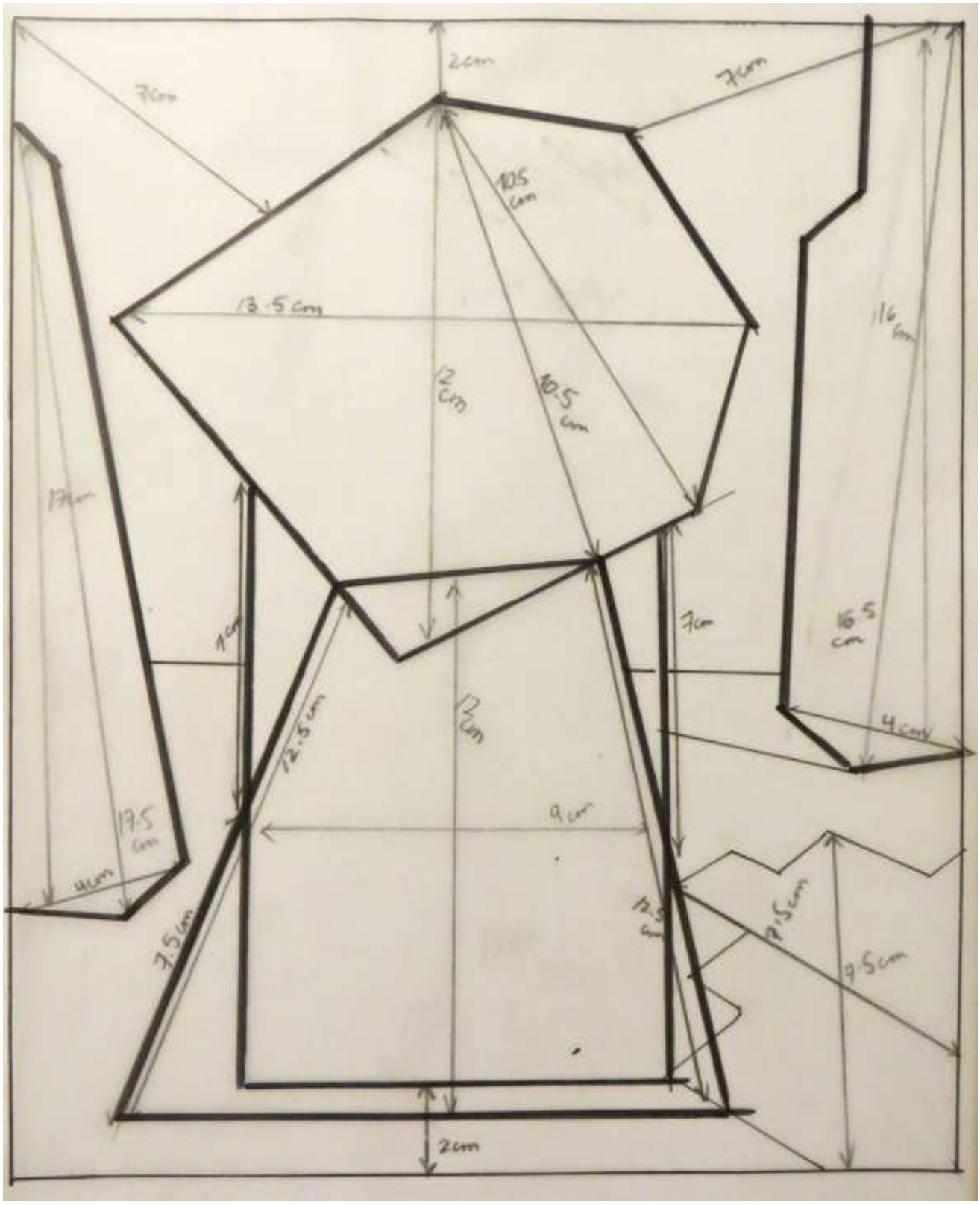
The mathematical *relativity*, among the visual constituents of the artworks studied, was met in all the works analyzed. Whether we can generalize this fact to all artworks; that remains to be proven. But what remains exciting, at this level for the students, is that they can see, experience and *measure* using simple means: the expression as reflected in the composition of the work, its interrelations of the elements, their relative proportions and placement.

The students came to the conclusion that, even if the observed relations were intuitively worked out in the artworks analyzed, each artwork has a mathematical *relativity* among its visual constituents that contributes to its expression as whole.

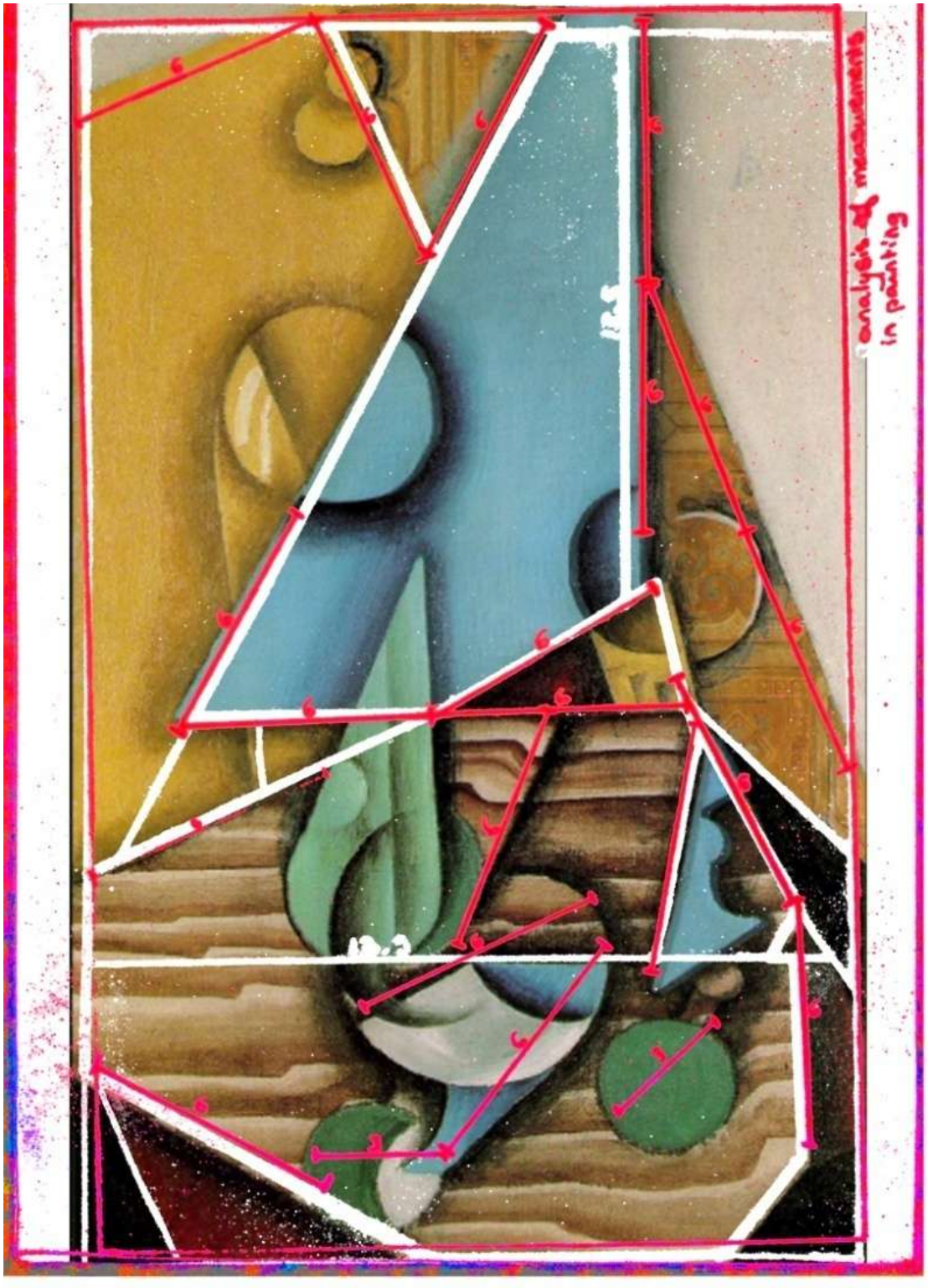
It is finally this kind of thinking, with the integration of the core ideas and their re-investment, which was encouraged in the application exercises. Students have shown a significant progression in assimilating the use and expression of the visual vocabulary, understanding the concepts and notions related to them and equally the ability to synthesize and apply them.

The attention given to the interactions, the inter-relational affinities of the parts that constitute the whole artwork during the analysis, was capitalized upon in the processes of the model making.

The applications of the outcomes of the analysis, as they stem out directly from an "organized" structure, when treated with the necessary attention to their proportional qualities, could be experimented with to the limits of harmony or dissonance, to the frontier of sense or none sense.

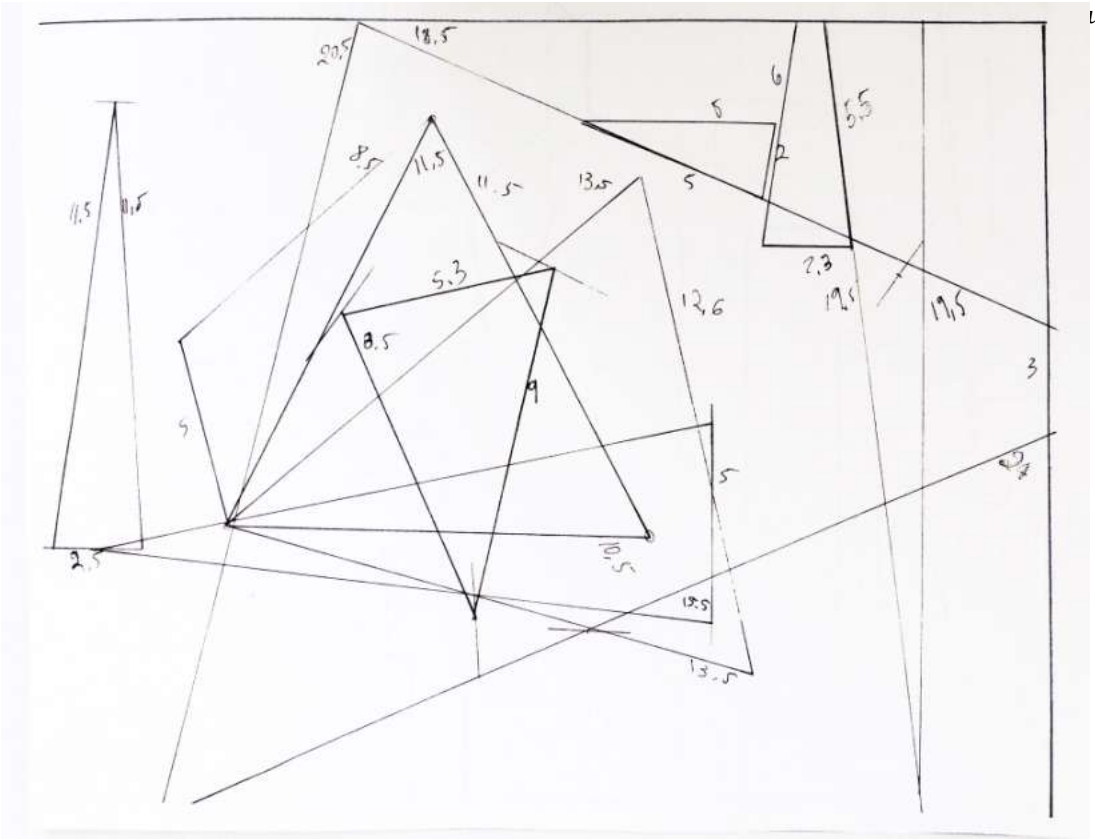


18- Hector and Andromache, 1912, by Giorgio de Chirico. Measures of basic shapes

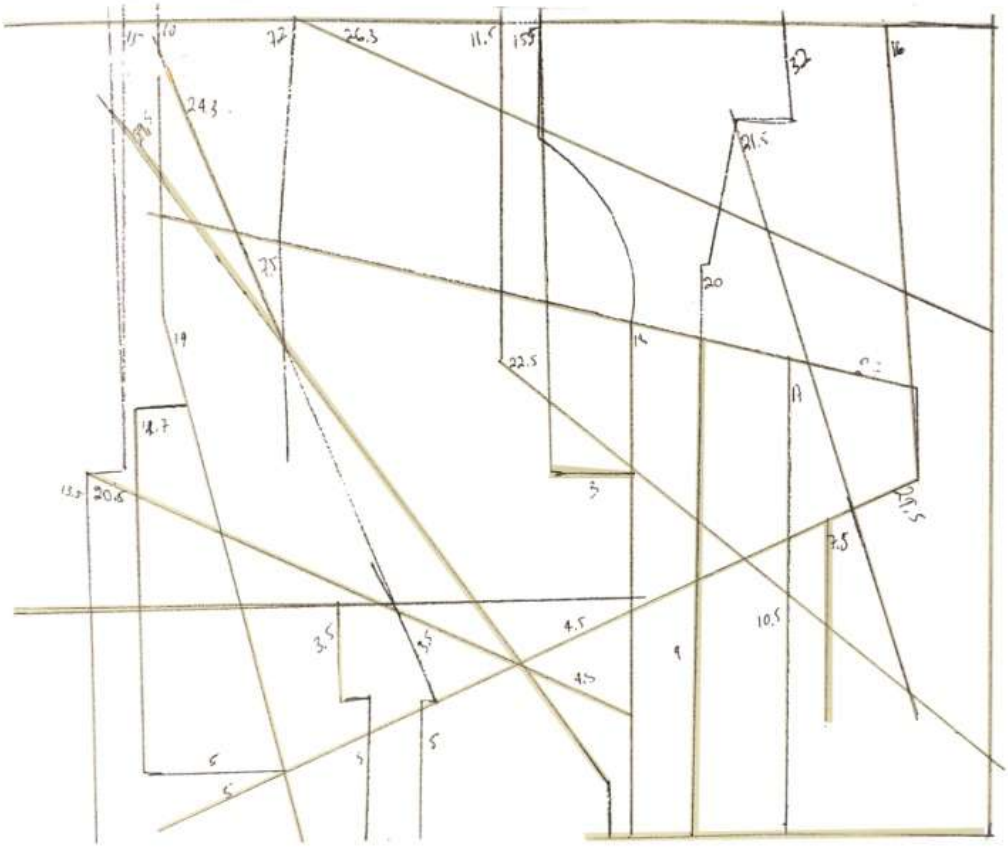


19- Juan Gris, Bottle and Glass on a Table, 1914
Overlapped with student's measures

20- Fernand Léger, The Discs in the City, 1920 –
Student's tracing of alignment of the shapes



21- Student's tracing of triangles formed by lines alignment of shapes and joining the center of the circles



22- Student's measurements of shapes

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Annex: A

What is COMPOSITION?

Artwork Analysis
Research and **choose** an artwork that **interest you from the – list of artists***

Karel **Appel,** Francis **Bacon,** Max **Beckmann,** Pierre **Bonnard,** George **Braque,** Paul **Cezanne,** Gaustave **Courbet, Da Vinci, Dali,** Stewart **Davis,** Giorgio **De Chirico, de Kooning,** Maurice **Denis,** Sonia & Robert **Delaunay,** André **Derain,** Robert **Diebenkorn,** James **Ensor,** Eric **Fischl,** Paul **Gauguin,** Arshile **Gorky, Gottlieb,** Jaun **Gris, Hofmann,** Jasper **Johns,** Wassily **Kandinsky,** Paul **Klee,** Ferdinand **Léger,** René **Magritte,** Édouard **Manet,** Franz **Marc,** Henri **Matisse, Michelangelo,** Claude **Monet,** Giorgio **Morandi,** Robert **Motherwell,** Emil **Nolde,** Georgia **O'Keefe,** Pablo **Picasso,** Camille **Pissarro, Raphael,** Henri **Rousseau,** Peter Paul **Rubens,** Julian **Schnable,** Frank **Stella,** Yves **Tanguy,** Cy **Twombly,** Vincent **Van Gogh,** Jacques **Villion,** Édouard **Vuillard**

(*****any other artworks should be agreed upon by the teacher)

A. Color Analysis: reproduce the colors used in the artwork chosen. **Color Chart**
To be presented next to the image as follows:
1. **Color scale** – 2. **Gray scale** – 3. **Warm/Cold** – 4. **Transparent/Opaque**

B. Outline: Linear drawing of the work.
C. Contour: Linear drawing of the work.
D. Basic shapes: reducing the work – based on its outline – to general shapes, then to more specific ones.
E. Geometric shapes: reducing the basic shapes to geometric shapes
F. Light and dark: a tonal, light & dark distribution of the work.
G. Masses: Reproduce the work using a tonal (Gray Scale)
H. Texture & surfaces: understating their distribution& importance in the work, if used in the work.

Structural Analysis: Visible / Invisible

1. **Structure**: looking through the (visible) shapes and lines for the structural elements – the skeleton.
2. **Force lines:** Define the major lines (visible, but segmented, suggested or invisible) within the composition by drawing darker to lighter lines according to forces and directions.
3. **Figure / Ground** analysis. Draw the elements of the background in light pencil – tonal analysis (4H) gradually to the closer elements (4B).
4. **Balance**: an examination of how the works are balanced – is it through the distribution of shapes; tones, contrast, shapes, light and dark… how is the work balanced? Masses? Color? Shapes? Cold/Warm? Transparent/Opaque? Structure? Dark/light?...
5. **Space:** Spatial reading of the work - tonal (Gray Scale)
6. **Other**: other material or elements essential in the composition of the work.