

History Alive: Discovering the Vibrance of the Past

Dr. Carlos Eduardo Silva

Professor, Department of Environmental Engineering, Federal University of Rio de Janeiro, Brazil

ABSTRACT

There are various names to the subjects that fall under the category of History and Humanities of Architecture. This paper covers all those varieties and their one expected goal in teaching; of connecting to other subjects of Architecture. The paper elaborates with examples on how one could relate Past with the present and Theory with Practice. An innovation in teaching also witnesses the subject being taught as a studio; at times in reverse and sometimes through Art.

KEYWORDS: History, Humanities, Pedagogy, and Architecture

I. INTRODUCTION

Once a student asked me, if I could teach History of Architecture in a story format; today when my lectures and studios answered the query. Now history and humanities of Architecture are thickly woven into each other in the lectures. It was always difficult to teach and learn Architectural buildings in isolation without discussing the lives of their inhabitants.

In the painting called “Pericles' Funeral Oration (*Perikles hält die Leichenrede*)” by Philipp Foltz; sketches the scene of Pericles’ oration over the Funeral Pyre of Athenians at the lost Peloponnesian war. In the background of the painting is the Acropolis of Athens; on which sits the unmistakable Parthenon. Pericles’ gesture also prompts and idea of provocation as well as pointing the great Parthenon. The narration enlivens Architecture.

In the Oration; Pericles’ says:

“Our political system does not compete with institutions which are elsewhere in force. We do not copy our neighbors, but try to be an example. Our administration favors the many instead of the few: this is why it is called a democracy.”¹

The oration and the architecture in the painting reflect the democracy of Greek Civilization.

Parthenon as “The Building of Democracy” is reflected in “The Curse of Minerva” – a poem by Lord Byron. He narrates the glory of Parthenon and the dilapidation of it on purpose for Political victory.

Another instance is In the “An Absence of Slaves” a Poem by Josephine Jacobsen; she says:

*“The free raised these!
She cried to the blue sky
And honey-veined columns
‘This is no pyramid’.”²*

Hence we bring History, Politics, Art, literature and Architecture into one narrative. For all those who thought that history was the most boring and theoretical subject to learn or teach; there is a new perspective on board.

Through this process not only can one weave a student’s interest into the subject but also make them aware of multiple other art works associated with a single piece of Architecture. Projects here could then be inspired from all these subjects around Architecture.

II OBJECTIVES

1. Make history lectures as narratives and hence interactive
2. To connect the subject with other disciplines
3. To make appropriate use of History knowledge in Research and Design.
4. The changed perspective of History will indirectly also inspire the love and interest for theory and literature in Architecture.

III METHOD

To narrate the narrative and or studio method of teaching history and Humanities in Architecture; the paper discusses multiple projects below. Detailed description of its goal, aims and objective will help the user implement the project in its correct sense. The paper will also provide tools and documentation of various lists needed for the innovative teaching method.

Projects planned and implemented under the various subjects that discuss History and Humanities of Architecture are listed here. Projects discussed in the paper are listed under three main categories: Research Projects, Design Projects and innovative trials. The first type projects will encourage the student to read various books on the given topic and analyze the conditions discussed. Answers to the research projects will never be direct; only through a rigorous study and analysis; will a person be able to conclude a solution.

The design based projects will explore the outreach of History into the Architectural Design studios. The study of history could help in concept development strongly. It can also teach Architectural analysis and geometry in Basic Design.

The third category is of topics that are trials to trigger the fun of the subject. History taught in reverse could be a boon for the first year student to whom Egypt and Indus are Big NO whilst Burj Khalifa or Zaha Hadid would already be in discussion. Even objects like Coffee, silk or Aeroplane of daily use may interest the student; and whilst they would be in the process of finding the history of these objects one would discover all its contextual past including Architectural implications. History from Art could be addressed for a later group of students; it could work as a good elective.

List of Projects discussed in the Paper are stated here:

Research Projects

1. Cultural – stories and architectural narrations
2. Comparative / Evolutionary / Analytical Questionnaire
3. Documentary Films – Study and analysis
4. Poster Presentations
5. Timelines

Design Projects:

1. Interpretation diagramming
2. Cathedral Geometry Evolution
3. Design based on a provided Era / Ism

Innovation

1. History in Reverse
2. History through Art

History Games – Flash Cards, Board Games, Debates

IV RESEARCH PROJECTS

1 - Cultural Mythology

In discussing Minoan and Mycenaean Architecture; one cannot escape the Cyclopean Masonry or the Labyrinths of The Knossos Palace. Hence the use of the Greek Myth; “Minotaur of the Labyrinth” or “Cyclopes and Odysseus” would make the lecture interesting and also easier for the student to remember the related Architecture.

This aspect may be taken up further as a sessional project too. Each student may be allotted a mythology of any cultural Origin based on the on-going lecture series. Possible outcome may be an interpretation of the myth into any graphical form. Student may be asked to discuss relevant architectural elements also.

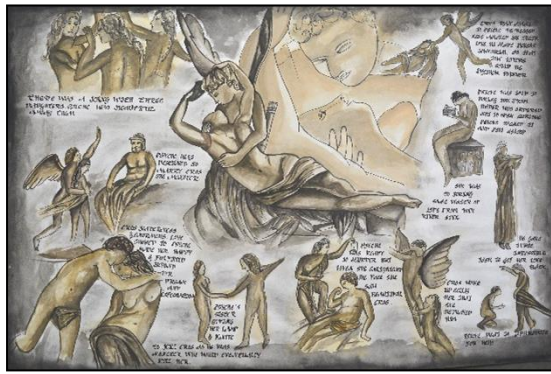


Image1: Myth of Psyche and Eros

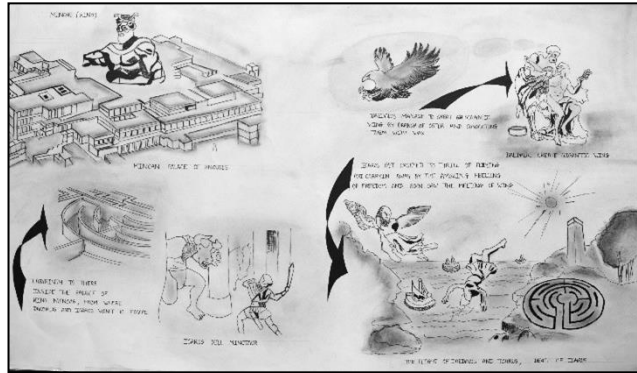


Image 2: The Myth of Daedalus and Icarus

2 – Comparative / Evolutionary / Analytical Questionnaire

Based on every topic that is to be taught under world architectural history and contemporary; a detailed question bank has been prepared that addresses the topic from a critical perspective. The questions are analytical, evolutionary or comparative type instead of direct descriptive questions. In a way we make sure the students does intensive reading before every answer because to achieve the answers to these questions the student will need loads of research.

A tentative question bank for this section is provided at the end of the paper. To discuss one example the following question not only confirms research but also a detailed architectural understanding.

Quest - With detail sketches explain the evolution of skylight in architecture from Rome to Renaissance.

Ans - Using one reference from each era in the expected timeline one could carve out a tentative evolution chart of changing skylights and hence study the play of light with respect to its functional value. Pantheon from Rome, Hagia Sophia of Byzantine and New St. Peters' from Renaissance era may be used.

To brief a little about the study; It can be observed that each skylight is an indirect representation of the type and purpose of building constructed. **Pantheon's** single Oculus reflects Republican nature with an Emperor. It is also staunch in its aura hence reflecting the limited entry of common man.

Hagia Sophia was built as symbol of Political victory through the road of construction. Hence the immense effect of the floating domes emphasized by the clerestory windows leaves the viewer spellbound. Hence the light plays an enchanting role temporarily on the viewer and permanently on the user hence satisfying its builder's goal.

The Clerestory windows of **New St. Peters** filter light through all sides of the groin vault narrating the warm welcoming and adjusting nature of Christianity as it changed from its early stages. The light creates a heavenly adobe that floats over its users as God's shelter and the rays touch its users as divine inspiration.

This was a brief account of how one could address the question. It should be further elaborated from varying other aspects of intensity, number of openings, climate, height of the structure etc. all the analysis should be graphically represented to enhance ones understanding.

Similar idea was also adopted in 3rd Yr SOCA subject also. Each student was allotted a question based on various Contemporary styles. Compulsory book references were also mentioned. Through the question answer exercise it was confirmed that the student has done readings, analyzed and laterally thought in the subject.

Quest: With examples differentiate between the philosophies of the New York 5 post modern architects. To answer this question the student will have to read Colin Rowe's account on the New York five. This would only formulate the base; now a detailed study of each architect's work would be required and then a comparative analysis.

At the end; has the subject successful hammered the concept and factual data into a student's mind through critical and lateral thinking process?

Vol. 25	PAISTEN 1	2023A	HEUTE SOPHIA	OLD ST. PETER'S
DOME FORM	• CIRCULAR DOME WITH OCULUS AT CENTRE	• IT HAS MASSIVE DOME WITH EXTENDED HALF DOMES	• CIRCULAR DOME	
SIZE	• HEIGHT OF OCULUS & DIAMETER OF CIRCLE IS SAME, 43.3 M. • BASE - 1.2 M THICKNESS - 6.4 M.	• DIAMETER - 182 FEET	• OUTER DIA - 137.7 FEET • INNER DIA - 136.1 FEET.	
MATERIAL USED	• CONCRETE, MARBLE, TUFFA, PLUMICE AND POROUS LIGHT STONE	• OSHLAR, BRICK, MARBLE, LIGHT LIMESTONE, SANDSTONE	• BRICK, STONE	
SPECIAL ELEMENT	• ROTUNDA - 4535 METRIC TONS.	• MINARETS, 4 SPHERICAL TRIANGULAR PENDENTIVES	• THE CONSTANTINE WING	
SKYLIGHT				
WINCH& TYPE & NUMBER	• OCULUS - 1 OF 92 M DIA.	• BENEATH THE DOME ARE 40 WINDOWS		
LOCATION	• CENTRE OF ROTUNDA	• BENEATH DOME.		
SHADOW PATTERN			AROUND DOME 	

PANTHEON

HAGIA SOPHIA

CLYST. PETER'S

SPACE DESIGN PRINCIPLES

DOME WITH OCULUS (INTERIOR)

SECTION

PENETANCES OF HAGIA SOPHIA

SKYLIGHT

CLERISTARY WINDOWS

SECTION OF PANTHEON

ATOLE DISSECTION

3 – Documentary Films

“Engineering an Empire” series covers all ancient civilizations in detail. Each documentary discusses the socio-cultural, Religious, political, art and Architectural conditions and happenings of the given era. Most of it is depicted through motion picture and not just narration; hence involving the viewer to an extent. For example in the Egyptian Documentary there are actors who in-act the Pharaoh in discussion; construction is shown in its happening, an attempt is made to demonstrate various rituals and political changes. The transition from past to contemporary is dramatically managed. Overall the documentary is worth a while of every Historian. Students may find it slow or difficult hence its importance has to be emphasized by the faculty.

There is a subject called Seminar on Contemporary Architecture in 3rd yr B.Arch of Pune University. It covers the Architectural styles post Industrial Revolution. Other universities may have this topic under different name; nevertheless it is compulsorily covered.

While discussing the styles around mid 1900s; namely Brutalism and Fascism; it would be a must to cover the political out growth at that time. Mentioning the presence of World War II may not be enough; its basic data is already known to the student from school. How this political upheaval catalyzed changes in Architecture and other disciplines is also vital.

In this context there are so many films that one may fall short of time to cover all. For example *“Architecture of Doom”* covers the condition of Art in the society when Nazi regime ran Germany. It demonstrates the unnerving plight of Cubist art against the propagated Arete art of Classical era. The film also shows how through a trailer video made by the Nazi; that demonstrated through images how cubist art was degenerative and representation of dyslectic or physically sick people. Its amazingly shocking yet provocative of a question.

In another main stream cinema name *“Equilibrium”* a new world is shown; where people live as if in herds or machine like. The society has no emotion, socio-cultural events, relations, opinions or questions. The architecture is fortified vast settlement. The huge walls around and inside with classical orders represent the dictatorship and its bias simultaneously. A Central control system in the film by an unknown character (not human); direct one more towards the conclusion. The conditions outside the fortification are emotional but destroyed and plagued by varied physical and mental disease.

Involvement of main stream cinema may also be very helpful; name *“Midnight in Paris”* covers various Artists of 1900s. Animated film named *“Peabody and Sherman”* would work best for first year. It would be fun at the same time informative of various eras and personalities.

Cinema could be a great tool to teach if utilized correctly.

4 – Poster Presentations

As mentioned before in the paper this topic is covered in 3rd yr. it’s very interestingly named by Pune University – *“Seminar on Contemporary Architecture”*. It is not termed as history but as contemporary because they want the student to learn from these styles directly for present and future. It is also meant to be conducted as a Seminar where one would not just listen and accept but question and evolve. For these goals to be achieved; a Journal format may not really seem successful. Analytical question answers, reading discussions or presentations through PPT and or Posters may help. Presentations, Posters and analytical question answers have been conducted in this category. Each student was allotted one Style and was required to make a presentation on that style. The presentation requirement included – political, social, art, furniture, literature and Architectural conditions under the given style. These criteria confirmed that the student is not working wearing blinkers. To support the PPT a poster was to be made to represent the punch line of the style. This confirmed the final understanding of the student. A Digital Graphic design exercise can be connected to Technical communication subject.

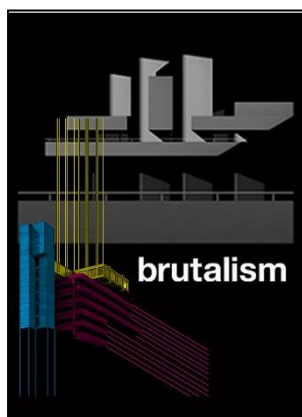


Image 4 – Brutalism

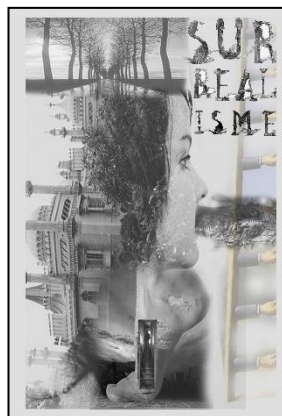


Image 5 – Surrealism

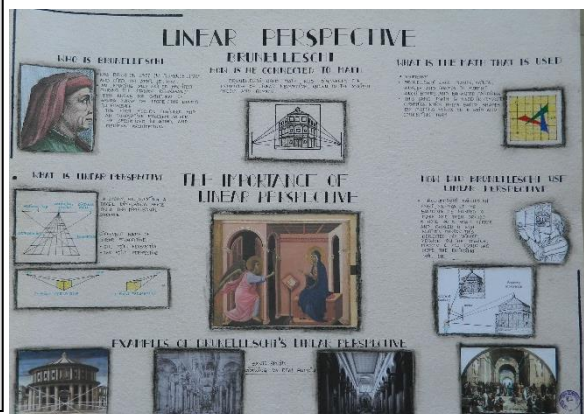


Image 6 – Renaissance Linear Perspective

5 Timelines

History is often associated with the knowhow of dates and ONLY dates. Very critical part of drawing a timeline is dates; hence timeline exercise seems relevant here. From our pre-conceived notions we believe that timelines are always along a horizontal line, associating themselves with events on the way. These events may include personalities, art works created, films produced, literature written, catastrophes occurred, socio-political decisions taken etc. and architecture conceived. So many subparts to one single line along the standard date division. With respect to our field of study we restrict our horizontal line information to the subject we need. Unfortunately the other sub parts of the event line are overlooked.

Exercise here intends to invigorate a horizontal timeline, vertical event and political mapping study that will culminate into a holistic understanding of the society at a given space and time. For example it seems incomplete to discuss the architectural forms of Eisenman situated in USA without mentioning the idea of De-Constructivism. French Philosopher Jacques Derrida coined the term De-Constructivism in philosophy. It was first witnessed in literature and later translated into Art. Architectural understanding (though in controversy) came as the last layer of interpretation which started in a different discipline, place and time. Hence a timeline that discusses the overlapping events does justice to the actual occurrence of the event.

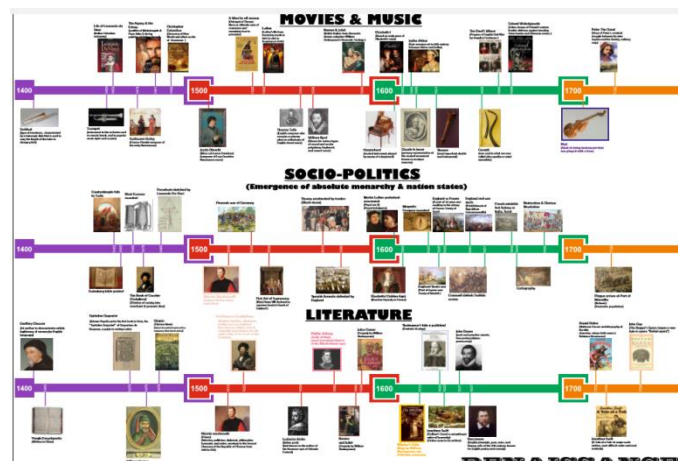
Keeping the importance of overlay in mind an exercise was formulated where groups of students were asked to make various timelines; starting and ending in same dates.

List of timelines made: World religion growth, Revolutions, Natural disasters, Political events, Development of food, Development of, Transport, Formation of earth, Scientific discoveries and inventions, Art (sculpture and painting) and Literature.

All these timelines were then overlapped and viewed for a further analytical study.

In the second attempt of similar exercise the project was maneuvered by allotting era / civilization to each group. Once they have their focal dates; they were required to do a parallel timeline study and analysis within that era.

Couple eras that were selected for study were: Medieval, Renaissance, Enlightenment, Industrial Revolution, World War II, and Consumerism, Post-Modern etc. This gave each group a very detailed understanding of their time period and the timeline created by all the groups could be connected along the horizontal line since they were of continuing dates (no two groups had overlapping dates).



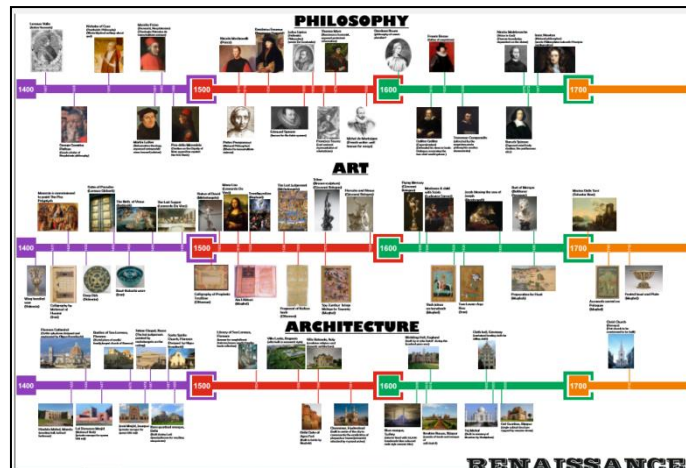


Image 7 – Renaissance Overlay Timeline (Movies, Music, Politics, Literature, Philosophy, Art, Architecture)

V DESIGN PROJECTS

1 – Interpretation diagramming

History subject teaches a long list of Architectural buildings; they are of course meant for further analysis and application; but unfortunately they get limited at the documentation stage only. For example we understand The Great Pyramids or The colossal Pantheon only by its external sizes or ancient and classical elements used. One should explore the building further until it inspires and transpires into design projects.

From first year onwards a student is trained to draw plan, section, elevation or view. A drawing that inspires the design and it may not be restricted to becoming a plan or an elevation typically; is very rarely understood. One can call these drawings as Interpretation diagrams (comes at the end) or as Concept Diagrams (comes at the start). Analysis diagramming once understood is a great tool to use for breakdown and study.

This tool could be adopted for Case study purposes such that they go from being mere documentation to being a deeper study that could be applied.

Students should be first taught the method of diagramming; showing reference books like Precedents in Architecture. Then they may be allotted one historic building each for individual study. All drawings, photographs and descriptive narration are compulsorily needed for a building to be selected and studied thoroughly under this category. Only then the diagramming is possible.

The project was successfully conducted in the class combining couple subjects namely; History, Theory of Design and Architectural Design.

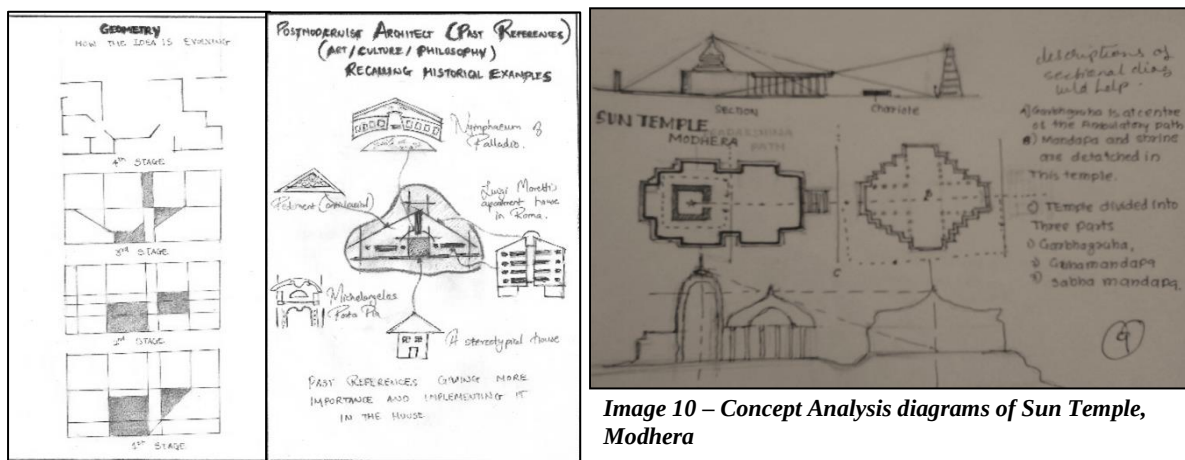


Image 8 – Vanna Venturi House Geometric evolution

Image 9 – Vanna Venturi House inspiration analysis

Image 10 – Concept Analysis diagrams of Sun Temple, Modhera

2 – Cathedral Geometry Evolution

Gothic geometry evolution could be considered similar to the above exercise of interpretation diagramming. Yet here the final outcome is a series of connected diagrams that narrate the making of a building from zero. In our Medieval and Renaissance lectures we brag about the strict and rigorous geometry that was followed by the architects then; and how interestingly the designs were evolved. We also agree that the Renaissance owes its knowledge to the Greek Mathematicians who introduced Fibonacci series and golden ratio beginning from Parthenon itself.

The use of Squares and circles individually and interlocked within each other; amazed the users then and designers even today. This technique of creating a complex plan from a pure form is beautifully demonstrated by the Cathedral designs. This could be one way of being inspired by history and yet not creating a clichéd historic building. For example Le Corbusier's buildings have this never escaping golden ratio and Renaissance geometric reflection; yet one would never call it an associational historicism; in fact it is beyond synthetic also. The study of Corbusier's work in the book "Towards An Architecture" brilliantly demonstrates his hidden relation to History.

A list of Medieval and Renaissance Cathedrals was made for which Plans and or sections were available. Each student was allotted any one drawing; Plan, Section or Elevation for study.

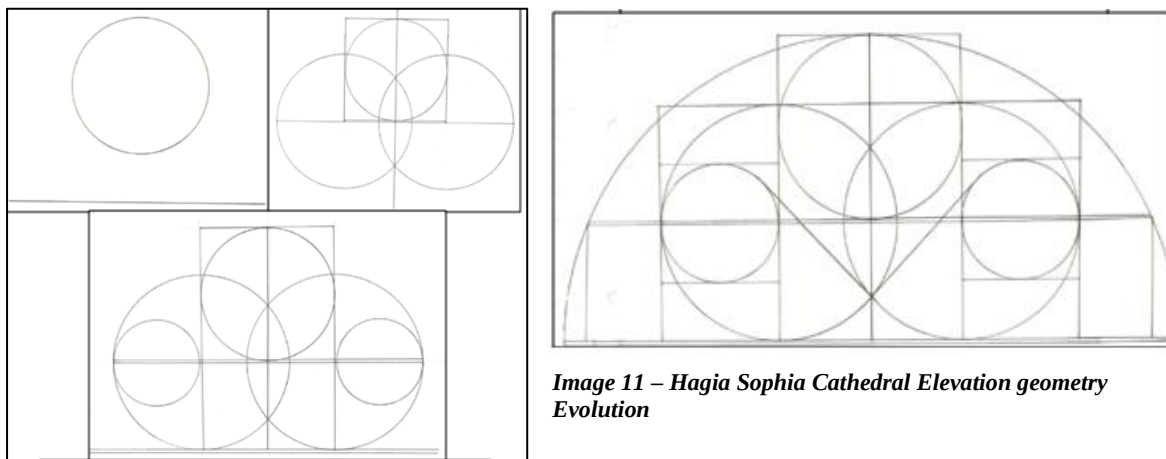


Image 11 – Hagia Sophia Cathedral Elevation geometry Evolution

3 – Design based on a provided Era / Ism

In order to connect Architecture Design to history subjects; design esqui is introduced under history.

Students are allotted an era or civilization from where they are required to be inspired for the given design project. One of the esqui conducted was a Gate design project. Students were allotted various western and Indian history civilizations from prehistoric to Renaissance period. According to their historic period they were also allotted relevant sites. For example with a prehistoric era the site would be an Open Garden; whilst for Gothic Splendor the site would be entrance gate of the Institute.

Very often this project is adopted in colleges under the topic of historic study in basic design. Condition in this project is that at no point should the student be allowed to simply copy paste the elements from history. One should study in detail; whatever era is allotted only then as a inspiration and interpretation of the given era the design should be evolved. If for Egyptian era; one makes the pyramid with not more than a change of material; it would be a compromise of design and project approach.

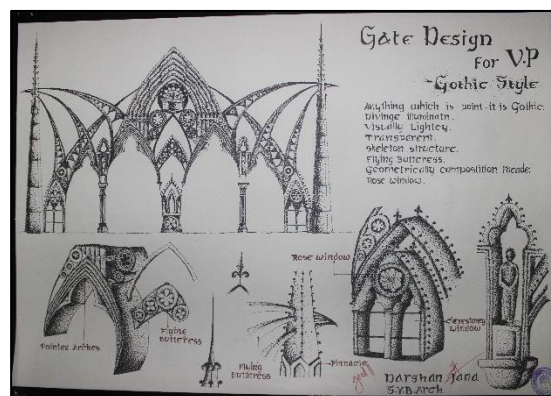


Image 12: Gate design (Gothic Era as Theme)

VI INNOVATION

1 – History in Reverse

As we discussed under the timeline project history is always treated as a linear date based subject whilst it should be taught as a lateral connection and in a circular order. Architecture should be taken into account at the end. Every topic should begin with its context, art, philosophy, literature etc and it should conclude with the subjective architecture of and for the conditions discussed.

First year students are forced to read and understand the context and happenings of pre-historic times. Whilst their references in and around their own time is very weak. One who cannot understand the value and beginning of a brick wall in the contemporary world is expected to appreciate the Lavu and Tipi shelter architecture in its given Time – Space continuum. This ironic condition has brought us at a point of contemplation where one can increase practice sessions to drill the given portion or better off; change the portion pattern. As a suggestion under this category; History is taught in reverse order.

Reverse comprises of two steps; one no topic or civilization is discussed with its architecture first. A detailed contextual background is set up and in conclusion architecture comes automatically, hence making its existence unquestionable. This process also ensures that the teacher never says “a building existed” without giving its “WHY” first. Second step of reverse is to teach history starting from contemporary (Today) and go all the way back to Pre-Historic. By the time one reaches Pre-Historic time period the student is very clear of what why and where.

From the reverse history lecture that was created for this section an interestingly woven example is of the reverse path containing all WHYs to reach the Tatlin Tower by Vladimir Tatlin.

Charles Darwin’s “Origin of Species” of 1859 inspires Marx and Engels to understand the nature of life on earth and their sustenance if at all. This led them to some critical conclusions and gave rise to their “Communist Manifesto” in 1888.

“The classes and the races, too weak to master the new conditions of life, must give way. (...) They must perish, in the revolutionary holocaust”³ – Karl Marx

It’s difficult to put in few words the impact that world has and is witnessing since the release of this revolutionary thought. The Russian political system went through a major upheaval that changed the outlook of internal and external society. This was skillfully narrated by Geroge Orwell in his children’s story book named “Animal Farm”. In the book he takes the atrocities and hypocrisies of the 20th Century surrounding the Russian Revolution and transforms Trotsky, Lenin, Stalin and their followers into farm animals and narrates the story of Russian politics.

This fight between the classes of the society is depicted by various artists in their constructivism art work. El Lissitzky’s Art work of 1919 - “Beat the white with the red wedge is one famous in its time”. It not only demonstrates the clsses split, tension and war but also the motion and action in the society as its taking place. This Socio-Philosophical dynamism is then reflected in Architecture too.

Vladimir Tatlin the Father of Russian Constructivism was commissioned to build Tatlin Tower – Headquarters for the International Communist Organization of Moscow. The architecture was hence perceived and conceived reflecting the ideology of Communist revolution; dynamism and growth.

2 – History Through Art

Flavio Febbraro and Burkhard Schwetje's book named "How to read World History through Art" has been pivotal in getting this idea going. Every historic event has been narrated using paintings, carvings and or sculpture of various time periods in the book. Beginning from the Code of Hammurabi in 1792 BCE till the terrorist attacks of 9/11 the book is an amazing guide. Once through with these many art works; one is surely facilitated with knowledge on how to find and use art works for further historic events.

3 - History Games

It is often witnessed that playing games helps register important information. History is a tiring subject when taught in monotonous lecture formats; hence use of innovative techniques is crucial. Unfortunately there are not many existing games that would teach world and Architectural history to students, hence as part of assignment we could get some games made and then play.

Making Vocabulary or Building and events flash cards is one of the simplest exercises. These cards are easily stored in the library for repetitive use. Making Board games is a challenge. First year students were allotted various parts of Pre-Historic and Historic civilizations. They were asked to read particular books and document the data they find. Catch in the assignment was that the documentation should not be in 2d and not on sheets. Models were compulsory to depict architecture. They were also asked to make good use of Horizontal timelines, Maps for locations and flash cards for referencing events. Beyond this they were asked to make it interactive with the viewer. End result automatically became a game in varied forms. Images below display the workings.



Image 13 – History Game Model for Before 5000 BCE

The game rotates on its central axis; Timeline, event, and map with objects need to be aligned with each other



Image 14 – History Game Model for around 5000 to 2500 BCE. When two correct answers are matched, the board lights up.

VII CONCLUSION

A paper on History & Humanities pedagogy is one that attempts to bring History to life. Through all the variety of projects discussed it has been a constant aim to enliven and lighten the subject for the student. One should also not forget that the subject is considered as redundant by most individuals; hence the projects have been carved in a way to connect the subject to other subjects of the discipline creating overlap and value.

It is only the pre-conceived perception of history,

That renders its silhouette as past.

History is a language of architecture,

A language can only evolve not stagnate.

One Has To Learn From It,

Not Just Learn It.

Analytical / Evolutionary and Comparative Type Question Bank (this is basic lists)

A) Pre-Historic to Industrial Revolution

1. Do a detail comparison between Egyptian (Dier El Medinah) To Greek (Athens housing)
2. Discuss the architectural evolution from Early Christian Church to Gothic Cathedrals
3. Justify Villa rotunda as based on Pico's Oration.
4. With detail sketches explain dome & skylight evolution in history of Architecture.
5. Discuss the architectural evolution from Roman (Atrium House) to Villa Rotunda (Renaissance)
6. Do a detail comparison between Amon at Karnak and Parthenon

7. Giving reasons for the evolution of Optical Illusion the following – Sphinx (Egypt) to Ziggurat (Mesopotamia) to Parthenon (Greek) to Michelangelo's David (Renaissance)
8. Do a detail comparison between Mesopotamian Palace and Minoan Citadel.
9. Explain the Evolution of Human Proportion from Egypt to Renaissance (Vitruvius) to Modernism (Le Corb).
10. Differentiate between a cross plan and square plan church.

B) Industrial Revolution Onwards

1. How should the architecture of today be; elaborate with the understanding of past and present.
2. Explain with detail sketches the design process of Peter Eisenman.
3. Robert Venturi says "less is bore" – explain the sentence with example of his architecture
4. Elaborate on Venturi's debate of Ugly and ordinary.
5. How is Aldo Rossi Between the Grays and Whites of Post-Modernism
6. Differentiate between the organic philosophies of Antonio Gaudi, FLW and Laurie Baker.
7. With examples differentiate between the philosophies of 5 gray post modern architect
8. Discuss any one Super Studio project in detail under the influence of Marxist' philosophy.
9. Explain with example Charles Correa's philosophy of Zero in Architecture.
10. Discuss any one Archigram project under the influence of mechanization and commercialization.

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XI IMAGE CREDITS

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- 2 Greek Mythology – Work of 1st yr Student at Vidya Pratishthan's School Of Architecture, Baramati 2015
- 3 Question / Answer - Work of 2nd yr Student at Vidya Pratishthan's School Of Architecture, Baramati 2015
- 4 Isms Poster – Work of 3rd yr Student at Vidya Pratishthan's School Of Architecture, Baramati 2015
- 5 Isms Poster – Work of 3rd yr Student at Vidya Pratishthan's School Of Architecture, Baramati 2015
- 6 Western Architecture Theme Poster – Work of 2nd yr Student at Vidya Pratishthan's School Of Architecture, Baramati 2016
- 7 Timeline– Work of 4th Yr Student of YCMOU Board, Rizvi College Of Architecture, Mumbai, 2014
- 8 Geometric Evolution – Work of 2nd Yr Student of YCMOU Board , Rizvi College Of Architecture, Mumbai, 2012
- 9 Inspiration Diagram – Work of 2nd Yr Student of YCMOU Board , Rizvi College Of Architecture, Mumbai, 2012
- 10 Concept Analysis Diagram – Work of 2nd Yr Student of Mumbai Board , Rizvi College Of Architecture, Mumbai, 2010
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