

ARCHITECTURAL MODERNISM AT TEXAS A&M UNIVERSITY
CAMPUS

An Undergraduate Research Scholars Thesis

by

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ABSTRACT

Architectural Modernism at Texas A&M University Campus

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This project proposes to create a digital database of modern-era buildings on the TAMU campus of buildings built between the 1930s through the 1970s. This would allow a deeper appreciation of these less understood modern-era buildings that have not been as in-depth analyzed and studied as some of the older buildings from the campus. However, as these buildings become older than 50 years (the typical age for buildings to be considered ‘historic’ in the US), it becomes critical to gather both documentary evidence and develop analytical frameworks to renovate the buildings without losing their distinctive attributes. The research responds to relevant recent documents like the 2017 Campus Master Plan that drew attention to these buildings and advocated for more archival and analytical research into them. The research combines both primary archival and site research as well as information from secondary sources.

Past written works about buildings on campus focus on the construction and general history of some buildings at the Texas A&M University campus. However, this project plans to add new layers of meaning to this existing information, in order to create a collective digital database consisting of architectural, historical and cultural significance of modern-era buildings on campus. The results of this will be a searchable inventory with general information on each

building, including dates of construction, architect, builder, and construction methods, among others. A series of campus maps will also be produced to depict the chronological evolution and construction of the buildings.

The expected outcome of the research project is to select a campus building from the modern-era and create an even more in-depth analysis. This will consist of locating, digitizing and summarizing the original construction documents from Cushing Memorial Library. It will also include drawings, photographs, and other relevant information about them that will help add to the understanding of their historical and cultural context and significance.

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Thanks also go to my friends and colleagues and the department faculty and staff for making my time at Texas A&M University a great experience. I also want to extend my gratitude to Cushing Memorial Library, which provided archives for research, and to all the professors and faculty who were willing to contribute information to the study.

Finally, thanks to my mother and father for their encouragement and unconditional love and support from all my family.

KEY WORDS

TAMU Texas A&M University

SECTION I

RESEARCH QUESTION/MOTIVATION/ARTIFACT

Theoretical Framework

The project will rely heavily on archival research to locate, summarize and interpret historical records. This will include archives such as relevant books, architectural drawings, building contracts, and other helpful documents, and to retrieve these, the Cushing Memorial Library will be a helpful resource, as well as any other university offices that might have other helpful historical archives, while the Evans Library will be mainly used for compiling and synthesizing all the information collected.

Then, graphic representation of this will be shown, in order to organize and visually depict the information collected. The goal is to compile information that could be potentially used for a future exhibition and facilitate continued research on these buildings from the modern-era time period.

Architectural Modernism

The architectural modernism directly affected the appearance of American cities, towns and university campuses starting in a small scale before WWII and a stronger influence after it. Its austere aesthetic adapted well to the shifting egalitarian social norms and building economically and efficiently during the Depression and post-war period. Muthesius, the author of *The Postwar University* offers an insight into the history of campuses built during this time period.

Texas A&M University Campus

The campus at Texas A&M University provides a microcosm of the national trends, while allowing a deeper understanding of the role that architectural modernism played in American campuses. This can be studied in Gaine's book, *Campus as a Work of Art*, which depicts the influence of this movement influencing the design of many campuses throughout the United States, and enabling a comparison to other buildings from different parts of the country. The analysis of this period enables a more complete appreciation of the University's campus heritage, while facilitating the ability to place it within the context of other contemporaneous developments. In addition, it is helpful in making a way to proactively conserve planning for these prolific modern-era buildings, which are thought to be less significant to the campus due to their plainer appearance and insufficient research into the historical impact that it fits into.

Modern-era Buildings

From the campus that is mainly Victorian and Classical Revival buildings, twelve of which were constructed at the peak of the Depression era, the campus layout and buildings saw a change starting in 1937. The construction of a large complex of twelve dormitories south of the existing campus signaled future growth. In a departure from standard practice, non-university architects were invited to participate in the new projects.

The book, *Architecture that Speaks*, then provides historical information from a perspective, much more specific to the campus, which presents the campus buildings and cultural details that shaped the college through time. Through this, it is known that the architect from Houston, Albert Finn, designed the cluster of dormitories for the Corps of Cadets. After the long-time campus architect retired in 1945, historians have lamented a guiding hand and named the subsequent period of growth as disconnected from its surroundings.

The proposed research project investigates this claim by locating its development within broader architectural contexts. This will recognize the variations of modern buildings, from Moderne to Prairie to Brutalist, among others. The changes through this era not only present in the aesthetic design of the building, but also helps determine how they coincide with changes in the academic programs of the university. The research project aims to expand the understanding of these changes in a cultural and architectural significance in history.

SECTION II

LITERATURE REVIEW/BACKGROUND/HISTORY/SOURCES

Through the development of the project, that was heavily reliant on archival research, but there were numerous other types of references used that added different layers of meaning and points of view into the information collected. These included The Battalion newspaper articles, photographs, and even newer and digital sources, such as the Texas A&M University Campus Master Plan of 2017, among others.

Primary Sources

The primary sources used for the research show an insight into documents from the timeframe in an original form.

Building Contracts Finding Guide

The physical copy of the original scanned document was helpful in facilitating finding specific contracts of buildings to see what major renovations, extensions, additions or other type of major repairs took place during the modern-era time frame.

The documents, listed some of the repairs that took place in the Agriculture Building, including electric, plumbing, roof, and addition of sheds.

The Battalion - Newspapers

The online resource is a digitized archive of Texas A&M University newspaper, The Battalion. It is a very user-friendly platform, where articles can be looked up by topics, and “Advanced Search” specific words, which was a useful tool that was used to look for “new construction” and “new building,” to find many helpful articles that talked about the construction progress of buildings from the 30’s-70’s.

One of the articles used was from 1950 about the construction of the Memorial Student Center, which demonstrates the cultural importance that the campus development meant, emphasizing the creation of a place of “harmony” and “solidarity,” that was “inviting” for student and “welcoming” to visitors. The design might have been based on the idea to unify people after the end of the second World War.

Aerial Campus and Building Photographs

The online resource provided by Cushing Memorial Library was used to search through the digital archives, in order to access aerial photographs of the Texas A&M University campus ranging from the 1930’s up to the 1970’s to see the physical change of the campus layout over time. In addition, it was also helpful to find the scanned photographs of most of the buildings in this timeframe during the time that they were being constructed and opened.

Among the archives, there was a drawing of the Corps Dormitories, done by the architect A.C. Finn in the 1930s, which shows how it was a very significant addition to the campus, marking the biggest student housing complex and signifying growth of the campus. In addition, there were aerial photographs of the campus from different years. In particular, two of these showed how the campus looked in 1956 and what buildings were constructed by 1974, showing a significant addition to the campus buildings. One of the main additions being the construction of the Oceanography & Meteorology building. Spatially, the addition of the tower appears to impose a different scale than the rest of the campus, marking the idea of a new signifier of the campus.

Secondary Resources

A Time of Resolve: Texas A&M During the Great Depression

This is a small book of a curated history of Texas A&M University during the Great Depression, and some of its traditions and important events that marked its history. Some of its chapters include “Student Life,” “Agricultural Extension,” “Men of Design,” “Vosper Designed Buildings,” “Project Houses,” “Other Buildings & FDR” that offered an insight into the social and cultural changes on campus. Among the information found on the booklet, there were images of scanned architectural drawings that show details of the Administration building on campus that helped study architectural details of the buildings.

Campus Masterplan 2017

This online resource of a digital document of the master plan of the campus was extremely useful, because it provided many different analyses of the campus site and provided numerous helpful diagrams and graphics showing the analysis. In addition, there are also tables and campus plan drawings showing the buildings categorized in different level based on their historical significance, such as with “Level 1 – Heritage Buildings.” In the table of Level 1 buildings, it is shown how some of the building of the modern era are considered “Heritage Buildings,” because of their recognized “exceptional architectural or cultural significance.” The table also shows that it is not necessarily dependent on the date of construction, which signifies that there was a more subjective form of criteria in the decision process of selecting which buildings were considered as “Heritage Buildings” for the college and worth preserving historically. This also means that there was not a fixed aesthetic agenda that was required to be followed for the designation of heritage. The modern buildings included in this list are the Chemistry Building, Scoates Hall, Hart Hall, Animal Industries Building,

Halbouty Geosciences, Memorial Student Center, Coke Building, Academic Building, Cushing Memorial Building, and All Faiths Chapel, which although they have a similar architectural language in their facades and materials, they share an important part of the history of the college and carry a lot of cultural significance.

Here We'll Build the College

The book, *Here We'll Build the College*, is an unpublished manuscript that was written by Ernest Langford, who was a professor and head of the School of Architecture at TAMU. The manuscript provides a list and detailed description of each building in the chronological order that they were built in, along with an architectural insight and analysis of the buildings. The descriptions include details such as the architects and contractors involved, estimated cost, details of the architectural design, any additions or extensions to the building and their costs, and what the cornerstones at their front and other façades say.

Richard Coke Building

After collecting data to form an overall view of the campus, the Richard Coke Building was selected as the building of focus of the research. This opens the discussion to a more in-depth studying of the building and how it fits into the modernist context of the campus. The book, *Here We'll Build the College*, by Ernest Langford has given an important perspective and general description of the Richard Coke Building, ranging from the historical to architectural context of the building. The construction of the building was finished in 1951, designed by the architectural firm, Herbert Voelcker & Associates and built by the Fisher Construction Co. It is described by Langford, the head of the School of Architecture at Texas A&M from 1925-57, as “the most elegantly finished buildings” on the campus. This was due to the use of fine materials and “superb workmanship”, which included exterior walls of a salmon, pinkish color of Roman

bricks and architectural elements made of Indiana limestone, as shown in Figure 1. The building is described as a “Contemporary Classic” for the time, and it housed the offices of the college proper, and was dedicated to Richard Coke “Father of the A. and M. College” in 1957.

The senior architect, Herbert Voelcker, working in the firm Herbert Voelcker & Associates had designed numerous courthouses in Texas. This information offers important background knowledge as to why some of the architectural decisions were taken through the design process of the building, which shows a very formal and elegant façade, imposing a sense of power. Knowing that the original purpose of the building was to house the administrative offices of the college proper, the exterior of the building was kept, the ornamentation of the facades is very minimal, and the dominant architectural elements become the columns and pilasters that frame the entrance in a very symmetrical way, as shown in Figures 2 and 3 in the Creative Artifact section.



Fig. 1. Richard Coke Building.

In addition, by analyzing the interior of the building and how the architectural floorplans are divided, it gives a better sense of the relationship of the spaces and how they work together inside the structure. This opens the possibility to relate the interaction of spaces with the program of the building and how it was being utilized by the faculty, staff and students of the campus, can be visualized in the exploded isometric drawing, which shows the three level floorplans of the building, in Figure 4, found in the Creative Artifacts section.

The lower level is actually located underground, while the second level is the first one accessible from both the front and back entrances. The ratio of the spaces, appear to be divided into smaller offices, while leaving main public areas within the offices, a bigger open space, inviting for visitors, yet still maintaining a sense of privacy for the offices.

SECTION III

EXPLANATION OF EXHIBIT/VENUE

Poster

The process of compiling, synthesizing and curating the data, images, architectural drawings and other relevant information, in order to create a poster that explained the research project was important to understand it even better. The curation process was one of the stages that helped me understand the project even better. Through this, I was able to actively make the decisions of the information that I wanted to present to the listeners, which was a very diverse audience from all majors. Knowing this information, I was able to choose how to present the information in way that was easy to understand the complexities of the project in a straight-forward manner.

This proved to more challenging than what it originally appeared, since there also needed to be a balance of the visual graphics created with the information to make it visually appealing and easy to read and understand.

Venue

The presentation of the research project was part of the Undergraduate Research Scholars Symposium of Texas A&M University, which took place in the Memorial Student Center on campus, in a big space where around 30 people were presenting their projects. This was an interesting experience, because I got the opportunity to see what other students from the college studying different majors had been working on. In particular, I enjoyed that I got a brief explanation and insight into the project of the student presenting next to me, which was from a computer science major and was working with face recognition technology and coding.

After, I also walked her through my project, and what I had learned from it. This was a great opportunity to have conversations about the projects with someone that understood the process of research and working on the project, while at the same time having a very different point of view of the projects.

Feedback

I was able to receive important feedback from the listeners that attended my presentation. One of the most important ones was from my assigned active listener, which was part of the College of Architecture department administration faculty. This meant that they already had prior knowledge relevant and related to the of the architectural project. At the end of my presentation, the listener gave me constructive feedback rating my presentation skills and actual project. Through this I learned that I was able to communicate well the essence of the project and had good body language and communication skills. It was also mentioned that although what was shown on the poster was communicated well, that it was hard for me to know how much in-depth to talk about the information collected since it was very extensive. They also mentioned things that I could improve on, such as how it was evident that I was a little nervous when presenting members of the staff, but when presenting to another fellow student, I was “much more confident”.

I also received very helpful feedback on things that I could do to improve my project, both in furthering the research and making of drawings to present it to others. After my presentation, I would ask students if they any questions, comments or concerns. This helped to understand in what ways the project could be developed to make it as clear as possible.

One of the students suggested that I make a timeline to graphically represent the digital database chronologically. Another student suggested that I should make progress diagrams of

how the modern-era building that I was focusing my research on had changed since it was constructed. These were helpful suggestions that I will work on to develop, because I agree that will help enrich the project and make it easier to visualize.

Presentation

Overall, this was a very enriching experience, from the process of creating the poster of the research project to the actual public speaking presentation. Presenting and sharing my research with others helped me to know how much I actually knew about the project. I also learned that the research question was different from a lot of other projects, because the it is not structured to be answered with a simple conclusion, but rather to gain a more in-depth understanding of the modern-era architecture. This is something that I realized some people were having trouble understanding during my presentation and is something that I will continue to work on to improve how I present the project.

SECTION IV

REFLECTION

Research Process

The research project was developed through a series of steps that led to the collection of data and information that ranged from archival research, to online, physically taking photos of buildings, reading books, articles, reports and other relevant documents. Through this process a lot of very diverse information was gathered that helped understand many different aspects of the modern-era movement and its influence to the architectural design of the Texas A&M University campus.

Data Collection

In order to collect important data for the modern-era buildings, there were different methods that were taken that all led to important pieces of information. In this stage of the project, it was imperative to clearly define the audience that was going to be exposed to the project, the most beneficial information to be gathered for the project, and the best way to present it to enrich the project. In this case, the audience would be open, to make possible to include people outside of the discipline of architecture.

Analysis and Curation

The research of the modern-era project not only consisted in collection of data, but also how the information is interpreted, understood, synthesized and curated into a project that is straight-forward about the findings. Through organizing the most important pieces of information related to the architectural, historical context of the buildings, it made sense to also create supplementary artifacts that would help with the visualization of the project and its

findings. The process showed how the discipline of architecture is very complex and interrelated, influenced and shaped by social, economic, cultural and political movements and issues, affecting the ways in which even campus buildings are designed and how they affect the everyday life of the students, faculty and staff that experiences them.

Public Presentation

This experience of presenting to a public audience, answering questions and receiving feedback and suggestions, proved to be a very important step in the process of the research project. It opened the opportunity to hear different points of view from people of different academic backgrounds, that various perspectives of how the data is presented and what would be beneficial to add. The presentation made me think differently of the project because it made it clear, how unlike other projects being presented, this specific project was not aimed at answering a specific question, but rather to understand the influence of a movement in the design of a campus. After this realization, it made it easier to understand how to keep developing the project, aware that it is not leading to a specific result or answering yes or no to a question, but creating a new sense and understanding of the similarities, differences and characteristics of different conditions of the design of campus buildings.

Artifact

The main artifact that was created for the project was a digital database that started in the form of a spreadsheet that showed all the gathered information, in a straight-forward way through a table. However, after the public presentation it was suggested that all the collected information could also be shown in a more visual form, such as a timeline of the construction of the modern-era buildings on campus.

In order to better visualize all the information, a collective timeline was created, which is shown in Figure 5, in the Creative Artifact section. This method proved to be a great way of understanding how the construction of the modern era buildings on campus could have been influenced by global trends within modernism. It also shows the architect or architecture firms involved in the design. One of the most peculiar cases found through research was that although the main architect for most of the earlier modern buildings was formally, the college architect, F.E. Giesecke, the person who actually did most of the designs was his student, Samuel C.P. Vosper.

At the bottom of the graphic, there is also a visual timeline of the building facades of some of the most culturally significant buildings on campus, including the Cushing Memorial Library, the Administration building, and the Memorial Student Center. These all share a similar architectural language, emphasizing verticality and utilizing brick as the main structure material.

Modern Buildings

There are numerous buildings on the Texas A&M University campus that were constructed during the Modern era, and are therefore, older in appearance and history. These serve as standing moments of the past, that give an insight into a way of thinking and living. They signify specific moments in history, both of the college and the world. However, many of these types of buildings are currently underappreciated and understood, because they are, unfortunately, not as recognized as the more historic structures.

Because of this, it is very common for many campuses across the United States to see older buildings and immediately think of ways to restore or renew them, so the college can have the latest state-of-the-art or other more contemporary forms of structures. However, there are

many motives that support the preservation of these modern structures, including historical, social, cultural, architectural, sustainable and even financial reasons.

Sustainably, there are numerous reasons why preservation of these buildings would be a good idea. The process of demolition, cleaning and restoring the area would require the use of a lot of energy, which would in turn cause pollution. Not only this, but it would also require the making, use and transportation of materials for the new structure, resulting in more pollution and unnecessary expenses. On the other hand, if instead of demolishing the building, there would be an effort to reuse or repurpose it, there would be a lot of both sustainable and financial benefits as well. If the exterior of the buildings is maintained, then the cost of construction would be significantly lowered and it would mean less wasted material.

Even though these prove to be valid reasons for preserving a building, there are also reasons for maintaining most of the structure and repairing, instead of reconstructing. The standing structure, although not widely recognized, is a symbol and moment of historical and cultural significance. These modern era structures show influences from the period after the Great Depression and Pre and Post World War II. This affected how the architects of the time prioritized the image of the building and what they represented for the college, such as the idea of imposing a sense of power, strength and stability. These structures have stood through times of struggle and represented strength for people, which is why these conditions should be understood and taken into account when considering the significance of these experiences and how they helped shape the college.

Architecturally, these structures from the modern era represent and can be understood in many scales. They can be analyzed from an urban scale of how they fit into their context and how they shifted the organization of the campus its development, as well as defining different

spatial conditions for it. The buildings can be studied based on the exterior to interior relations, and how the spaces interact with each other. In a smaller scale, they can be seen in terms of materiality, structure, ornamentation, and other important aspects that relate to their individuality, while also drawing a common architectural language among them.

The preservation of Modern movement architecture is imperative for conserving a not only historically, but also aesthetically and even culturally diverse campus. Understanding this with the perception that relatively new buildings can also be part of a heritage. This is why it a responsibility of the architects, urban planners, and other designers to understand and share these reasons, advocating for preservation of these structures, not because of fear of letting go of the past, but as a formal reminder, learning from it and continuing the development of new ideas, taking past context into account.

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CREATIVE ARTIFACT



Fig. 2. Richard Coke Building Front Elevation Drawings.

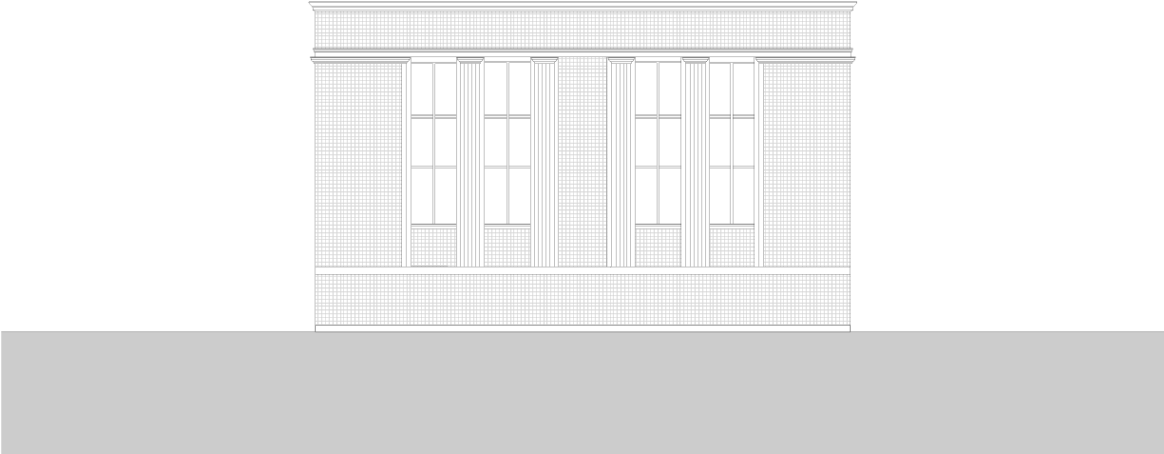
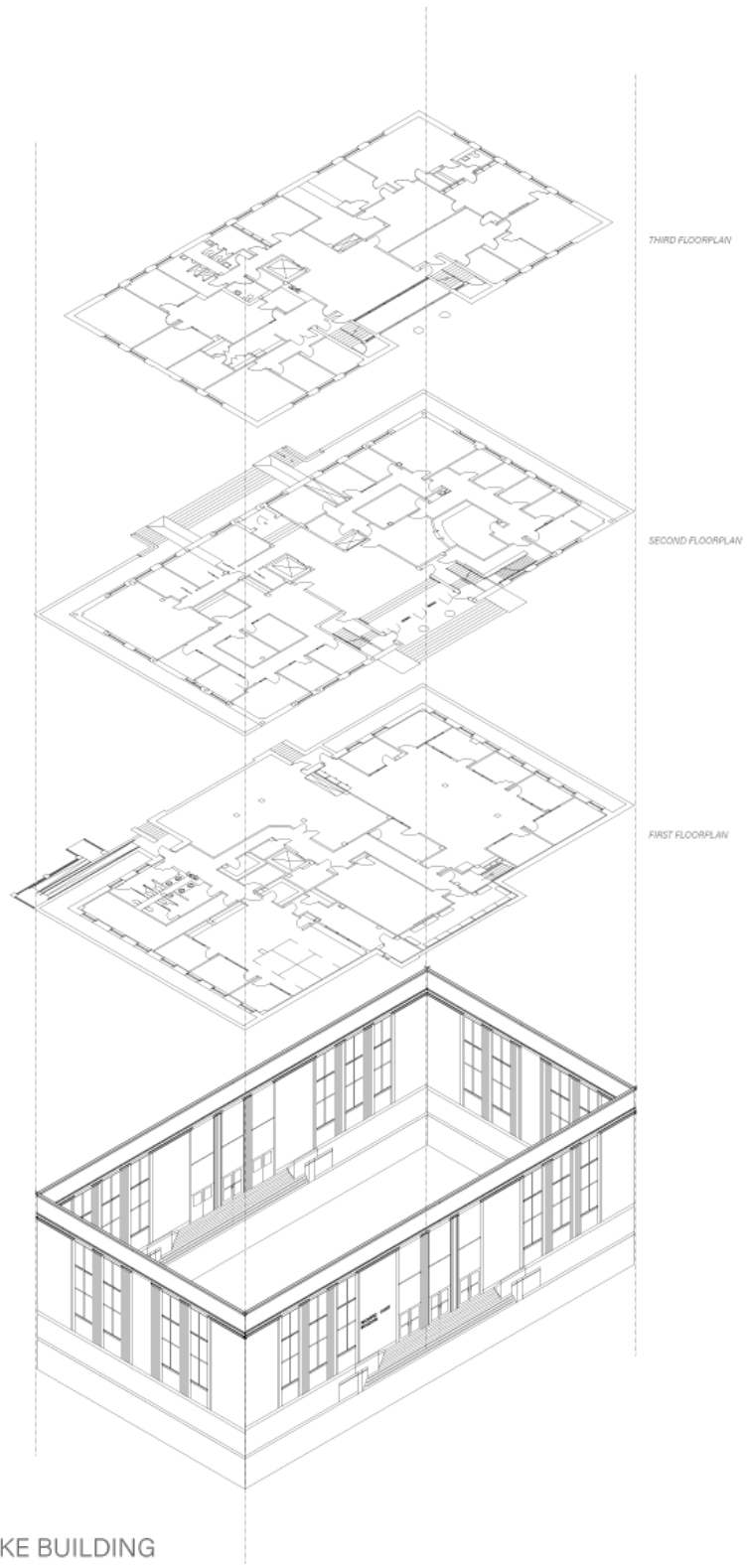


Fig. 3. Richard Coke Building Side Elevation Drawings.

The elevations in Figures 2 and 3 were created to understand the architectural elements of the facades of the building. This enables the exploration of the exterior and interior relations of the building and how it works spatially in both senses. The process of creation of these architectural drawings was through observation in person, taking photographs of the facades and recreating them on the 3D modeling software, Rhinoceros, and post-processing of linework was done utilizing Adobe Illustrator program.

The exploded isometric drawing shown in Figure 4 is an architectural drawing that seeks to help visualize the relations between the exterior facades of the building and the interior spaces of the structure. This is done by showing the outer shell of the building in the lowest level, while showing the three level floorplans stacked over it, making it possible to see the different divisions of space and how they compare to one another. The architectural drawing was created by using the previously made elevations, to create the outside envelope of the building. Then, the three level floorplans, which were made available by the university, added and edited to be visually stacked over one another. This process was done on the 3D modeling software, Rhinoceros. Then, the linework was taken into Adobe Illustrator and for post-processing details.

The Modern Era Building Collective Timeline shown in Figure 5, was created in order to visualize the construction of the buildings on campus during the different modern era movements. This would help to see how the design process of these buildings were influenced by the different movements. In addition, it also helps see the correlations of the architects that designed them, since some were the university architect of the time, while others were privately owned architecture firms. The timeline also shows images of the facades of some buildings, adding another layer of visual understanding for the timelines. This was created on Adobe Illustrator with information previously collected throughout the year on a digital spreadsheet.



RICHARD COKE BUILDING

Fig. 4. Richard Coke Building Exploded Isometric Drawings.

MODERN ERA BUILDINGS COLLECTIVE TIMELINE

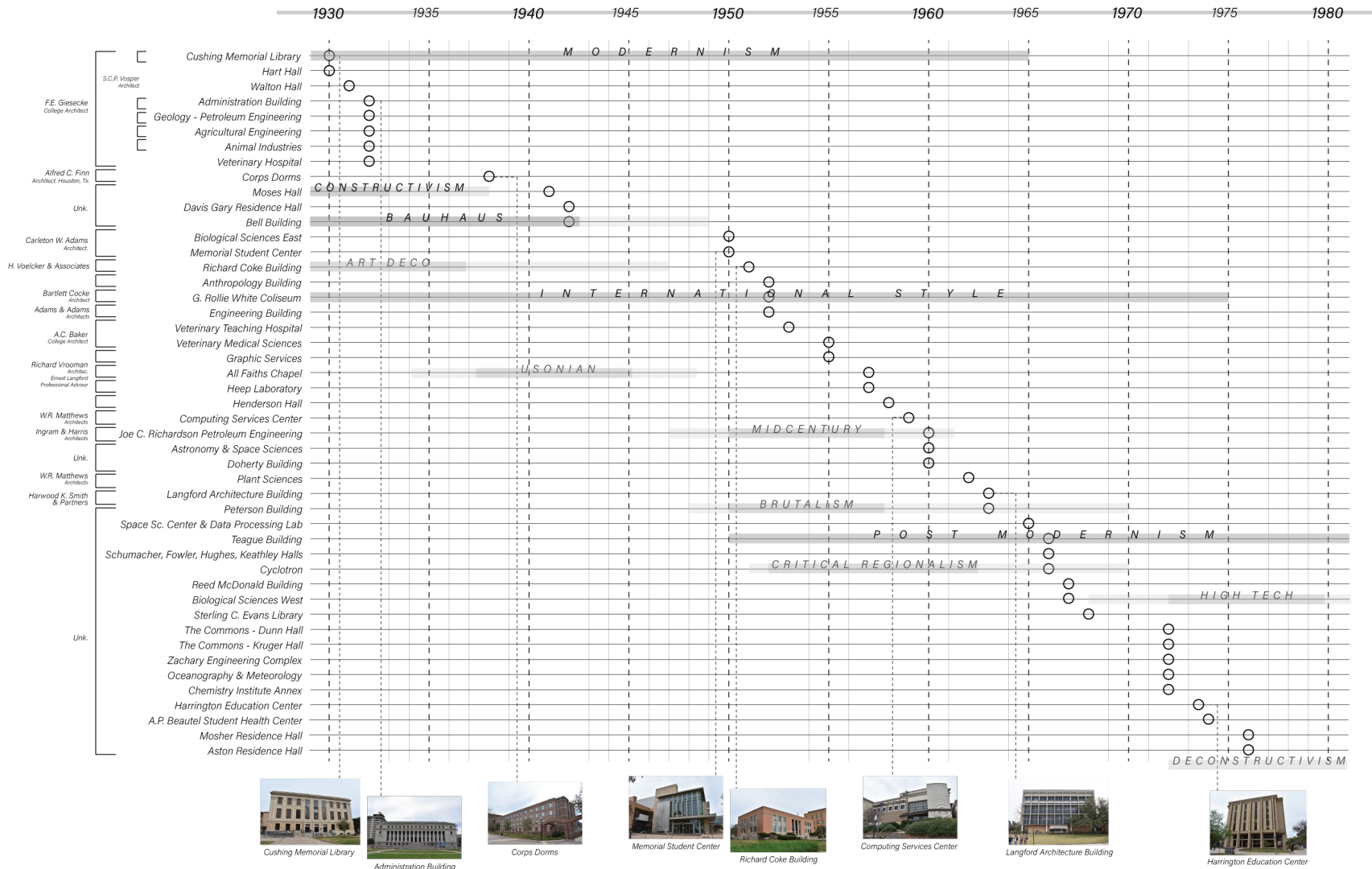


Fig. 5. Modern Era Collective Timeline.