The Creation of the Cal Poly Architecture Department and the Decline

of Multi-Disciplinary Education

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Abstract: The creation of the architecture department spurred the decline of multidisciplinary education among the College of Architecture and Environmental Design (CAED). This development led to the separation and hierarchy of majors within CAED as it destroyed the communal nature of an experimental and innovative teaching approach. The process of this change reveals the detrimental impacts to the faculty, curriculum and culture of the department. The faculty was divided, leading to a less interdisciplinary curriculum and a less communal nature of innovative learning among the College community.

The origin of the California Polytechnic Architecture Department is surrounded by myths and legends. Notable icons include: the great hero, George Hasslein, the two professors Jim Bagnall and Don Koberg who singlehandedly wrote a curriculum, and Paul Neel, the first department head who paved the way. Though some of these myths contain ribbons of truth, the development and folklore of the Architecture Department and how it changed the course of the program is quite murky.

Seeing as the program and professors' individual curricula developed discreetly under the title of Architectural Engineering, little is available regarding the early content of the system aside from anecdotes of the sixties at Cal Poly. The first classes offered—titled "Architectural Drafting"—fell under the regard of the Division of Engineering in 1932.[1] These were explicitly "not intended to train architects," but rather to prepare students to work in construction or building engineering. Architectural drafting would be moved from "Industrial Curricula" to

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[1] Bulletin, Circular of Information and Announcement of Courses, 1932, Course Catalogs, Special Collections and Archives, Cal Poly, San Luis Obispo, CA.

Architectural Engineering prior to becoming an individualized course of study. Due to the intertwining and inseparable origin of architectural drafting studies at Cal Poly, the specific beginnings remain difficult to pinpoint. The Architectural Drafting Department under the Division of Engineering established in 1941 would be followed by the Architectural Engineering Department in 1951 led by George Hasslein.[2]

The architecture department's informal development under the Architectural Engineering department, was formed as a fabricated "creative deceit."[3] This was George Hasslein's description of how he developed a design program in a school where practicality and skill-based learning were championed over softer sciences and arts. To pinpoint the origin of the architecture department, identifying the separation from the School of Engineering is a first step; however, much of its early days were spent in informal studies and curricula.

In 1964, the first formal recognition of architectural design studies came in the renaming of the program as the Department of Architecture and Architectural Engineering wherein students could earn a Bachelor of Architecture or a Bachelor of Science. Finally, in 1967, the School of Architecture and Environmental Design was created, which encompassed architectural engineering, architecture and city and regional planning to begin with.[4] Looking towards the growth of the School of Architecture and Environment Design illuminates who the primary players in the creation of departments were. How did the formalization of an architecture

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[2] Bulletin, Circular of Information and Announcement of Courses, 1951, Course Catalogs, Special Collections and Archives, Cal Poly, San Luis Obispo, CA.
[3] Fillip, Janice *The Vision: Founding the College of Architecture and Environmental Design.* (Los Angeles: William Kaufmann Inc, 1983), 46.
[4] Edmundson John. "ARCE Program History." Research paper commissioned by the ARCE department, San Luis Obispo, 2007.

department impact the culture and pedagogy of a program? How did the faculty involved in this formation influence this growth and the course it took?

Janice Fillip created an anecdotal retelling of the development of the School of Architecture and Environmental Design (SAED), in 1983 which forms a collective history of the School's growth from gathered personal accounts. In this collection, the development of the college, its curriculum and its spectacular culture is formulated around the actions and work of George J. Hasslein.[5] The singular focus on Hasslein poses Fillips' work as nearly a biography of a particularly important faculty member and his work to change the course of a study at Cal Poly.

Historiography:

Cal Poly's educational practices in architecture were, at the time, in harsh contrast to many others, including the University of Southern California (USC) and University of California Berkeley (UCB). Those schools followed a Beaux-Arts pedagogy where design was prominent and the dirty work of construction stayed far from the studio.[6] Beaux-Arts, a French school renown for its architectural education from 1830 through the end of the 19th century, focused primarily on developing a wide culture of artistic mediums and hypothetical design where projects may never be built, nor even capable of being built.[7] The Beaux-Arts complex formed the curricula and pedagogy used by widely respected schools including Cornell and the aforementioned Californian schools. Jim Bagnall, an early professor in architecture at Cal Poly,

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[5] Fillip, *The Vision.*
[6] Ritch, John *"Architectural Education in the United States," The American Architect* 24 (1888): p. 85-89, https://www.jstor.org/stable/901128.
[7] Cret Paul, "The Ecole des Beaux-Arts and Architectural Education," *Journal of the American Society of Architectural Historians*, Vol. 1, No. 2 (1941): p. 3-15

attended UCB as a student and recounts visiting and looking for what made those schools the "better" schools (as they claimed to be) for architecture. His only finding was that the students learned the same material but actively did less.[8]

This format differed greatly from the "learn by doing" nature Myron Angel fostered throughout the school with its vocational beginnings. Angel and President McPhee shared integral values, hard work and intensity of practical labor, both of which which influenced the University tremendously.[9] This value was echoed in discussion with Jim Bagnall in which he describes the faculty as men who came out of war into a work force where employment was the sole desired outcome from an education. [10] The education at Cal Poly could provide the skills needed to be an advanced worker and draftsman, a marketable career path. This pedagogy required application of studies, active participation, and continued practice of material by students.

This style of education proved itself revolutionary and highly progressive in the following decades, as an inter-disciplinary and well-rounded architectural education became the standard. Joan Ockman explains this as a growing interconnectedness between mechanical engineering, structural engineering, landscaping architecture, city planning and numerous other fields that all play a role in the development of a conscientious building.[11] With this development in the field, for schools like UCB and USC, this meant more time was needed spent on

[8] Jim Bagnall, interview by author, San Luis Obispo, February 6, 2020.
[9] Myron Angel, *History of the California Polytechnic School at San Luis Obispo, California,* (San Luis Obispo: Tribune Print, 1907), p. 15-17.
[10] Jim Bagnall, interview by author, San Luis Obispo, February 6, 2020.
[11]Ockman Joan, *Architecture school: three centuries of educating architects in North America* (Cambridge, Mass.: MIT Press, 2012).

experimenting with materiality and construction methods and less theoretical design in art studios.

Cal Poly's early focus on design as a multi-faceted field and its prioritization by faculty is evident in the admiration Buckminster Fuller expressed for Cal Poly.[12] A name well connected with studying all that is embodied in a building (a Buildings Weight) and known for his full scale experimentation, Fuller visited the school on numerous occasions to observe students experiments and design studio work. His design for a geodesic dome was constructed by Architectural Engineering students and resides in Poly Canyon.[13] In this manner, Cal Poly led the forefront of schools moving towards cumulative design theory as students designed, experimented with, and constructed projects.

The reorganization of the School of Architecture and Environmental Design in 1979 led to growing tensions that altered the course of the program and redefined the "learn by doing" ethics of the education. The creation of the architecture department spurred the decline of multidisciplinary education among the College of Architecture and Environmental Design (CAED). This development led to the separation and hierarchy of majors within CAED as it destroyed the communal nature of an experimental and innovative teaching approach.

As the architecture department continues to evolve and shift in its prominence as an innovative "learn by doing" focused school, it is important to acknowledge where the prominenceoriginated. The long-lasting impact of the legendary culture developed in the fifties

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[12] Fillip, *The Vision.* 52.
[13] El Mustang, January 25, 1957, Vol. 18 Issue 14 (Associated Students of California Polytechnic College, San Luis Obispo, California) Special Collections and Archives, Cal Poly, San Luis Obispo.

and sixties within architecture and architectural engineering began its deterioration with the creation of the Architecture Department in 1979.

Pre-Departmentalization:

Academically, George Hasslein's "creative deceit" ran rampant among architecture. A program born from an engineering program with a flair for the artistic, architecture was defined by the practicality and intrigue of achieving a more perfect building. All students would begin with the same two years of courses and after this point, could specialize into structural engineering, regional planning or architecture. This meant that curriculum overlap was abundant and intermingling of students interested in different aspects of architecture was standard. The learning spaces themselves, the old barracks—a remnant of the wartime changes throughout the campus—were rebuilt, redesigned and repurposed for the use of architecture students.[14] As they built and redefined their study areas, a commitment and responsibility for their work and program grew.

Seeing as many of the professors who established the program were professionals who had left their work to fight in the war, and many of the students themselves were drafted, and returned to school on the GI Bill, a strong community was an inherited factor of the Cal Poly culture. The faculty was very close and committed to the school; Bagnall expressed a general commitment to something recognized as important and different, as many believed the program proposed the potential to be greater than itself.[15] George Hasslein would stop by after dinner with his family to check in on the studios and advise students in off hours. Professors and students

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[14] Fillip, *The Vision.* 26.
[15] Jim Bagnall, interview by author, San Luis Obispo, February 6, 2020.

celebrated holidays together.[16] The faculty and students took a responsibility in their work and commitment to a program that offered both with a livelihood and supportive community.

The architecture program administration preceding 1978 was composed of five directors within the SAED, notably referred to as "non-department heads" by George Hasslein in his ever-present reluctance to change his system.[17] These directors were informally assigned to each of the five paths of study—architectural engineering, architecture, city and regional planning, construction management and finally landscape architecture—and their interactions were defined by compromise to get what they desired from the control of George Hasslein as the Dean of the School.[18] This resulted in a highly interdisciplinary School wherein classes had students of intermixed majors for two complete years as well as professors who taught across majors. However, in 1978, big changes approached as George Hasslein was pressured by President Kennedy and the SAED faculty to organize into a School with departments and department heads. [19]

The Departmentalization Process:

During the process of departmentalization, tensions were high among the faculty which inevitably impacted the education despite best efforts to avoid this. As the program grew and new professors were hired, a growing unrest ultimately led to the change into a departmentalized School. As Cal Poly's architecture school gained notoriety across the country, George Hasslein had the opportunity to hire professors from across the country. New faculty from eastern schools

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[16] Fillip, *The Vision.* 31.
[17] Jim Bagnall, interview by author, San Luis Obispo, February 6, 2020.
[18] Paul Neel, interview by author, San Luis Obispo, February 6, 2020.
[19] Jim Bagnall, interview by author, San Luis Obispo, February 6, 2020.

including Cornell had taught and attended schools with different systems and longed for such familiar organization and teaching habits.[20] Though this new prominence gave George Hasslein great hiring power, this authority also resulted in him bringing in influential voices with it. Portions of the faculty expressed the desire to keep the new and innovative organization of Hasslein's formation while other factions proposed a more standard and democratic organization. Despite efforts to prevent the tensions from impacting the teaching and academics, conflict between professors who espoused the Cal Poly method and new East coast professors led to a wide range of teaching styles throughout the College. Paul Neel described this as the "learn by doing" methodology being "diluted by new faculty."[21]

These growing pains led to a drastic change in the faculty dynamic as the team-based nature and community focused culture dissipated. Bagnall recounts huge faculty meetings held to discuss the process and what exactly it would mean; however, faculty would usually leave confused and irritated. In 1978, a vote was held to determine whether the school should separate out into departments. This vote was highly divisive leading to voting ballots being ripped up, ignored, or being returned with a denial to vote without more information.[22] A poster from Architectural Engineering professor, Ray Hauser, was nailed to his door calling for the faculty's refusal to vote without another "schoolwide faculty meeting with the committee present" where issues they valued could be further discussed. [23] This poster, scrawled in red marker,

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[20] Jim Bagnall, interview by author, San Luis Obispo, February 6, 2020.
[21] Paul Neel, interview by author, San Luis Obispo, February 6, 2020.
[22] Voting Ballots, 1978, School of Architecture and Environmental Design Collection, Box 2, Folder 131", Special Collections and Archives, Cal Poly, San Luis Obispo, CA
[23] Posters, Voting Ballots, 1978, School of Architecture and Environmental Design Collection, Box 2, Folder 131", Special Collections and Archives, Cal Poly, San Luis Obispo, CA

demonstrates the divisive and controversial nature of this vote and the process by which departmentalization was to occur.

Even with such high tensions and apparent unrest, no reporting in the student newspaper, El Mustang, within the month of this vote or upon the outcome of the departmentalization was published.[24] With this, it would seem that the tensions and disagreements among faculty were kept, evidently, among faculty.

Despite a strong desire from George Hasslein to keep the School as it had run since its creation, great pressure from the faculty and University President Kennedy (at the complaints of faculty) eventually won out. George Hasslein expressed feeling "pressured" into departmentalization, a truth confirmed by Jim Bagnall who said he was undoubtedly pushed into implementing such changes.[25][26] George Hasslein was reluctant to give up his overarching control of the School, something that would be subdivided through departmentalization. Faculty felt hurt by either being ignored in their desires or by being pressured to give up the organization that brought such unity to the SAED. Ultimately, this process resulted in the highly divisive departmentalization at the behest of President Kennedy who was forced to step in to speak for faculty who felt ignored.

Post-Departmentalization:

Following the departmentalization, the School was split into five majors with five department heads and one dean as well as numerous other administration roles such as

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[24] El Mustang, May 10, 1978, Vol. 42 Issue 93 (Associated Students of California Polytechnic College, San Luis Obispo, California) Special Collections and Archives, Cal Poly, San Luis Obispo.
[25] Fillip, *The Vision.* 79.
[26] Jim Bagnall, interview by author, San Luis Obispo, February 6, 2020

fundraising. Paul Neel was the first Department Head for Architecture and George Hasslein, despite his reluctance to begin this process, served as the Dean of SAED (which would be renamed College of Architecture and Environmental Engineering, CAED, in 1984.) Regardless of hesitations to change and the threat to his authority over the school Hasslein does interview with Cal Poly Radio and expressed his pride in the school and reaffirms his commitment and faith in the SAED.[27]

Academically, it became necessary for students to choose a major from the outset as many other Cal Poly Schools required. This led to less unified classes during the first two years and as classes were organized into departments, less overlap was available to students who wanted to experience the other majors within the CAED.[28] This lack of mandatory interdisciplinary interaction led to the development of a perceived hierarchy as well.

These changes and the residual hurt people felt from this process led to a less communal faculty life and a more rigid social hierarchy. Students and faculty relationships became more formal as professors were instated not as people who work alongside the students but rather those responsible for teaching them.

As intended, there could not be more oversight of the School by the University and the influence from University administration was evident. This led to increased departmental funding politics as the SAED budget was split up by the majors and then spent as deemed fit. How much each school received was a result of enrollment; however, this still instated a power dynamic among the larger programs and which one got to be prioritized. In the beginning,

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[27] Interview with George J. Hasslein, October 10, 1970, UA0107 University Archives Audio-Visual Collection, 0107_ua_000028, Special Collections and Archives, Cal Poly, San Luis Obispo.
[28] Paul Neel, interview by author, San Luis Obispo, February 1, 2020.

tensions were obvious as the Architectural Engineering Department, second largest behind Architecture, consistently overspent their budget in an indignant demonstration of disapproval.[29]

Conclusion:

Summarily, the changes departmentalization brought to the architecture department are as follows. Academically, the courses were purposefully less interdisciplinary, and the curriculum focused along significantly more singular career paths. The culture of the faculty was more hierarchal between majors as funding and perceived importance interfered with teamwork. The student and faculty community became more formal as an increased hierarchy among students, professors, and department heads separated the parties into more classical roles. Finally, the dynamic between the university on a whole and the School itself became more integrated and the independently functioning era of the program came to an end. These changes ultimately lead to less connection between people and ideas and detrimentally impacted that which the program was built upon.

The establishment of the architecture department prompted the decline of multidisciplinary instruction among the College of Architecture and Environmental Design (CAED). This is not to say that this departmentalization was completely without merit or purpose, but rather that a specific culture of education was lost in the reorganization. This development led to the separation and hierarchy of majors within CAED as it destroyed the communal nature of an experimental and innovative teaching approach. Beginning as a school defined by the vocational nature of engineering and therefore architecture, the departmentalization of CAED defined a culmination of an era. Despite the end to a specific

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[29] Jim Bagnall, interview by author, San Luis Obispo, February 6, 2020.

period of multi-disciplinary education in the School, Cal Poly remains highly progressive in teaching architecture as part of a greater system of construction, engineering, and planning,

Since this initial reluctance to change, the school has settled into the organization of departments. The Cal Poly architecture program has been ranked highly by Design Intelligence program ranking and incorporates innovative field work and best practices into education.[30] Cal Poly has since been a leading school in the architecture field is known for incredible interconnectedness among related fields.

Though the aspects of the heritage and history of this "learn by doing" practice remains at Cal Poly, a great era defined by a community that desired an innovative approach to education as culminated by an innovative approach to administrative organization has concluded. However, Cal Poly CAED does remain more integrated than many architecture schools and programs and this is a result of the hard work of those names that began this story. These few professors who have made it their lives' work to support the legacy of the "learn by doing" Cal Poly architecture program have redefined the future of this very education. Without the efforts of a few people who carried on the support of students, multidisciplinary education and the story of the school, that which defined the school as innovative and revolutionary could have been lost.

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[30] "America's Top-Ranked Architecture and Design Schools." https://www.di-rankings.com/, accessed March 11, 2020

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