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The Origins of Thomas Jefferson's Academical Village at the University of Virginia

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Thomas Jefferson's planning of the University of Virginia forever changed the design of American universities. The plan of the academical village, first promoted to the University board in 1817, was designed as a series of freestanding pavilions. The structures were clustered in parallel rows and connected by colonnades around a central lawn. This plan was an extreme departure from the classic American collegiate campus; prior to Jefferson's revolutionary plan, each of the nation's first colleges consisted of a single, large building.[1]

Jefferson saw his design as advantageous, for he believed that smaller, solitary structures would best protect students from disease. This concept can be attributed to Jefferson's longstanding interest in medical science and his time in France. Between 1778 and 1785, while he was serving as the American ambassador in Paris, Jefferson took interest in the debate over what model would replace Paris's outdated hospital, the Hôtel-Dieu.[2] The winning plans for four alternative hospitals illustrated centralized lawns surrounded by pavilions connected by covered colonnades. Although the hospitals were never built, their plans undoubtedly influenced the layout of Jefferson's academical village.

When designing the University of Virginia, Jefferson also incorporated his interest in Roman architecture; each of the pavilions recall structures illustrated in Palladio's *Four Books of Architecture*, and the Rotunda at the head of the village is, in essence, a miniature Pantheon.[3] The design of the academical village reveals a successful application of Jefferson's multifaceted architectural and personal interests to a collegiate setting. An innovative echo of French hospital design and antique Roman temples, Jefferson's university plan served as a model for subsequent college campuses across the country.

While studying at the College of William and Mary in Williamsburg, Virginia, Thomas Jefferson's architectural education began. He purchased a treatise on classical architecture in a shop close to the College, and this document was the first of many architectural texts he would acquire and study.[4] Jefferson's passion for architecture is reflected in a significant body of architectural work, including his Monticello estate, the Virginia State Capital, a number of private homes, and designs for an addition to the College of William and Mary's main building. In the late 1700's, after a series of his proposals for educational reform at the College of William and Mary were rejected, Jefferson realized that the College would never grow to become the

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[1] Mary N. Woods, "Thomas Jefferson and the University of Virginia: Planning the Academic Village." *Journal of the Society of Architectural Historians* 44, no. 3 (October 1985): 266-283. http://www.jstor.org/stable/990076, 267.

[2] Louis S. Greenbaum, "Thomas Jefferson, the Paris Hospitals, and the University of Virginia." *Eighteenth-Century Studies* 26, Special Issue: Thomas Jefferson, 1743-1993: An Anniversary Collection (Summer 1993): 607-626. http://www.jstor.org/stable/2739485, 608.

[3] The Rotunda- The University of Virginia. "History". Accessed November 26, 2010. http://www.virginia.edu/uvatours/rotunda/rotundaHistory.html

[4] Patricia C. Sherwood and Joseph Michael Lasala. "Education and Architecture: The Evolution of the University of Virginia's Academical Village," in *Thomas Jefferson's Academical Village: The Creation of an Architectural Masterpiece,* ed. Richard Guy Wilson, 9-45. (Charlottesville: University of Virginia Press, 1993), 9.

publicly funded liberal institution he dreamed of for Virginian students.[5] In 1800, Jefferson wrote a letter to a friend explaining his intentions to establish a university that he believed would better serve the educational needs of students, "we wish to establish in the upper country, and more centrally for the State, an University on a plan so broad and liberal and *modern*, as to be worth patronizing with the public support".[6] His ideas gained the support of Virginia Governor L.W. Tazewell in 1804, spurring a movement to establish a public university in Virginia.[7]

Before any plans to establish a new university in Virginia were confirmed, Jefferson had already started to draft the institution's design.[8] He knew that he would organize the lecture halls and dormitories in small structures; He wrote in 1804, "Large houses are always ugly, inconvenient, exposed to accident of fire, and in bad cases of infection. A plain small house for the school and lodging of each professor is best… [The] University should not be an house but a village".[9] This idea garnered support, and plans for a new educational institution moved forward. By 1810, a fund for the proposed university had been established by the Virginia legislature. In 1814, Thomas Jefferson gained a position on the board of trustees for Albemarle Academy, a secondary school that had been in development since 1803, but had not yet been built. Jefferson used this appointment as a springboard to further his plans for his university, intending for the project to shift its focus from the Academy to his proposed university.[10] His intentions were made clear when the name of the institution was changed from Albemarle Academy to Central College. [11]

Although the board of trustees had decided that the College was to be constructed in Charlottesville, Jefferson had yet to gain the Senate's support. Jefferson continued to develop a blueprint for Central College, even before the funding for what Jefferson hoped would become the state's public university was formally approved.[12] He collaborated with two architects, Dr. William Thornton and Benjamin Henry Latrobe, who aided Jefferson in solving logistical problems and in designing the individual pavilions that would serve as academic buildings and dormitories.[13] Thornton was a seasoned amateur architect and his most notable success was George Washington's acceptance of his plan for the United States Capitol.[14] Latrobe, credited as America's first formally trained architect, was responsible for several large-scale projects, including a marine hospital and a military academy, which Jefferson greatly admired.[15] In 1817, the cornerstone of Central College's first pavilion had been laid, and shortly after, the Virginia senate approved Central College as Virginia's official state university.

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[5] Sherwood, 11.
[6] Sherwood, 11.
[7] Sherwood, 11.
[8] Sherwood, 11.
[9] Sherwood, 11.
[10] Sherwood, 13.
[11] Sherwood, 13.
[12] Sherwood, 15.
[13] Sherwood, 16.
[14] "Dr. William Thornton," Architects of the Capitol, http://www.capitol.gov/html/TOP_2010083029442.html.
[15] Woods, 277.

The origins of the University of Virginia's academical village have been subject to much speculation.[16] Jefferson had conceived the idea of replacing the traditional American campus plan of a single, large building with a string of pavilions housing lecture halls and dormitories long before arrangements for the University had been confirmed. It has been suggested that French hospital planning was the inspiration behind the University's ground plan.[17]

During his ambassadorship in Paris from 1784 to 1789, Thomas Jefferson witnessed a wave of urban development. Paris was in the midst of developing a series of public and private building projects, including churches, monuments, schools, theaters, and hospitals.[18] Jefferson, as an architect, took interest in many of Paris' construction projects, but the programs that he saw as the most intriguing related to the redesign of the hospital system.[19] He was particularly drawn to this project due to his longstanding interest in health and science, especially in the public sector.[20] This passion is evidenced by his efforts to aid soldiers affected by smallpox during the Revolutionary War, his advocacy for sanitary living conditions in some of America's largest cities, and his support for the smallpox vaccine and mandatory vaccination.[21] A study of the redesign of Paris's largest hospital, the Hôtel-Dieu, reveals that Jefferson undoubtedly looked towards this project for inspiration while designing the University of Virginia's academical village.

Since the Middle Ages, the center of Paris's health system was the Hôtel-Dieu. Erected by the church, it was originally a center for impoverished Parisians and for foreigners, who required lodging during their travels to Paris. The Hôtel-Dieu slowly began to admit Parisians requiring medical assistance, and with the sponsorship of the church, eventually shifted its focus entirely to health care. The hospital's climbing mortality rate spurred the Paris Academy of Sciences to investigate the hospital in the late 1700's.[22] A study conducted by Jean-Sylvain Bailly, Paris' future mayor, on behalf of the Academy was published in 1785.

The report shed a new light on the Paris's healthcare system, resulting in public outrage.[23] It depicted the Hôtel-Dieu as an outdated deathtrap, filthy, and densely populated. The 3,000 patients of the hospital were forced to sleep in beds with several other patients, some with dissimilar diseases.[24] Bailly feared that the hospital was a fire hazard and was likely polluting the water supply and promoting the spread of infection.[25] The report concluded that the hospital was flawed by its location, in the center of the city adjacent to the Notre Dame, and by its design; the hospital was one, large block-like structure.[26] The architects who designed the building in the Middle Ages were unaware that the Hôtel-Dieu would transition to become a hospital, and would not have understood that such a design aided the transmission of disease. The Hôtel-Dieu also lacked the resources and space to carry out scientific research, so innovations in medicine were

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[16]   Richard Guy Wilson, "Jefferson's Lawn: Perceptions, Interpretations, Meanings," in *Thomas Jefferson's Academical Village: The Creation of an Architectural Masterpiece,* ed. Richard Guy Wilson, 47-72. (Charlottesville: University of Virginia Press, 1993), 62.

[17] Greenbaum, 607.

[18] Greenbaum, 608.

[19] Greenbaum, 608.

[20] Greenbaum, 622.

[21] Greenbaum, 622.

[22] Greenbaum, 608.

[23] Greenbaum, 609.

[24] Greenbaum, 609.

[25] Greenbaum, 609.

[26] Greenbaum, 609-610.

at a virtual standstill.[27] The study prompted a discussion between scientists and architects, supported by King Louis XVI, who worked together to formulate a plan for a series of new hospitals.

In 1787, it was decided that four new hospitals, designed to house 1200 patients each, would be erected outside of the city.[28] The plans for the four hospitals were drafted by Jean-Baptiste Le Roy, with assistance from scientists Pierre-Samuel Du Pont de Nemours and the Marquis de Condorcet, each of whom were friends of Thomas Jefferson.[29] The model that was developed by Le Roy consisted of a lawn flanked by 6 pavilions on either long side (Figures 1-3). The pavilions were to be connected by covered walkways to protect patients from harsh weather conditions. At the head of the lawn, a central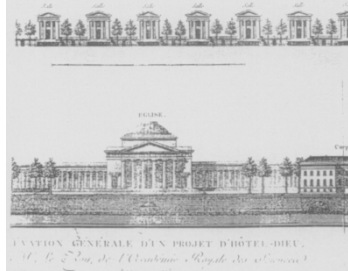 chapel would be erected. This plan was reminiscent of the Marly-le-Roi, Loius XIV's royal residence, where 13 pavilions were arranged around a sprawling garden,

Figure 1: Design for Le Roy's proposed hospital

Figure 2: Plan for proposed Paris hospital

with the royal pavilion at the head (Figure 4).[30] The plans for the new hospitals also recalled the pavilions at the 1784 naval hospital in Plymouth, England (Figure 5).[31] The new plans to replace the Hôtel-Dieu offered "superior ventilation, economy, efficiency, cleanliness, privacy and safety while cutting down the risk of fire and contagion, and reducing noise".[32] Because the new hospitals featured separate pavilions, patients could be divided by disease. The model would also allow for certain pavilions to be designated as space for scientific research and medical lectures.
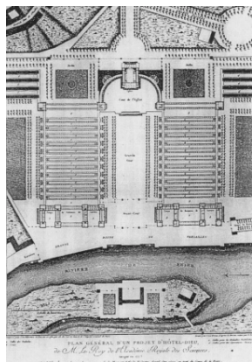

Figure 3: Plan for proposed Paris hospital

Today, the Hôtel-Dieu remains in the center of Paris. It has undergone several renovations, but was never replaced by the four proposed hospitals designed by Jean-Baptiste Le Roy. Although the hospitals were never constructed, their ground plans served an important purpose: they were the inspiration behind Thomas Jefferson's academical village. Thomas Jefferson looked towards the design of the new hospitals for several reasons: the hospitals were planned to accommodate a large number of residents, as was the University, and both Le-Roy and Jefferson looked towards designs that would reduce the risk of fire.[33] Also, noise would be reduced and professors could maintain a level of privacy by living in apartments separate from student
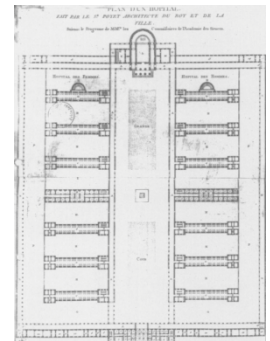

Figure 4: Marley-le-Roi

Figure 5: Plan of Royal Hospital at Stonehouse near Plymouth

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[27] Greenbaum, 610.
[28] Greenbaum, 610.
[29] Greenbaum, 611.
[30] Woods, 276.
[31] Woods, 275.
[32] Greenbaum, 611.
[33] Woods, 277.

dormitories.[34] Order needed to be kept in both the hospital and University setting, and Jefferson believed that it would be easier to police his segmented village than a single, massive facility.[35] But most importantly, both the planners of the proposed hospital and Jefferson were strongly concerned with health.[36] Jefferson felt that maintaining a standard of sanitation within the collegiate environment to protect students and professors from illness was of utmost importance. What better model to look towards than a hospital? The pavilion model would reduce the risk of transmission of disease, allow good circulation of air, and the covered colonnades linking each pavilion would protect University students from catching a cold in harsh weather.[37] Jefferson decided that a hospital model should be adopted in Charlottesville because it promised a healthier living and learning environment. He described his reasoning in letters dated in the early 1800's:

> An academic village instead of a large and common den of noise, filth and fetid air. It would afford the quiet retirement so friendly to study and lessen the dangers of fire, infection and tumult. This village form is preferable to a single great building for many reasons, particularly on account of fire, health, economy, peace and quiet.[38]

An examination of the University's ground plan reveals it is, indeed, based on the plans of the new French hospitals. Similar to the four proposed French hospitals, the academical village at the University of Virginia is composed of a "U"-shaped configuration of structures wrapped around a large lawn (Figure 6). The pavilions, connection by covered colonnades, adjoin on the far end of the lawn at a large Rotunda, much like the domed central chapels

Figure 6: The Academical Village at the University of Virginia

planned for each of the new hospitals**.** The structures are organized in four rows, with five pavilions in the first two rows on either side of the lawn (Figure 7). The outer rows, or "ranges," are composed of six "hotels," which were used as service buildings, and were built parallel to the rows of pavilions. Small dormitories occupied by students link the rows of pavilions and hotels. The topography of the lawn affects the relationship between structures; from some areas of the village's sloping gardens, the interplay of the buildings appears to be very linear, but from other viewpoints, the village seems maze-like.[39] To approach the academical village in the way that Jefferson intended, one must ascend three terraces, all oriented in the direction of the front of the Rotunda**.**

Although the ground plan of the academical village reflects

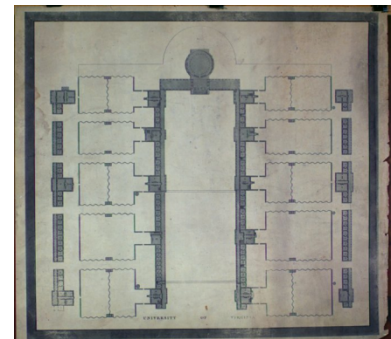

Figure 7: Plan of the Academical Village

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[34] Woods, 277.
[35] Woods, 277.
[36] Woods, 277.
[37] Sherwood, 17.
[38] Greenbaum, 623.
[39] Gary Wills, *Mr. Jefferson's University* (Washington, D.C.: National Geographic Society, 2002), 9.

French hospital planning, the design of the individual structures that formed Jefferson's University of Virginia campus have very different origins; the architectural style in which the Rotunda and the pavilions were built dates back to ancient Rome. Jefferson had begun to study Roman architecture long before he designed the University campus, and he had already acquired a multitude of texts that described the characteristics of decidedly Roman architectural forms, as well as documents that provided instructions for the reproduction of structures from classical antiquity. Such texts in Jefferson's possession included James Gibb's *Book of Architecture* and *Rules for Drawing the Several Parts of Architecture*, Roland Fréart Chambray and Charles Errard's *Parallèle de l'Architecture Antique avec la Moderne* as well as Palladio's *Four Books of Architecture*.[40] Jefferson drew on these books to create a series of structures that would not only accommodate the academic and residential needs of the University campus, but would act as teaching tools.[41] By living and learning in structures inspired by classical Roman temple form, students were exposed to the architectural style that Jefferson most admired. Jefferson described his intentions in a letter written in 1817:

> Now what we wish is that these pavilions they will shew [sic] themselves above the dormitories, [should] be models of taste and good architecture, & of a variety of appearance, no two alike, so as to serve as specimens for the architectural lectures.[42]

The document that was most influential in aiding Jefferson in creating a series of unique pavilions inspired by classical forms was Palladio's *Four Books of Architecture*.[43] The text, which was essentially a manual intended to serve architects interested in recreating structures from classical antiquity, was written by the Italian Renaissance architect Palladio and published in 1570. The text exposed Jefferson to important Roman buildings that would influence his work

Figure 8: Maison-Carree

in Charlottesville, including the Temple of Fortuna Virilis, the Baths of Caracalla and the theatre of Marcellus.[44] The document also provided the measurements necessary for Jefferson to build the Rotunda, a miniature version of the Pantheon, at the head of the academical village. The Pantheon, an ancient Roman temple and one of the most widely replicated classical forms, would serve as a model for Jefferson's central library. Another source of inspiration for Jefferson while drafting the designs for each of the pavilions was his visit to the Maison-Caree in Nimes (Figure 8). He noted in a letter that his time spent in proximity to the temple was the "second time I had been in love since I left Paris" and that he gazed at it for hours, "like a lover at his mistress".[45] His love affair with the architecture of Rome shone at the University of Virginia.

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[40] Sherwood, 14, 16.
[41] Woods, 268.
[42] Sherwood, 17.
[43] Wilson, 54.
[44] Woods, 268.
[45] John S. Patton, *Jefferson, Cabell and the University of Virginia* (New York: The Neale Publishing Company, 1906), 182.

The basic formula for the interior of each pavilion was the same: schoolrooms on the lower level and two rooms on the second story for the professor (Figure 9). Square brick pilasters with a Tuscan entablature would link each of the pavilions. Marble was brought from Cararra in Italy to fashion the capitals.[46] The pavilions were built in brick, with the aforementioned Italian marble accents. What varied from structure to structure were the designs of the pavilions' exteriors; Jefferson strove to incorporate as many elements of classical architecture as possible, while maintaining a level of cohesion.[47] Each pavilion façade was designed to be slightly different, with distinct heights and numbers of columns, as well as the type of order used. Corinthian, Dor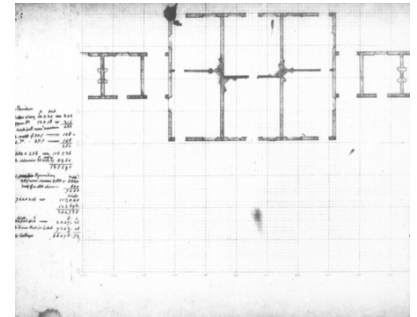ic, Tuscan, and Ionic columns are found throughout the academical village, all of which were used by Roman architects at sites including the Pantheon and Fortuna Virilis. The intervals between columns also vary, and pilasters were used on the exteriors of certain pavilions, as in Pavilion VII (Figure 10).[48] Some buildings, including Pavilion VII, have pediments, a feature that likens such pavilions to the Maison-Caree. The exedra, an architectural element first utilized by the Romans in constructing their baths, is featured on certain pavilions, and the exedra of Pavilion IX has often been used as a model for subsequent architectural forms (Figure 11).[49] There is also some variation in pavilion size. For example, Pavilion IX is squat in comparison to the vertical and stately Pavilion X, the only structure on this half of the lawn built with colossal order (Figure 12).[50]

Figure 9: Plan of pavilion and dormitory unit

Figure 10: Pavilion VII

Like the pavilions, the Rotunda's origins were also rooted in Roman architectural history. The Rotunda, the University's library, was modeled after the Pantheon in Rome (Figures 13-14).[51] The Pantheon, built in Rome circa 125 A.D., was a temple dedicated to all gods, "pantheos." The Pantheon had a dome-on-drum design with an attached portico, which was supported by twenty Corinthian columns. The temple's dome was supported by an ingenious system composed of coffering and a series of relieving arches. An oculus at the highest part of the dome illuminates the interior. The Pantheon is a widely celebrated structure for its distinctly Roman dome and clever utilization of the arch. The Pantheon embodies the spirit of antique Roman architecture, so it is no wonder that Jefferson chose to replicate the temple at the University of Virginia campus.

Figure 11: Pavilion IX

Figure 12: Pavilion X

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[46] Patton, 185.

[47] Wills, 17.

[48] Wills, 13.

[49] Wilson, 62.

[50] Wills, 15.

[51] U.S. Bureau of Education, *Thomas Jefferson and the University of Virginia*, by Herbert B. Adams, No. 1. (Washington D.C.: United States Government Printing Office, 1889), 25.

Jefferson sought to create an exact replica of the Pantheon based on Palladio's measurements, but on a smaller scale so that the Rotunda would not detract from the splendor of the pavilions.[52] The interior of the Rotunda is half of the length of the Pantheon, "and

Figure 13: Pantheon

consequently one fourth it's [*sic*] area, & one-eighth its volume."[53] While the portico of the Pantheon measures one hundred and eight feet by forty-two feet, the Rotunda measures fifty feet by twenty-eight feet and six inches.[54] The height of the Rotunda is shorter than that of the Pantheon as well, and Jefferson decreased the number of Corinthian columns that supported the portico from sixteen to ten.[55] Because the size of the structure was regulated, there are differences in the appearances of each of the structure's interiors. Despite these differences in scale, the most prominent features of the Pantheon were included in the construction of the Rotunda. The replica of the dome of the Pantheon, which the Romans believed to represent the heavens, became the site of a planetarium for the University at Jefferson's request. This act alone illustrates Jefferson's desire to stay as true to the Roman model as possible.
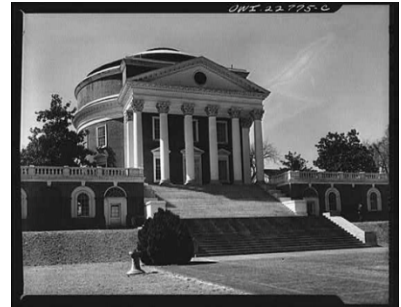

Figure 14: Rotunda

Thomas Jefferson was able to successfully integrate his personal interests in public health and antique forms into architectural planning and design at the University of Virginia. The application of French hospital planning and Roman temple patterns to a collegiate setting created a unique and innovative academic environment. Jefferson's revolutionary formula would be adapted by developing colleges and universities nationwide, for it was at once practical and beautiful. The academical village is a reflection of Jefferson not only as an architect, but as a policymaker, leader, and educator, who strove to create an environment best suited for the health and liberal studies of students attending the University of Virginia.

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[52] "Rotunda History".
[53] Adams, 25.
[54] Patton, 186.
[55] Patton, 202.

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