Virginia Tech's Buildings and Campus:
Virginian, Southern, and American

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Acknowledgements

This thesis has been a project of personal curiosity and personal identity for the past six years of my life. After attending Virginia Tech's College of Architecture and Urban Studies and being given little to no information about the history of the school's campus, I became determined to discover how Gothic buildings appeared in the Valley of Virginia. Further, I knew that architecture, the most costly and laborious of the arts, was always intentional. I wanted to know not just how Virginia Tech's campus came to be, but why. After diving into the archives at Virginia Tech Special Collections, I quickly discovered that my experience at Virginia Tech, my identity as a native Virginian, and my understanding of my own life were tightly bound to the historical realities of my environment.

For this intense curiosity about the history of the constructed world, I must thank my parents. My father, Walter Davis Goodrich Jr., an artist, builder, antiques collector, and historian, has shared with me for my entire life a passion for the value and beauty of tangible objects, and a reverence for the realities of the past. My mother, Diane Deaver Goodrich, a children's librarian for 40 years and my personal academic coach for my entire life, continually pushes me to be curious and discover the beauty, order, and chaos of life through the written word. Both of my parents have been completely instrumental in my education, now culminating in this thesis. They showed me the virtue of knowledge and gracefully demanded that I succeed. They are ultimately responsible for my decision to pursue both undergraduate and graduate degrees, and for my ability to do so.

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An Introduction to Virginia Tech's Buildings and Campus

Virginia Polytechnic Institute and State University was founded in 1872 as Virginia's Land Grant Institution for white males. It is located in Blacksburg, Virginia. Today, the school is known as Virginia Tech. As one of the United States' six Senior Military Colleges, it has maintained an active Corps of Cadets since its inception, with participation required by all male students until 1964. Virginia Tech is the Commonwealth's hub of agricultural education and innovation, and has always had an academic focus on engineering and other technical fields, as required by its Land Grant status. For the first quarter of Virginia Tech's history, its Blacksburg campus consisted of a variegated array of economically constructed brick buildings, some decorated with simple brackets and mansarded towers in the Second Empire style, and others bearing only the most simplistic nods to classical ornamentation. In the early twentieth century, Virginia Tech's president developed a personal relationship with the architect Ralph Adams Cram. Within a decade, Virginia Tech had adopted a version of the Collegiate Gothic style as the architectural identity of its campus. These buildings were the direct product of local, regional, and national ideologies, and represent Virginia Tech's attempt to visually identify itself with the Commonwealth of Virginia, the South, and the United States.

Between 1914 and 1955, Virginia Tech employed Carneal and Johnston Architects to construct nearly two dozen Gothic buildings at the Blacksburg campus. Every one of these buildings is faced in dolomitic limestone, a traditional local building

material quarried on the campus. The rock has become known as “Hokie Stone”, after the school’s “Hokie Bird” mascot. The idea of the stone has become a cultural symbol for the strength, resilience, and general identity of Virginia Tech. Figure One shows a typical wall of shaped Hokie Stone blocks.

Burruss Hall (Fig.2) and War Memorial Hall (Fig. 3), the standard-bearers of the school’s architectural identity, oppose each other on respective north-west and south-east sides of a 600-foot by 1500-foot oval of grass known as the Drillfield (Fig.4). Both buildings consist of square central masses of Hokie Stone rising through setbacks and engaged buttresses into four-part crenelated towers. The peaks of Burruss Hall’s six-story tower are divided by sections of geometric tracery in full cast stone. The central door and window are capped with cusped slit windows set under depressed arches, and the first two stories are clad in cast stone with simplified Gothic niches and representations of crenelated towers engaged with the facade. War Memorial Hall features a Hokie Stone tower of more squat proportions with a lancet-arched entry, topped by a crenelated central bay window, and a colossal Virginia Tech crest all in tan cast stone. Details such as rustication, simplified gargoyles, geometric quatrefoils, and other applied medallions are found sporadically in cast stone. The architecture is reminiscent of and undoubtedly related to the broader Collegiate Gothic style, but is notable in its frequent use of flat surfaces and stripped or artistically simplified ornamentation. The buildings’ are militaristic, masculine, and stark. They blatantly symbolize Virginia Tech to visitors, and are held as icons of pride in the hearts and minds of graduates.

Individual elements of the founding ideals, campus architecture, and student culture of American colleges and universities are often hoisted from the depths of history and flown as standards of school identity. Pride, tradition, and storytelling obscure reality, and emotions replace historical fact in the public image of a university's origins. The cultural idea of Hokie Stone and the casual identification of Virginia Tech's buildings as "Gothic" has subsumed the complexity of the school's architectural history.

Architectural styles and building practices are not foregone conclusions at the moment of a school's inception, but rather the direct result of economic, cultural, and political trends within a schools' leadership, and without in the public landscape. A school's buildings and campus are a material reflection of the ideals and cultural image-making efforts of its leadership, and are therefore a massively important relic which aid in deciphering a more accurate and culturally interconnected history of any college or university.

At Virginia Tech, the practice of building with locally mined gray stone has become central to the image, tradition, and culture of the school, yet has been commercially shorn of its historical context and cultural significance on the regional and national scale. The supposed geologically-unique nature of what is colloquially called "Hokie Stone," mined on Virginia Tech's campus, is upheld in popular cultural knowledge as the singular value of the building material. Further, the type of Gothic architectural style employed at Virginia Tech has been reduced, even in the eyes of many architectural scholars, to a simple nod to Oxford, Cambridge, and the universities of the Old World. The mere reporting of factual tidbits, such as the chemical makeup of

Virginia Tech's famous stone, or the association of a given architecture firm with the school's buildings, does not work to reveal any relevant or critical historical narrative about the origins of the school's campus.

This thesis investigates a more richly interconnected history of Virginia Tech's buildings and campus through the aggregation of information from a number of different sources. The known and documented building traditions of the Valley of Virginia and the Appalachian Mountains, in which Virginia Tech is located, are realized as both a contextual cultural landscape and as a direct influence on the school's architecture and building technology. The archives of Virginia Tech's Special Collections Library were mined for primary source data regarding architectural decision-making in the formative years of the school. The life narrative of the frequently studied and infrequently understood architect, Ralph Adams Cram, who had an influential association with Virginia Tech, is analyzed in search of what connective tissue may tie a Boston architect to Virginia and the American South. Further, the painful and vivid historical realities of the American South and the Commonwealth of Virginia are not forgotten in this study, but rather are employed for their necessary explanation of the motivations, desires, fixations, and choices of Virginia Tech's founders, teachers, and students. The use of locally mined stone and the choice of a Collegiate Gothic style historically link Virginia Tech's Blacksburg campus to the Shenandoah Valley building tradition, to the architecture of Ralph Adams Cram, and to the ideologies of the Old South, and reveal the campus to be deeply representative of the school's Virginian, Southern, and American identities.

Review of Existing Literature

No previous study or publication has employed a multifaceted, regional and cultural approach to defining the significance of Virginia Tech's campus. No book on Virginia Tech has been published in Princeton Architectural Press' acclaimed "The Campus Guides" series. Further, no truly thorough overview of the campus has ever been written. Several widely available publications exist which broadly define Virginia Tech's history and selectively report on the origins of its campus. These commemorative and souvenir-style books paint an elaborately grandiose picture of Virginia Tech's history without engaging in challenging scholarship, likely to the relief of the majority of their readers. One such work is *Virginia Tech* by Nelson Harris, published in 2004 as part of "The Campus History Series" from Arcadia Publishing. Nelson's work is largely a compilation of historic photographs from the online "VT Imagebase" online database. Photos are organized into sections such as "Cadet Life," "The Campus," and "Student Life". Each photo is captioned with a brief explanation, with information which, according to the author himself, "came from… *The First 100 Years - a History of Virginia Polytechnic institute and State University, written by Duncan Lyle Kinnear*." Kinnear's landmark 500-page volume is, of course, a key source for this thesis. However, as is often the case, it serves as only a basic primer on the history of the campus, offering much of the basic information used in this thesis, but lacking

cohesion between the specific set of facts required to narrate an architectural story for Virginia Tech.

Another proud history of Virginia Tech exists inthe 1997 *Images and Reflections: Virginia Tech 1872-1997* edited by Lawrence G. Huncker and Clara B. Cox. Cox was Virginia Tech's Manager of Public Service Communications, and is also the author of a number of works on the history of Virginia Tech, including *The Grove: When a House Becomes a Home*, about the President's house at Virginia Tech, and *Generations of Women Leaders at Virginia Tech. Images and Reflections* is an incredibly richly illustrated book. It is bound in heavily grained faux leather with the Virginia Tech Seal in embossed reflective gold finish on the cover. It was published to commemorate the 150th anniversary of the founding of Virginia Tech. The book invites readers to reminisce fondly with a number of beautifully written eulogizations on the nature of the campus: "The cold stone seems lifeless, but it is alive with the names of men and women who contributed in lasting fashion to the growth and glory of the university"; "Etched into the buildings- and echoing in the halls - that the students will come to know, are the names and traditions formed by the lengthening shadows of dedicated individuals to whom much is owed"; "Any institution is in large part a reflection of the individuals who fashioned it." The authors go on to identify each of these "individuals," mostly University Presidents and their influences on Virginia Tech, but they inevitably fail to provide any insight into the construction of the campus other than offering the inarguable assertion that each building was in fact built.[1]

[1] Clara B Cox and Lawrence G. Hincker, *Images and Reflections: Virginia Tech 1872-1997.* (Goshen, Kentucky: Virginia Polytechnic Institute and State University in conjunction with Harmony House Publishers, 1997), 13.

J. Daniel Pezzoni, a noted architectural historian with a focus on the Valley of Virginia region, wrote the only critical narrative of Virginia Tech's architectural history in 1997. His work was published as a short journal article in *The Smithfield Review, Volume I.* This thesis is largely indebted to Pezzoni's foundational work, and began with a retracing of his archival search. Claims made by Pezzoni are tested, analyzed, and confirmed, critiqued, or furthered in order to more fully engage with several concepts of "identity". As no other scholar does, Pezzoni synthesizes a number of key primary sources in order to argue outright that native stone and the Gothic style were chosen for Virginia Tech's campus with purpose and intention.

Peter Wallenstein's 1997 *Virginia Tech, Land-Grant University, 1872-1997: History of a School, a State, a Nation,* to which this thesis is partially titled in tribute, is the singular critical historical analysis of Virginia Tech's institutional history. Wallenstein situates Virginia Tech's story in a broader context, eschewing prideful tales of school spirit for expository and investigative truth-telling. Through a beautiful system of cross-referencing within multiple scales of interrelated causality and function, Wallenstein provides a concise history that emerges above unrelenting factual reporting yet refrains from frivolous storytelling. Though architecture is not his focus, both his method and narrative serve as incredibly meaningful and concrete starting points for any study of Virginia Tech.

Earlier and more voluminous works hinted at the possibility for a more interconnected history of Virginia Tech. Kinnear's aforementioned *First 100 Years* is the

largest single source for the factual chronology of Virginia Tech's origins. Harry Downing Temple's *The Bugle's Echo* offers an expansive history of student life, morale, and campus traditions, including references to the development and evolution of the campus buildings that set his stage. Falling into a similar category are Douglas Shand-Tucci's biographies of Ralph Adams Cram, the architect responsible for the majority of America's Collegiate Gothic movement, and directly responsible for bringing the style to Virginia Tech. His 1995 *Boston Bohemia, 1881-1900: Ralph Adams Cram: Life and Architecture* and 2005 *Ralph Adams Cram: An Architect's Four Quests* exhaustively report each factual detail of Cram's life and attempt to situate it within a selection of broad themes of the architect's career. What this profound work also provides us with is the framework needed to develop a more detailed history of Cram's work in Virginia.

Virginia Tech's history has been frequently retold, yet seldom investigated. Without a noted founding figurehead, defining cultural moment, or long pedigreed history, as the University of Virginia has in Thomas Jefferson, Virginia Military Institute has in the Battle of New Market, or William and Mary has in its seventeenth century origins, Virginia Tech's history offers little core energy with which to fuel scholarly activity. Further, without such a guiding historical beacon, Virginia Tech's story has been recently subjected to undue glorification and casual, if not careless, retellings. Kinnear, in discussing his writing of "The First 100 Years," stated that "VPI [now Virginia Tech] has less recorded history, written down for posterity, than any institution I've ever looked into...I think it reflects the kind of institution VPI was for so many years: practical,

pragmatic, busy with getting the job done. Nobody worried about putting it down on paper."[2]

Overview of Arguments and Content

As Kinnear and dozens of others have retold, some quantity of information was in fact written down, even from the beginning. Tragically, the entirety of Virginia Tech's founding documents were destroyed in a fire that ravaged the school's first native stone building.[3] Just as the early written history of Virginia Tech was lost when the "Rock House" burned, so too was the true legacy of the building itself. Though the Rock House can be found in a handful of early photos (Fig.5), and in the pages of Kinnear and Temple, its significance to Virginia Tech's architectural identity has vanished in the mists of time and the smokescreen of pride. The Rock House was built with traditional local materials in the format of a Virginian vernacular house; it is directly linked to the architectural tradition of the Valley of Virginia. By resituating the origin-story of what became known as "Hokie Stone" around the Rock House, a more interconnected, intentional, and meaningful web of architectural influence emerges. Both Hokie Stone and the later adoption of the Collegiate Gothic style can be revealed as representative of Virginia Tech's Virginian, Southern, and American identities.

[2] Duncan Lyle Kinnear, *The First 100 Years: A History of Virginia Polytechnic Institute and State University* (Blacksburg: Virginia Polytechnic Institute Educational Foundation, 1972), IX.
[3] "Campus Buildings," Virginia Tech History, Physical Plant, Unirel, accessed September 5, 2019, https://history.unirel.vt.edu/physical_plant/campus_buildings.html.

The first chapter of this thesis traces the origins of Virginia Tech as they relate to the architectural development of its campus, as well as placing the narrative of Virginia Tech back into the Valley of Virginia where it evolved and belongs. Through a more thorough and careful investigation than has previously been publicized, the origins of Virginia Tech's practice of building with locally mined stone are described. The historical legacy of building with stone in the Valley of Virginia is investigated as the driving energy behind Virginia Tech's choice of the material.

The thesis' second chapter focuses on Virginia Tech's fifth president, John McLaren McBryde, and his relationship with the architect Ralph Adams Cram. McBryde's architectural knowledge, personal southern identity, and religious practice will be analyzed in relation to Cram's personal and architectural beliefs. The private relationship between the two men is discussed, and an argument is made for their shared goals for the future of Virginia Tech. A previously unidentified ideological alignment is explored; for McBryde and Cram, the Arts and Crafts movement, the Gothic style, and the ideal of an Anglo-Saxon past were inextricably linked. The meaning of the Collegiate Gothic style will be situated in the Southern context.

The third chapter of this thesis reveals the architectural result of the marriage of native-quarried stone with the Collegiate Gothic style. Two later presidents of Virginia Tech, Eggleston and Burrus, carried on the legacies of McBryde and Cram in ways that have not previously been explored. Intentionality in design and sentiment was always present as Virginia Tech executed its eventual plan for the creation of an architectural identity. Each Virginia Tech building executed in the Collegiate Gothic style until the mid

20th century is studied for its cultural importance and significance to an overall campus scheme. Virginia Tech's campus moved in interpretation from the embodiment of early 20th century Virginian, Southern, and American socio-political commentary into the architectural embodiment of a Virginian, Southern, and American university.

With careful consideration of Virginia Tech's known history, and the aggregation of a diverse set of informational sources and analytical methodologies, Virginia Tech's buildings and campus come into focus as expressions of ideals and ideologies of a time and a place. The raw historical data needed to construct a more interconnected architectural history of Virginia Tech has always existed, but it has been obscured, separated, unintentionally lost, and forgotten. This thesis attempts to reconnect the network of intentionality which resulted in the construction of Virginia Tech's unique Blacksburg campus.

Chapter One:
Valley Origins of a Material and a School

Building with Stone in the Valley of Virginia

Virginia Tech is located in the town of Blacksburg, Virginia, in the heart of the New River Valley in Southwest Virginia, the area which connects laterally with the Great Valley of Virginia and more broadly to the Appalachian Mountains, extending the entirety of the East Coast. The New River Valley region is part of a geographical and cultural system that links it to people and architecture throughout the East Coast of the United States. One massive vein of stone, continental in scale, has been used as a source for building material in Western Virginia since the arrival of the first European settlers. This vein, which consists of Ordovician and Cabrian-Era sediment in the form of limestone, dolomite, and sandstone, stretches not only the length of the Valley of Virginia, but south into the Carolinas and north to Pennsylvania and beyond. Figure 6 shows this vein in a geological map.[4] Some of the finest surviving vernacular architecture in the Valley of Virginia is built from native limestone mined from this Ordovician and Cambrian geological formation. The network of limestone architecture in Appalachia links a number of ethnic groups and concentrated communities into the Valley's system of architectural tradition, of which Virginia Tech's campus would eventually come a part.

[4] John T. Hack, *Geomorphology of the Shenandoah Valley, Virginia and West Virginia and Origin of the Residual Ore Deposits*, GEOLOGICAL SURVEY PROFESSIONAL PAPER 484, (Washington DC: United States Government Printing Office, 1965), 13.

The multi-dimensional cultural landscape surrounding Virginia Tech's campus is understood as a number of overlapping regions defined by official and unofficial nomenclature. The New River Valley is defined in the present as a "metropolitan statistical area" with a high degree of economic and cultural cohesion. Geographically, it is composed of Floyd Giles, Montgomery, Pulaski Counties.[5] To the north following the Blue Ridge mountains is the Roanoke Valley, which according to some sources, sits at the southern border of what is referred to as the Shenandoah Valley - this being the area surrounding the mountains running from the City of Roanoke to the northern border of Virginia. The terms Shenandoah Valley and Great Valley of Virginia are occasionally considered to be synonymous; they are unofficial, cultural geographic terms.[6] For the purposes of this thesis, the "Great Valley of Virginia" or "Valley of Virginia" will refer to the entirety of Appalachia that lies within the present-day borders of Virginia.

"Appalachia" is an ambiguous term that refers to the cultural and geographic area surrounding the Appalachian mountains, stretching from western New York to the northern tip of Mississippi. The area was first defined in the 1800's, through a process of "othering," as a homogenous region of un-Anglicized and uneducated Germans and Scots-Irish immigrants. In the later 20th and early 21st century, this characterization has been dispelled in favor of the ethnically, economically, and culturally diverse reality of the region. According to a 2011 study by Christopher A. Cooper, H. Gibbs Knotts, and

[5] "Our Region," New River Valley Virginia, accessed February 17, 2020, https://www.newrivervalleyva.org/our-region/.
[6] W.L. Whitwell and Lee W. Winborne, *The Architectural Heritage of the Roanoke Valley*. (Charlottesville: University Press of Virginia, 1982), 2.

Katy L. Elders, Appalachian residents who consider themselves to be part of Appalachia reside only in the central spine of the region, from North-Wesern Virginia (and West Virginia) to North Carolina. See Figure 6 for a map showing these regions as they relate to geological patterns. The pattern correlates with the Appalachian mountains' geologic limestone vein. Additionally, it represents a large part of the area that was settled by Germanic immigrants in the 18th and 19th centuries.[7] The well-known Pennsylvania German or Pennsylvania Dutch community is in fact part of a network of German settlements along the Appalachian mountains, reaching south to western North Carolina. The histories of Appalachia, limestone, and German-American culture are intertwined. They relate directly to the architectural traditions of what is referred to as Appalachia, and directly influenced the formation of Virginia Tech's campus. Virginia Tech's earliest architectural uses of what it came to call Hokie Stone are linked to the vernacular housing traditions of the surrounding region.

The use of native limestone as a building material dates back to the earliest European settlement in Appalachia. At a basic level, stone has always been a preferred building material for its structural characteristics. For Appalachian Germans who still held personal or inherited memory of their European traditions, stone architecture held particular value beyond its practical benefits. According to William Weaver, "in German culture, stone projected a conscious achievement of status." It was the German feudal lords, and their tax collectors, who had built in stone in Europe. After crossing the

[7] Christopher A. Cooper, H. Gibbs Knotts, and Katy L. Elders, "A Geography of Appalachian Identity," *Southeastern Geographer* 51, no. 3 (2011): 457-72.

Atlantic, many of those who could afford to build in stone chose to architecturally exhibit their newfound wealth, stability and success.[8]

In her 1978 master's thesis at the University of Virginia, "Early Architecture of the Lower Valley of Virginia," Barbara Hume Church traces the settlement and architectural trends of the Shenandoah Valley and the broader Appalachian region in the 18th century. She reports that in the northern section of the Valley, enthnic German groups settled, while "the southern region was populated primarily by Scots-Irish, many of whom had come directly from Ireland. So completely did that group dominate this region that on the map of Virginia drawn by Joshua Fry and Peter Jefferson in 1750 and reprinted in 1775, the southern part of the Shenandoah Valley is labeled the 'Irish Track.' "[9] Both Scots-Irish and Germans practiced building traditions significantly different than those found in Tidewater Virginia, and these building traditions were not limited to log construction.

Church goes on to describe that "the major deviation in Valley and Eastern Virginia architectural patterns was found in the materials used in building... log and stone houses were the Valley counterparts to the frame and brick houses of Eastern Virginia."[10] Church argues that stone, more than any other major building material, was meaningful to the inhabitants of the Valley, and was always central to their ideals of quality architecture. Church reports that the material could be "readily secured from the

[8] William Woys Weaver, "The Pennsylvania German House: European Antecedents and New World Forms," Winterthur Portfolio, Vol. 21, No. 4 (Winter, 1986), 243.
[9] Barbara Hume Church, "Early Architecture of the Lower Valley of Virginia," (Master's Thesis, University of Virginia, 1978), 7.
[10] Church, "Lower Valley," 27.

large deposits of limestone for which the Shenandoah Valley is noted." Most importantly, through her full architectural survey of the region, Church is able to report that "every significant plan found in Shenandoah Valley architecture was executed in stone." Figure 7 shows Fort Stover, a typical and undisturbed example of a significant Shenandoah German stone house. Church concludes that economically successful inhabitants of the Valley chose stone as a representation of wealth. Additionally, without explanation, she notes that stone was a "favorite of church-builders.[11]

William Weaver would later come to similar conclusions about the architectural practices of Appalachia's German population. In Germany and Europe, churches and cultural centers, as well as the houses of feudal lords, had been built in stone, a practice which was not lost in the crossing of the Atlantic. For an ethnic group conscious of their unique cultural practices, and often living in fear of losing them to an encroaching English population, "symbols," such as stone buildings, "were a psychological necessity." They represented the comforting paternalism of religion, familial structure, and social relations of the Old World. Stone was a symbol of the inferred stability of a family, household, society and civilization structured around male control. The readily available limestone of Appalachia offered renewed potential for the exhibition of traditional cultural practices and came to be understood by all as a symbol of wealth, stability, and success.[12]

[11] Church, "Lower Valley," 45-46.
[12] Weaver, "The Pennsylvania German House," 1.

The future location of Virginia Tech, in the heart of Appalachia, was surrounded on all sides by Germanic settlement, and subsequently, Germanic architecture. Montgomery County, in which Blacksburg and Virginia Tech are located, appear at first to be areas settled purely by Englishmen. Sources such as "Highlights in the Early History of Montgomery County, Virginia," or even compilations of primary source records such as "Montgomery County, Virginia: The First Hundred Years," fail to include a single consideration for the existence of non-English ethnic traditions in southwest Virginia.[13]

The County was not formally incorporated until 1776, and was then named for Richard Montgomery, a British war hero who joined the Revolutionary cause and died defending Quebec.[14] Despite the seeming domination of Montgomery County's early history by English individuals and documentation, there are sources detailing significant German population and cultural influence in the area. A common narrative exists of Pennsylvania's German population migrating south through the Appalachian Valley of Virginia. These northern migrants indeed reached Southwest Virginia and the New River Valley region that encompasses Montgomery County. According to Klaus Wust, Pennsylvania German families were some of the first settlers of this region. Fincastle, Giles County, Pearisburg, Brush Mountain, Prices Fork, and other areas scattered less than twenty miles from the future site of Virginia Tech saw German inhabitants as early as the 1740's. By this point, the entire Valley had been explored or settled by Germans

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[13] Lula Porterfield Givens, *Highlights In the Early History of Montgomery County, Virginia*, (Christiansburg, VA: Givens, 1975); and Charles W. Crush, *Montgomery County, Virginia: The First Hundred Years*, (Athens, Iberian Publishing Company, 1994).

[14] Givens, *Early History,* 12.

who maintained active trade routes and other relationships, including those based on architectural practice, with their ethnic relatives up and down the East Coast.[15]

In addition to the common narrative of southward German movement, a contingent of ethnic central Europeans had also migrated north from North Carolina along the axis of the Valley of Virginia. In 1709, Baron Von Graffenried of Berne, Switzerland, established the settlement of New Berne in North Carolina. After a generation of Indian attacks, flooding, and sickness, the Baron and his Swiss and German followers abandoned their settlement. Many of these immigrants travelled north to what is now Pulaski County, Virginia. Adam Hance arrived in the region in 1770, and by 1810 had incorporated Newbern as a planned town of log and stone structures.[16] Newbern became the Pulaski County Seat, just south of Blacksburg and Virginia Tech. With Germans existing as a majority in a yet-to-be-Anglicized landscape, they constructed buildings in a format of their own cultural origin, which, when possible, included the use of locally mined stone. Stone was thus a traditional local building material in the area surrounding Virginia Tech.

In Montgomery County, fewer stone structures survive as evidence of the German tradition. A number of early brick houses built in the English Tidewater style characterize the landscape. The most notable of these is Montgomery County's Smithfield Plantation, home to the locally influential Preston family, and birthplace of two

[15] Klaus Wust, The Virginia Germans, (Charlottesville: The University Press of Virginia, 1969), 38-39.
[16] Herrmann Schuricht, *History of the German Element in Virginia,* (Baltimore: T. Kroh & Sons, Printers, 1898), 67; and "History of Newbern," New River Historical Society, accessed May 1, 2019, https://www.newriverhistoricalsociety.com/.

Virginia Governors (Fig.8). According to Smithfield's National Register Nomination Form, "Smithfield is one of the earliest large plantation houses built west of the Blue Ridge Mountains."[17] Smithfield, built in 1773, is a one and one-half story frame structure with a massive brick end chimney set away from the house in the Tidewater tradition. Its simple architectural details are a relic from a Medieval English origin. However, the house does feature a quite progressive symmetrical five-bay façade. The Smithfield house was indeed a pioneer in architectural style for the region, and would have been known locally as a culturally-English mode of wealth representation.

Though few survive, stone structures were indeed built in Montgomery County in the 18th and early 19th centuries. Significantly less progressive in its architectural layout than Smithfield, the stone Howard-Bell-Feather house was one of the more notable early 19th century structures in the region (Fig.9). The complexity and peculiarity of the Howard-Bell-Feather House demands analysis. The structure is set into a hillside, with two full stories exposed on the rear façade, and a single story on the front. The lower level interior walls are bare whitewashed stone, while the upper are plastered, in the typical Valley tradition as reported by Church.[18] Several iterations of porches have been constructed and removed from both facades. Both façades feature a centered door flanked by a window on each side. Interestingly, the rear two-story façade has windows set farther from the door compared to those on the front. The house is constructed of local dolomitic limestone, with stone chimneys of slightly different sizes on each end of

[17] Staff, Virginia Historic Landmarks Commission and James W. Moody, Jr., Director, "Smithfield," National Register of Historic Places Nomination Form 150-5017, Washington, DC: U.S. Department of the Interior, National Park Service, 1969.
[18] Church, "Lower Valley," 44.

the longitudinal plan. The roof runs longitudinally with the plan. “The gable walls,” according to the Nomination form, “rather than being built of stone, as would have been typical, are framed with weatherboarded studs.”[19] The house employs a three-room floor plan that appears to be unlike any known model. Rather than being centered around a chimney and fireplace, the interior volume is laterally divided into one large and one small room, in the format of a traditional Tidewater Virginia hall-and-parlor house, with the front door leading into the larger “hall” space.[20] Interestingly, the smaller “parlor” room on each level is further subdivided into two smaller spaces, with double corner breast fireplaces warming each space (Fig.6). The National Register Nomination for the house states that an underlying Tidewater hall-and-parlor structure precludes any German influence, failing to further address the origin of the three-room layout. Although a typical German-American farm house would have used a door entering into the smaller kitchen space, and a central fireplace, there is no precedent other than the German architectural tradition for a longitudinal division within what the English typology understands as a “single pile” plan. In William Weaver’s explanation of the “Pennsylvania German” house plan as found in Appalachia, divider walls most often appear separating a larger hall into a Schtupp and Kammer, opposite the central fireplace in the Kitch.

[19] Gibson Worsham, “Howard-Bell-Feather House” National Register of Historic Places Nomination Form 89001887, Washington, DC: U.S. Department of the Interior, National Park Service, 1989.
[20] Hugh Morrison, *Early American Architecture: From the First Colonial Settlements to the National Period*. (New York: Oxford University Press, 1952), 140.

Further suggesting the possibility of Germanic influence is that the secondary division on the main or entrance floor of the house was removed at least one hundred years ago, according to the National Register Nomination. According to Edward Chappell, “because of social and perhaps political aspirations, some wealthy Valley Germans were especially receptive to Anglo-American affectations.”[21] Just as Germans were sensitive to the dilution of their heritage by contact with English settlers, as described by Weaver, so too did some give in to this pressure and actively attempt to socially perform as English, therefore being perceived as wealthy and successful.

Several pieces of evidence suggest that the Howard family, builders of the house in question, were interested in wealth and social aspirations. William Howard owned over 2000 acres, nearing Smithfield’s 3000 acre property. Howard’s descendants called his house "the first stone *mansion* in southwest Virginia," implying an aspirational connection to the finely constructed Georgian structures being built by Virginia’s elite English planter class at the time. Further, the central doorway and symmetrical windows would have been chosen as an early concession to a gentrified and academic architectural style. The later removal of the Howard-Bell-Feather house’s partition wall, which functionally created a true hall-and-parlor plan, would have deconstructed previous connections to German backcountry origins and aligned the family with the affluent and educated Virginians to the east. Even in Montgomery County itself, where increased Tidewater influence brought Georgianized houses, stone was still used in

[21] Edward A. Chappell, “Acculturation in the Shenandoah Valley: Rhenish Houses of the Massanutten Settlement”, in Dell Upton and John Michael Vlach, *Common Places: Readings in American Vernacular Architecture.* (Athens: University of Georgia Press, 1986), 37.

homes of the wealthy and aspirational, whether they were of English, German, or Stotch-Irish origin. The practice of building in limestone, though not exclusively Virginian, was brought to Virginia by an ethnically diverse group of builders and became central to Virginia's architectural history. Structural brick and timber framing should not be regarded as the only house-building methods which are emblematic of 18th and 19th century Virginian culture. Stone played an important and symbolic role in the significant interplay between English and non-English ethnic traditions of the Valley.

In addition to being used to construct houses and churches, locally mined limestone has been used in the Valley of Virginia's educational architecture for centuries. Virginia Tech's eventual 20th century use of the material only adds to this strong legacy. Washington and Lee University was originally known as Augusta Academy. It was founded in the Valley of Virginia, in the Shenandoah mountains, by and for Scots-Irish Presbyterians. Soon after the school's creation, it was renamed Liberty Hall Academy and moved south to Lexington, Virginia to better serve the Scots-Irish population of the Valley. The first building at this location was, like many early churches and houses in the region, "constructed of the solid, imperishable limestone of the Valley."[22]

According to Washington and Lee's website, "its ruins are preserved today as a symbol of the institution's honored past."(Fig.10)[23] This celebration of ruins began as

[22] Washington and Lee University. *Historical Papers*. (Baltimore: 1890), 18.
[23] "A Brief History : Washington and Lee University," Washington and Lee University, History and Traditions, accessed March 15, 2019, https://www.wlu.edu/about-wandl/history-and-traditions/a-brief-history.

early as 1848; reverence for Liberty Hall's stones was again expressed in an 1890 publication.[24] This practice continues into the present, despite Washington College's adoption of a brick neoclassical style in 1824. The continual celebration of the school's ruins represents a continuous architectural thread of school identity directly linked to the limestone of the Valley.

Another university in the Valley of Virginia employs the characteristic locally mined stone in its campus buildings into the present day. James Madison University does not often publicly characterize itself based on its stone architecture, yet nearly every building at the school is faced with what is known there as Bluestone. (Fig.11) The school fully and directly acknowledged the legacy of Bluestone, or limestone, and its importance to Valley history as part of the school's Centennial Celebration. According to a website developed for James Madison University's centennial, "the history of bluestone is intertwined with the history of the Shenandoah Valley." The website describes the earliest European settlers using the stone, the frequency of natural occurrence in the area, and the idea that the stone's "qualities reflect the very nature of the German and Scots-Irish settlers who braved the mountains to settle in the Shenandoah Valley"[25]

Before selecting the limestone of the Valley for its campus architecture, James Madison University began life as the State Normal and Industrial School for Women at

[24] Washington and Lee, *Historical Papers*, 43.
[25] "JMU Centennial Celebration - The History of Bluestone," James Madison University, accessed January 12, 2020, https://www.jmu.edu/centennialcelebration/bluestone.shtml.

Harrisonburg. At the time of the school's founding in 1908, Harrisonburg, Virginia's "very provincial character personalized the connection between the school and town until both seemed almost one," according to Nancy Bondurant Jones' 2004 *Rooted on Bluestone Hill: A History of James Madison University*.[26] The Board of Trustees appointed Julian Burruss, a recent graduate of Virginia Tech, and its future president, as the Normal School's first president. Burruss immediately set to work building a school from nothing more than the character of the Valley surroundings.

He hired Richmond architect Charles M. Robinson to design a master plan for the future development of the campus. Burruss declared that "the greatest possible foresight should be exercised, and the school should be planned for the future as well as the present… the buildings should be simple and appropriate in design, and distinctive in type… and the same type of architecture must in all events be maintained throughout the group." This scheme was carried out, and has since been compared to Jefferson's Academical Village in its level and quality of architectural preplanning.[27] The campus of what became James Madison University was finished in native limestone, found locally in a bluish hue, and Spanish red-tile roofs. Another future president of Virginia Tech, then Superintendent of State Schools, Joseph Dupuy Eggleston, declared that what had been created was "a really great school - one worthy of the Valley of Virginia. When completed… beyond comparison the most beautiful, most

[26]Nancy Bondurant Jones, Linwood H. Rose, Ronald E. Carrier, Center for American Places and Community Foundation of Harrisonburg and Rockingham County, *Rooted On Blue Stone Hill: A History of James Madison University*, (Santa Fe, NM, Staunton, VA: Center for American Places, 2004), 8.
[27] Ibid.

comprehensive school of its kind in the South." [28] Both men, Eggleston and Burruss, saw the importance of integrating the architectural spirit of the school with the building traditions and character of the Valley of Virginia. Both men would also carry these experiences south to Blacksburg, as presidents of Virginia Tech, where they would perpetuate and build upon the traditional significance of locally mined limestone. Though Virginia Tech's was founded long before James Madison University, and first used local limestone for school buildings in the 19th century, its eventual identity based on locally mined limestone would not have developed without the experiences of Eggleston and Burruss at James Madison University. Further, the character of Virginia Tech's campus, like James Madison University's campus, is shaped in large part by the character of the Valley of Virginia in which it exists. Architectural traditions link Virginia Tech's campus with the entire cultural legacy of building with stone in the Valley of Virginia.

The Land-Grant System and Founding of Virginia Tech

In 1872, the Virginia legislature awarded Blacksburg's Olin and Preston Methodist Institute with two thirds of the Commonwealth of Virginia's funding from the Morrill Land Grant Act, reimagining the Institute as the Virginia Agricultural and Mechanical College, or V.A.M.C. The decision to award the funds to the Blacksburg school came only after a necessary period of political restabilization during

[28] Jones, "Blue Stone," 13.

Reconstruction. Subsequently, a long legislative battle for the Morrill Act funds gave rise to sectionalism between the State's regions, and battles between the state's institutions of higher learning. Neither the University of Virginia nor Virginia Military Institute would receive the Federal funding for agricultural, military, and technical education, as had long been expected.

According to Duncan Lyle Kinnear, a system of agricultural education had been an ultimate goal of a number of notable Southerners and Virginians since long before the Civil War. He reports that, "at the forefront of the movement for agricultural reform to be achieved in part by agricultural education, were such great Virginia names as Barbour, Cabell, Cocke, Garnett, Giles, Jefferson, Madison, Nicholas, Preston, Randolph, Ruffin, Taylor, Tyler, and many others." The agricultural activity of the 18th and early 19th centuries had taken a heavy toll on Virginia's soil quality. Thomas Jefferson and other noted planters who practiced some level of scientific study were aware of a multitude of technical barriers to efficient and economically feasible agriculture in the Commonwealth. Jefferson had originally proposed that agricultural education be included in the curriculum of the University of Virginia.Up until the eve of the outbreak of the Civil War, Virginia was home to a significant number of Agricultural Societies which lobbied for the creation of an institution of agricultural education.[29] No agreement was ever reached, and sectionalism between the State's regions was fueled by the dramatically different farming techniques and social practices in the Tidewater

[29] Duncan Lyle Kinnear, *The First 100 Years: A History of Virginia Polytechnic Institute and State University*, (Blacksburg: Virginia Polytechnic Institute Educational Foundation, 1972), 4-5.

and Valley. These differences were linked to the divide between Germanic and English ethnic traditions, and were represented architecturally as described in the previous section. Only the utter destruction of War, and the complete collapse of Virginia's economic, social, and industrial systems, would bring the Commonwealth to a moment of crisis in which it was forced to reconcile and rebuild.[30]

During Reconstruction, Virginia became Military District Number One, under complete Federal control. The Confederate legislature was entirely replaced by a group of three senators, nine delegates, and a governor, who had declared themselves Virginia's legitimate, Federally-backed government during the War. These few men re-established order to an extent sufficient to hold an election, forming a new House of Delegates. One of the first items to come under legislative discussion was what should be done with Virginia's share of funding from the Morrill Land Grant Act. The outright need for economic and industrial rejuvenation, combined with the antebellum desire for agricultural education, fueled an intense debate.[31]

In 1862, the United States Congress had passed a bill introduced by Justin Smith Morrill of Vermont which would provide each State (those part of the Union) with 30,000 acres of western territory per each of a state's congressional representatives. The land was then to be sold to fund the creation of programs of education focusing on agriculture, military strategy, and engineering. The text of the original bill decreed that funds from the sale of the territory:

[30] Kinnear, "First 100 Years," 15.
[31] Kinnear, "First 100 Years," 20-22.

...Shall be inviolably appropriated, by each State which may take and claim the benefit of this act, to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.[32]

Virginia was readmitted to the Union in January, 1870.[33] Though then able to officially claim its Land Grant Act funds, the state's legislature failed to appropriate the funding for another two years. According to Kinnear, "twenty-four [Virginia] schools and colleges presented claims for a part of all of the fund." Delegate William T. Sutherlin delivered a moving speech in which he argued that the establishment of technical schools at an existing institution would fail to serve the needs of Virginia's classes of industrial citizens. Sutherlin believed that professors at the University of Virginia and Virginia Military Institute were capable of studying to great extent the scientific needs of Virginia's agricultural community, but he "doubted that any of them knew how to harness a horse, and he would make a trip an day to see one of them attempt to plow."[34]

[32] "History and Overview of the Land Grant College System," The National Academies Press, accessed March 3, 2020. https://www.nap.edu/read/4980/chapter/2.
[33] Kinnear, "First 100 Years," 29.
[34] Kinnear, "First 100 Years," 34.

John E. Penn, a representative from Patrick County who had a law office in Blacksburg Virginia, proposed a solution in which one third of the funds would be given to the Hampton Industrial and Normal Institute (this had been a foregone conclusion, as Morrill funds had to be used for the education of both blacks and whites), while two thirds of the funds would be given to the Preston and Olin Institute in Blacksburg. Because of the tiny Preston and Olin Institute's economic struggles in the wake of the Civil War, it was in desperate need of funding, and willing to completely restructure itself as the State's agricultural, military, and engineering institute for white males. This full restructuring would suit the needs of Virginia's industrial classes and more closely align with the intention of the Land Grant Act, creating a school at which agriculture would not be considered subordinate to classical studies.

Virginia Tech's First Buildings

The Preston and Olin Institute, located at the westernmost end of Main Street in Blacksburg, Virginia, had been housed in one massive brick structure devoted to all school functions from dining, to teaching, to room and board. The brick building, constructed in 1855, was three stories in height with a white band replicating the look of classical entablature below the eaves of its hipped roof (Fig.12). A simplified Greek pediment extended from the front of the structure, which faced Downtown Blacksburg. The building followed in the footsteps of Hampden-Sydney and several other Virginia

schools, by placing all school spaces in a massive horizontal brick building, basically in the form of an upscaled domestic structure, and tacking a "classical" pediment onto the entrance.[35] This type of single-building origin is common for American universities, which often began with only one massive structure, lacking in cohesive ornamentation and featuring little architectural consideration given to function or usage. According to Paul Turner, author of the authoritative *Campus: An American Planning Tradition,* "several of the colonial colleges had a single large building containing most of the collegiate functions."[36] Even a century after the colonial period, most institutions of learning, especially in Virginia, stuck to the single central building format. In 1822, Hampden-Sydney College's first structure of note, Cushing Hall, a "thirteen bay, four story brick" monolith, "housed the entire College operation."(Fig.13)[37] Because of the remote, rural locations of most American institutions, schools sporadically added ramshackle assemblages of "wilderness necessities," such as "barns and blacksmiths shops."[38] These specialized structures served crucial functional requirements of 18th and 19th century life, yet were almost never incorporated into any part of the preplanning or architectural process.

When the Preston and Olin Institute became Virginia Agricultural and Mechanical College, its single large edifice was quickly found to be overcrowded and inadequate.

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[35]J. W. Moody, "Hampden Sydney College Historic District." National Register of Historic Places Nomination Form, (Washington, DC: U.S. Department of the Interior, National Park Service), December 2, 1969.
[36] Paul V. Turner, *Campus: An American Planning Tradition*, (New York: Architectural History Foundation. 1995), 21.
[37] Moody, "Hampden Sydney", 1969.
[38] Turner, "*Campus,"* 21.

According to Glenn Patton, problems arising from expansion were solved at most early American universities by "simple repetition of existing spaces in free standing units."[39] Singular boxlike structures became disjointed collections of boxlike structures built in close proximity. Virginia Tech followed this trajectory. Soon after the Olin and Preston Institute received federal funding from the Commonwealth of Virginia and became Virginia Agricultural and Mechanical College, it built the First Academic Building, quickly followed by the Second Academic Building directly to the south, completed by 1877 (Fig.14)[40]

These side-by-side structures were identical, eleven-bay brick boxes capped on each end by classical pediments with heavy dentil work. Detailed patterns of bricklaying offered the suggestion of engaged pilasters, horizontal bands, and water tables. Arched windows were reminiscent of a vague Romanesque style popular at the time.[41] These two Academic structures, being identical and laid out with some consideration of their spatial relationship, hint at the creation of the idea of a campus, but their location, a thousand feet or more west of the Preston and Olin building, disrupts any argument that Virginia Tech had developed a spatially cohesive campus. It was a space in transition(Fig.15).Virginia Tech was no longer centered on Downtown Blacksburg, as the Preston and Olin building was, but moved West towards what would become Upper Quad, the future center of Cadet life. Furthermore, even after the construction of the Academic Buildings, functional and economical wooden buildings resembling barns

[39] Glenn Patton, "American Collegiate Gothic," The Journal of Higher Education, 38:1, (1967), 2.
[40] Nelson Harris, *Virginia Tech*, The Campus History Series, (Charleston: Arcadia, 2005), 17.
[41] Patton, "Collegiate Gothic," 4.

were built near the rear of the old Preston and Olin Building, with no relationship to the Academic Buildings. These were a Drill Hall, used for indoor Cadet exercises, and Steam Laundry, together known as “Dutch Alley.” (Fig.16) Additionally, a clapboard “Mess Hall” had been constructed in 1874 at more than 1500 feet south of any other College structure.[42] See Figure 17 for a map of these early structures as they relate to the campus today. Before the turn of the 20th century, Virginia Agricultural and Mechanical College had its buildings spread haphazardly throughout a massive field, with no indication of spatial preplanning or organization. However, the fact that the school was intended to be a center for technical education put it at somewhat of an advantage for the future general development of a campus.

Many of America’s oldest institutions had been based on classical educational curricula, teaching mathematics, Greek, and Latin, among other key areas of interest for aristocratic gentlemen. It was not until these schools adopted the curriculum of a true university that they moved beyond creating increasingly disjointed assemblages of standalone structures.[43]

According to Patton:

The new studies and methods, often with specialized requirements, called for buildings radically different from the traditional types... The gymnasium had little in

[42] Harris, “Virginia Tech,” 10 and 17.
[43] Patton, “Collegiate Gothic,” 3.

common with the new chemistry building, but neither did it look like the old classroom building. The campus was headed toward the chaos of the typical town. [44]

At Virginia Tech, as at the nation's other Land-Grant Institutions, specialization in types of learning had been a part of the curriculum from the outset. What at classical institutions would have been considered "wilderness necessities" were, at Virginia Tech, sites of education and part of the standard course of learning. They could more justifiably be given architecturally significant dedicated spaces. In 1888, the original Preston and Olin Building was redesigned as a Machine Shop, with massive open industrial rooms filled with woodworking and metalworking equipment powered by both generators and steam.[45] Virginia Tech, early in its life, was already on the track towards creating separate buildings for specific types of learning. At other schools, as at Virginia Tech, the presence of so many different types of structures, not simply dormitories and classrooms, created the potential for a total lack of architectural organization. Rather than allowing the diversity of a modern or technical curriculum to dictate a disordered appearance, decisions were made by a series of presidents and leaders at Virginia Tech to move towards a cohesive architectural identity.

While a number of Virginia Tech's early buildings were constructed in a Romanesque, or later, a French Second Empire style, Virginia Tech's Collegiate Gothic

[44] Patton, "Collegiate Gothic," 3.
[45] "Preston And Olin Building, " *Virginia Tech History,* Physical Plant, accessed July 16, 2019, https://history.unirel.vt.edu/physical_plant/Preston_and_Olin_Building.html.

campus identity can be traced to one of its earliest structures that stood out from the general trajectory of American campus design. The Romanesque or Italianate style, with arched windows and bands of ornamental trim, remained popular at institutions across Virginia and the nation in the second half of the 19th century.[46] The Second Empire style was first employed at Virginia Tech in 1888 with the construction of the school's original Barracks, later known as Lane Hall.

The Barracks were built between the two matching Academic Buildings, creating a more formally organized Upper Quad for the military activity of the school. Both the Barracks and the Academic Buildings were built with the utmost economy in mind.[47] Ornamentation was achieved solely through brick patterns suggesting elements of the classical tradition. The only relief from the monotonous brick facades of this era was the mansarded central tower of the Barracks (Fig.14). A mansarded tower was also added to the original Preston and Olin building at the time it was remodeled for use as the school's machine shop (Fig.18). J. Daniel Pezzoni reports that the Second Empire style was nationally popular at the time, and imported to the region from other newly developed Land-Grant institutions. He claims that Virginia Tech "began to take on the appearance of its Second Empire-style land-grant cousins in western states such as Nebraska and Nevada."[48] At odds with any early effort by these schools to exude architectural prestige, the economical Second Empire style had also come to be

[46] "The Mystery of Brooks Hall," The University of Virginia Magazine, accessed November 23, 2019, https://uvamagazine.org/articles/the_mystery_of_brooks_hall.
[47] J. Daniel Pezzoni, "Our Native Stone: Architecture and Identity at Virginia Polytechnic Institute, 1872-1922," The Smithfield Review Volume 1, (1997): Virginia Tech Special Collections, Blacksburg, Virginia. 43.
[48] Pezzoni, "Our Native Stone," 41.

associated with factory buildings. Ironically, the Virginia Tech cadets' uniforms were produced by the Charlottesville Woolen Mills, which at the time operated a factory with a striking resemblance to Lane Hall (Fig.19.[49]

J. Ambler Johnston, a Virginia Tech alumni whose architecture firm later became involved with design of the campus, claimed that "the poverty stricken factory type of Lack of Architecture hitherto employed," contributed to Virginia Tech's reputation as a, "trade school cow college."[50] Perhaps because Lane Hall stands today as Virginia Tech's earliest surviving building, and sits aligned so prominently at the center of the Upper Quad, its drab, culturally meaningless brick Second Empire architecture is often seen as a signifier of an important evolutionary step in the development of Virginia Tech's campus identity. Further, because the Corps of Cadets was for so long the center of university life, the Upper Quad buildings used by the Cadets are given undue credit in their architectural significance to the evolution of the broader campus. Figure 20 shows the Barracks as it sits today, enshrined between two recently constructed Collegiate Gothic dormitories for Cadets. J.Daniel Pezzoni and other scholars suggest that the history of Virginia Tech's campus architecture is defined by the original move towards the brick Second Empire style at the Upper Quad followed by a drastic shift towards the use of Gothic architecture built from stone.[51]

However, this thesis argues that stone architecture was a part of Virginia Tech's identity from the beginning. The Second Empire and Romanesque styles had no specific relation or meaning to the Valley of Virginia or to Blacksburg, and held no

[49] "The Bugle, 1913." Virginia Tech Yearbook. Virginia Tech Special Collections, Blacksburg, Virginia.
[50]Pezzoni, "Our Native Stone," 43.
[51] Ibid

meaning to the working classes of the Valley who attended Virginia Tech. What did hold meaning was the limestone of the Valley. Pezzoni and others report that limestone mined on the campus was not used until 1900, for Virginia Tech's YMCA building. Pezzoni argues that without the restrictions that were placed upon an official State-affiliated building, private interests could work to create quality and costly architecture for the YMCA. The YMCA building, now the Libaral Arts building, was widely celebrated at the time of its construction, and is now the oldest standing structure on Virginia Tech's campus built from stone mined on the campus.[52] Despite its use of stone, it is part of Virginia Tech's early uses of the Romanesque style. Perhaps just as the lasting presence of Lane Hall provides too firm a foundation for the narrative of the Second Empire style at Virginia Tech, so too does the survival of the Liberal Arts building help historians forget that earlier stone structures existed.

The Rock House, shown in Figure 21, is completely ignored by Pezzoni, and is only mentioned as a setting for university events, not a critical element in the campus' evolution, in Kinnear's history of Virginia Tech. This thesis argues that the Rock House, built as a residence for professors and later used as the Administration Building, is the single, definitive origin point for the use of stone on the Blacksburg campus. The Rock House was built from locally mined stone in 1877, for the express purpose of university operations.[53] It was built in the form of a traditional Virginia farm house of the period, representing an English Tidewater form being transplanted to the Valley and constructed in Valley stone. The Rock House, Virginia Tech's earliest structure built

[52] Pezzoni, "Our Native Stone," 43.

[53] "Campus Buildings". Virginia Tech History. Physical Plant. Unirel. Accessed March 10, 2020, https://history.unirel.vt.edu/physical_plant/campus_buildings.html.

from local stone, is most certainly directly connected to the entire legacy of stone architecture in the Valley of Virginia and to the deeply multicultural architectural legacy of Montgomery County. Though Virginia Tech's leadership is not known to have included any Valley Germans, the use of native stone had become, by the late 19th century, a key tenet of all Valley vernacular architecture. More so than any Romanesque, Italianate, or Second Empire edifice, the Rock House and its stone walls would have been familiar and meaningful to Virginia Tech's students. Unfortunately, the Rock House has gone completely unrecognized as the origin of Virginia Tech's "Hokie Stone" tradition.

The Rock House burned in 1900. According to Virginia Tech's directory of campus buildings, the Rock House was "mostly destroyed by fire on Feb. 2, 1900, destroying all records of the college, reports of faculty, minute books of board of visitors, and other materials."[54] Of course, stone walls remained, and were photographed, as shown in Figure 22. The Rock House was rebuilt using the remaining stone in 1904, and transformed into a more formal and significant Administration Building. It retained the format of a traditional, though more upscale, Virginia domestic structure, as shown in Figure 23, though took on architectural detailing such as heavy classical eaves with partial returns in order to integrate with the YMCA and Academic Buildings. This Administration Building, reborn from the Rock House, served as a center of University operations until Burruss Hall, Virginia Tech's iconic Collegiate Gothic stone structure, was completed in 1936. The Rock House/Administration building stood until 1950.[55]

[54] "Campus Buildings". Virginia Tech History. Physical Plant. Unirel. Accessed March 10, 2020, https://history.unirel.vt.edu/physical_plant/campus_buildings.html. Ibid.
[55] Ibid

Soon after rebuilding the Rock House, Virginia Tech constructed an "Auditorium" in the form of a Gothic chapel in native limestone, complete with lancet arched windows and crenelated tower (Fig.23). This building stood at the present site of Newman Library. Virginia Tech President John McLaren McBryde's June 13th, 1905 report to the Board of Visitors reveals that the impetus for the material choice of the Auditorium comes directly from the Rock House/Administration Building, which had just been rebuilt in native stone. Though a number of written histories, including Virginia Tech's own buildings directory, have perpetuated the theory that the Auditorium was originally planned in brick but executed in stone due to a material shortage, no official period record of this is found. According to McBryde's Report, regarding the Auditorium, "we are anxious to build this of stone, like the new Administration Building."[56] Though the YMCA had already been built, and quite favorably received due to the use of local limestone, Virginia Tech's President did not cite this building's success as reasoning for future stone construction - he cited the choice to rebuild the Administration Building, which he understood was the original stone structure of the school and a meaningful symbol to the people of the Valley. The choice of stone for the Auditorium was intentional, and part of a direct line of campus evolution separate from and more culturally significant than that of the school's Second Empire structures of the same period.

Virginia Tech strove to quickly establish the stone buildings of the school as the basis of a future plan for campus cohesion. Evidence of this can be found in the

[56] "June 13th 1905 Report to BOV," Papers of John McLaren McBryde, RG 2/5 Box 5, Virginia Tech Special Collections, Blacksburg, Virginia.

architectural characteristics shared by each of Virginia Tech's first three stone structures. While both iterations of the Rock House/Administration Building were in the form of domestic structures, the YMCA was Romanesque, and the Chapel/Auditorium was Gothic, all three featured crenellations. The YMCA was designed with decorative copper crenelations at its roof peak (Fig.24). When the Rock House/Administration Building was rebuilt, the peak of its roof was capped with matching copper crenelations (Fig.25). The Gothic Chapel/Auditorium was then built with a tower capped by simple stone crenelations geometrically matching those applied to the two earlier stone structures. The Romanesque features shared by the YMCA and the old Academic Buildings were forgotten, and the YMCA was visually grouped with the new Chapel and rebuilt Rock House. Though these three structures are generally accepted by other scholars of Virginia Tech's history to be architecturally unrelated and not central to Virginia Tech's campus history, this thesis argues that together they represent an unrecognized and foundational period of stylistic cohesion in the history of Virginia Tech's campus, which largely originated in the traditional architecture of Valley of Virginia. The presence of crenelations on the Chapel, YMCA, and Rock House represent a distinct intentional design direction for the school.

Adding to the Chapel/Auditorium's credit as a meaningful and foundational structure to Virginia Tech's campus architecture is the fact that it, like the Rock House, had local historic precedent for its design. While the Rock House was directly linked to the domestic architectural traditions of the Valley, the Chapel took inspiration from local church architecture. Less than a half-mile to the north-east stands Blacksburg's Christ

Episcopal Church (Fig.26). Christ Episcopal Church was built from locally mined limestone in 1874, only two years after Virginia Agricultural and Mechanical College was established less than a block away.[57]

The Reverend Scott Allen West of Christ Episcopal Church, interviewed in June 2019, described that Virginia Tech faculty and leadership had become heavily involved in the Church by the turn of the twentieth century. Entries in Christ Church's *Vestry Minute Book: 1886-1934*, show that in 1917, Virginia Tech President John M. McBryde was re-elected as Senior Warden, a position which he held "for thirty plus years." [58] McBryde was also President of the Board. In the same *Vestry Minute Book*, William M. Brodie, Virginia Tech mathematics professor and Commandant of Cadets from 1901 until 1932, is listed as the Church's Treasurer. William Dabney Saunders, the head of Virginia Tech's Dairy Science program (known for the elimination of tuberculosis in cattle) was Junior Warden from 1896 until 1945, responsible for physical upkeep of the Church. Virginia Tech's professor of Mining Engineering, O.C. Burkhart, was the Church's Registrar. Between 1910 and 1920, an architect from Boston, Ralph Adams Cram, designed an addition for the Church in the form of a crenelated tower, which was built in 1934 (Fig. 27). Cram, the man largely responsible for the Collegiate Gothic movement in the United States, had become a personal friend of President McBryde.

The legacy of stone architecture in the Valley of Virginia and the introduction of Gothic architecture to the region were deeply intertwined with the personal lives of a

[57] "Our History," Blacksburg Christ Episcopal Church, accessed January 19, 2020. https://www.christchurchblacksburg.org/Our-History.htm

[58] The Reverend Scott Allen West of Blacksburg Christ Episcopal Church, interview by the author, June 12, 2019; and *Vestry Minute Book: 1886-1934, Christ Episcopal Church, Blacksburg.*

number of Virginia Tech's influential early figures. Further, the presence of stone architecture *and* gothic architecture in Blacksburg predate Virginia Tech's use of the architectural combination. Ralph Adams Cram, who would later have such a large impact on the development of Virginia Tech's campus, did not simply import his own architectural style to Virginia, but would have seen a cultural, ideological, and architectural alignment between the Valley of Virginia's building traditions and his own personal and architectural beliefs. In the next Chapter, the alignment of Cram and McBryde's beliefs about religion, architecture, race, and the American South will be explored. These values were shared by other leaders at Virginia Tech and were imbued into the stone buildings that were erected on the campus in the first half of the twentieth century.

Chapter Two:
Cram and McBryde's Anglo-Saxon Anti-Modernism

John McLaren McBryde was elected as Virginia Tech's fifth President on May 11, 1891. He was given unprecedented control of faculty hiring, curriculum, and buildings and grounds. He utterly transformed Virginia Agricultural and Mechanical College into a modern institution of learning. The manifold changes were reflected in the first modification to the School's name, which became "Virginia Agricultural and Mechanical College and Polytechnic Institute", later shortened to "Virginia Polytechnic Institute." McBryde is known as the "father of the modern VPI." Personally, McBryde was deeply Southern and religious. He also had a thorough understanding of architecture and design. Each of these personal characteristics had a lasting influence on Virginia Tech and its campus architecture. In the first decade of the 20th century, McBryde invited a relatively unknown architect to Blacksburg. This architect, Ralph Adams Cram, became one of the most prolific architects in history, designing hundreds of buildings, authoring or contributing to nearly 40 books, and publishing more than 150 articles.[59] Cram became acquainted with McBryde through an alignment in their personal and ideological beliefs on race, architecture, and the future of the United States of America. This relationship evidently grew to become more personal: a 1903 letter survives that

[59] Richard Guy Wilson, "Ralph Adams Cram, Dreamer of the Medieval," in Bernard Rosenthal and Paul E Szarmach, *Medievalism In American Culture: Papers of the Eighteenth Annual Conference of the Center for Medieval and Early Renaissance Studies*. Center for Medieval and Early Renaissance Studies, (State University of New York at Binghamton, 1989), 196.

documents McBryde congratulating Cram, who had just won the commission to design the new campus for the U.S. Military Academy at West Point. “My dear Mr. Cram- I am delighted… it is indeed a great victory.”[60]

John McLaren McBryde: Southerner and Leader

John McLaren McBryde’s triumphs in transforming Virginia Tech into a modern and successful institution of learning, and his architectural and social effects on the school, can be traced through his upbringing and personal life. Further, his connection with Ralph Adams Cram is directly related to his Southern and religious identity. McBryde, pictured in retirement in Figure 28, was born in Abbeville, South Carolina. He graduated from South Carolina College (later the University of South Carolina) and then attended the University of Virginia for studies in science. When rumors of Secession burst forth from his home-town of Abbeville, he returned to South Carolina in time to witness noted advocate of agricultural science and education, Edmund Ruffin, fire an opening shot on Fort Sumter, signaling Civil War. After immediately volunteering for the Confederate cause, he fought in both Virginia and South Carolina with infantry and cavalry. Later, he transferred to the Confederate Treasury, and then the War Tax Office, where he was a Divisional Chief.[61] After the Confederate defeat, McBryde returned to

[60] “June 3rd 1903 letter from McBryde to Ralph Adams Cram,” Papers of John McLaren McBryde, RG 2/5 Box 5, Virginia Tech Special Collections, Blacksburg, Virginia.
[61] *Bulletins of VPI, Alumni Register,* January 1908, 9, from Virginia Tech Special Collections Blacksburg Virginia; and Clara B Cox, “John McBryde, Miracle Worker,” *Virginia Tech Magazine,* Fall 2007.

Chalottesville, Virginia, where he operated a thousand-acre farm. He applied his scientific skills to agricultural practice and became the President of the Belmont Farmers' Club. In recognition of his work, he was appointed Professor of Agriculture at the University of Tennessee. Four years later, he had transferred to teaching at South Carolina College. He served as interim president of the College, and was then quickly offered a permanent position as its president due to his effectiveness. Wade Hampton III, the South Carolina Governor, declared him, "a wise man… a natural leader… a master mind."[62]

By 1891, McBryde had been offered presidencies at a number of other Southern institutions, but he finally accepted an offer from Virginia Agricultural and Mechanical College, which he would transform into Virginia Tech. Clara B. Cox, director of University Publications for Virginia Tech, summarizes McBryde's influence on the the school:

> *Under McBryde's leadership, enrollment increased almost 500 percent; the faculty increased six-fold; the campus spread from 10 to 100 acres; 67 new buildings were erected; six existing buildings were renovated; a drill field/athletic ground was provided; library hours increased, a sewage system was installed; extensive improvements were made to the campus farm; miles of avenues and walks were added, nearly 2,000 ornamental trees were planted; 240 barracks rooms were added to the existing 60, and the college conferred its first graduate degrees. More importantly, the college became strong academically and moved*

[62]*Bulletins of VPI, Alumni Register.*

into a position of prestige—and state financial support increased tremendously, thanks to McBryde's personal efforts.[63]

In addition to these dramatic functional improvements to the curriculum and campus, McBryde focussed on what we would now call visual branding, spatial and landscape design, and image-making. He was not only concerned with the technical aspects of a college, but also the emotional. McBryde and his son designed a new logo, seal, crest, and motto (*Ut Prosim, That I May Serve* for Virginia Tech (Fig.29[64] His time at the University of Virginia and South Carolina College had exposed him to two of the finest university landscape layouts in the nation, UVA's Lawn, and USC's Horseshoe, and undoubtedly helped forge his interest and knowledge in architecture, and his understanding of the importance of campus identity and architectural cohesion. McBryde's voice was central to Virginia Tech's decisions to build with locally mined stone in a Gothic style.

During his time as Virginia Tech's President, McBryde was appointed "chairman of the executive committee" at the newly created Sweet Briar College for women in Amherst County, Virginia. As part of this side project, he was tasked with defining all physical aspects of the new campus. Echoing Thomas Jefferson's belief that buildings alone could act as an educational force and "improve the taste of his countrymen" by "presenting them models for their study and imitation," McBryde claimed that "attractive

[63] Cox, "Miracle Worker."
[64] Ibid

surroundings and artistic buildings have a profound and lasting influence on the hearts and minds of young girls just emerging into womanhood."[65] McBryde understood both the formal and intellectual aspects of architecture, and its influence on the human experience. His actions at Virginia Tech were undoubtedly shaped by this belief, revealing distinct intention in the architectural image he crafted for the school. McBryde's understanding of architectural form is revealed in an August 1904 letter concerning the Italianate St. Angelo estate, existing on the campus at Sweet Briar, where McBryde stated that "my idea was that there should be a room on each wing to relieve the disproportion of the tower."[66] St. Angelo is shown in Figure 30. McBryde was motivated, intellectual, artistic, and thoughtful in his efforts as Sweet Briar's Chairman. To execute the careful design for the Sweet Briar campus, McBryde selected a relatively unknown architect: Ralph Adams Cram of Boston. Being a man of faith, McBryde had discovered Cram through his writings on ecclesiatical architecture in the publication "The Churchman."[67]

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[65] "Architecture is My Delight," Thomas Jefferson's Monticello, accessed March 29, 2020, https://tjrs.monticello.org/site/jefferson/architecture-my-delight; and Travis McDonald, "The architectural Significance of Sweet Briar College, The News and Advance, Lynchburg, VA, March 22, 2015, accessed November 12, 2019, https://www.newsadvance.com/opinion/mcdonald-the-architectural-significance-of-sweet-briar-college/article_b09466d4-cf38-11e4-82e5-1fc9ef6e4f93.html.

[66] "August 1904 letter regarding Sweet Briar College," Papers of John McLaren McBryde, RG 2/5, Volume 13, Virginia Tech Special Collections, Blacksburg, Virginia.

[67] Douglass Shand-Tucci and Ralph Adams Cram, *Ralph Adams Cram: Life and Architecture*, (Amherst: University of Massachusetts Press, 1995), 8.

Ralph Adams Cram: Northern and Southern Medievalism

Ralph Adams Cram was born in 1863 in Hampton Falls, New Hampshire. In Figure 31 he is pictured a few years after working with McBryde. From an early age, his parents encouraged intellectualism and learning. His mother and father, though unpublished and private, were thoughtful and intellectually prolific. Upon noticing his interest in art and architecture, they gave their son a copy of John Ruskin's *Seven Lamps of Architecture* for his fifteenth birthday. Not long after, Cram secured an architectural apprenticeship in Boston. He subsequently won an architectural competition and used the prize money to travel to Europe, visiting the structures he had read about years before in *Seven Lamps*. Cram returned to Europe in 1886, and during a Christmas Eve mass in Rome experienced an unexpected religious conversion to Episcopalianism. Not being a fully scholastic or calculated decision, Cram's religious turn can be understood as a manifestation of his childhood fantasies of the world of Ruskin's Gothic cathedrals. Cram was set on a journey towards a mystical and medieval understanding of his own world.[68]

Ralph Adams Cram became one of the driving figures behind the Collegiate Gothic movement in the United States. Most scholars conclude that his brand of Gothic architecture allowed American universities to fill gaps in their ideological continuum, assigning them a sense of heritage and legacy which their relatively short histories denied them. Cram's own writing on the subject reveals a more complex motivation. His

[68] Robert Muccigrosso, *American Gothic: The Mind and Art of Ralph Adams Cram*. (Washington: University Press of America, 1980), 3.

dedication to Gothic architecture was not simply stylistic, but also societal and political, as he believed that "the peak of protestant civilization had been reached in the fifteenth century."[69] Cram's personal interest in religion was with Episcopalianism and Anglo-Catholicism, which he discovered to be part of an ideology related to William Morris and the Arts and Crafts movement. An affinity for all things early-English drove Cram's work; he believed his creations were not a revival of a previous civilization or architectural style, but a continuation of a mode of building, designing, and living which had been unnecessarily lost at the eave of the Enlightenment[70] Because of his efforts to continue where Gothicism had left off, rather than directly copy, Cram was not afraid to experiment, innovate, and modernize. He ultimately wished to create a new solution to America's modern problems through stylistic and emotional inspiration from an imaginary past. This dreamy, contradictory ideology reflected one which had taken hold of the American South, and many American Southerners, in the antebellum era.

The Southern planter class had used Medieval ideals as a justification of slavery, interpreting and inventing their own unique and peculiar modern society. [71] The fact that Ralph Adams Cram's architecture appears in Virginia in the early twentieth century, then, is not by happenstance. Cram's personal connections to Virginia Tech's president, his raw understanding of the toll of the Civil War on the South, and his ideology's

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[69] Wilson, "Dreamer of the Medieval," 98.
[70] Douglas Shand Tucci, *Ralph Adams Cram, American Medievalist*, (The Stinehour Press for the Boston Public Library, 1975), 16; and Muccigrosso, *American Gothic,* 3.
[71] Eugene D. Genovese, "The Southern Slaveholders' View of the Middle Ages," in Bernard Rosenthal and Paul E. Szarmach, *Medievalism In American Culture: Papers of the Eighteenth Annual Conference of the Center for Medieval and Early Renaissance Studies*. Center for Medieval and Early Renaissance Studies, State University of New York at Binghamton, 1989. 37.

alignment with an unfulfilled dream of Southern agrarianism all point to a deeper connection between Cram and the American South than has previously been explored. His architecture in Virginia represents the post-Reconstruction fulfillment of the stunted antebellum dream of agrarian Medievalism. The complex Southern Medievalist ideologies Cram shared with president McBryde became central to the spirit of Virginia Tech itself.

Anti-Modern Ideology: Gothic Architecture in the South

Ralph Adams Cram's architectural career was an attempt to realize his dreams of a Medieval civilization for the United States. Cram famously designed the buildings, and entire campuses, for a number of the United States' most prominent universities, shaping the upbringing and education of a generation to come. The majority of these educational works, as well as a majority of his church designs for which he was most famous, are located in New England. Cram and his firms designed buildings and campuses for West Point (Fig.32) and Princeton (Fig.33), as well as churches in Massachusetts, New York, Rhode Island, New Hampshire, and Pennsylvania, among others. This prolific work not only represents Cram's dedication to a style of architecture which he believed was superior to much of that created by modern industrialized society, but it represents his connection to the social and political ideals of William Morris and the Arts and Crafts movement. This movement had a distinct popularity in

Cram's home of Boston and its surrounding areas; Cram was an influential member of the Boston Society of Arts and Crafts, which pushed collaboration between craftsmen, thinkers, and designers. Medieval gothic architecture exemplified these goals with its use of traditional materials and thoughtful hand-construction. It was also a visual reference to an idealized and imagined preindustrial society, which Cram valued over the modern industrialization of the North. To further perpetuate these ideals, Cram helped found the Medieval Society of America, and "published a magazine called the *Knight-Errant*, emulating Morris's fine art printing that was inspired by Medieval manuscripts."[72] Cram's architecture was a part of a larger system of ideology and mythology that attempted to use the past as a solution to the present and future's problems. These were not only solutions intended for the future of the industrial North, however. Cram's vision was one for the future of the English speaking race.[73] His theories could be applied anywhere, but found a distinctly fitting home in the American South, where the legend of the chivalric gentleman had convinced many men that they too were knights-errant.

Ralph Adams Cram designed a number of notable buildings and campuses in the South. At the request of president McBryde, Cram executed the full master plan for Sweet Briar College in Virginia, shown in Figure 34. By 1910, he had been hired to design the new campus for the University of Richmond in the Gothic style. Figures 34 and 35 respectively show a 19th century aerial view of the campus, and a drawing of

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[72] Mauree Meister, *Arts & Crafts Architecture: History and Heritage In New England*. (Hanover, London: University Press of New England, 2014), 18

[73] Paul Charles Kemeny, *Princeton In the Nation's Service: Religious Ideals and Educational Practice, 1868-1928*, (New York: Oxford University Press), 1998, 137.

Ryland Hall, the central building to his original plan. The decision to build a Gothic campus was somewhat controversial. A member of the Law Faculty at Washington and Lee University, Joseph R. Long, wrote to President F.W. Boatwright of the University of Richmond, warning him that building a Gothic campus would not only be costly, but that it would be inappropriate because it would not be culturally Virginian.

From the letter:

> *The Gothic is inappropriate for Richmond College for these reasons at least… It is not Virginian. Certainly another element of beauty is appropriateness, and the colonial type is the great Virginia style of architecture. It was not only the great intrinsic beauty but the appropriateness as well that made the buildings of the Jamestown exposition so beautiful, so greatly admired by architects and people of taste.*[74]

This type of viewpoint, undoubtedly shared by others in a state with an inordinate bias for the neoclassical, unseats both Richmond and Virginia Tech's gothic architecture as a legitimately Southern style. This exclusionary and narrow characterization of what is "Virginian" specifically acts to erase the distinctly Virginian origin of Virginia Tech's architecture. Additionally, it is these viewpoints which obscure the meaning of Ralph

[74] "Original Campus Architecture," Centuries, University of Richmond, accessed March 12, 2020, http://centuries.richmond.edu/exhibits/show/campusarchitecture; and "April 22, 1911 letter from Joseph R. Long to President F.W. Boatwright," Virginia Baptist Historical Society, accessed March 12, 2020, http://centuries.richmond.edu/files/original/ff143431789ad8cd703df7fb8bca9b30.pdf.

Adams Cram's architecture in the American South. Cram's architecture, despite any aesthetic or lack of understanding, was ideologically Virginian and Southern.

Douglas Shand-Tucci, author of the most notable biography on Cram, only gently suggests that Cram's wife, a native Virginian, may have facilitated his connection to the Commonwealth.[75] The association of Ralph Adams Cram's wife, Elizabeth Carrington Read, with Virginia, cannot be so easily dismissed, as it is crucial to our understanding of Cram's knowledge of the American South, and what he may have thought of his Gothic architecture being implemented in such an environment.

It is important to note that at this stage, Ralph Adams Cram's understanding of the South was one of stereotypical white-columned mansions. At first, he had actually shared an architectural belief with the Washington and Lee professor who would later criticize his work. His design for Sweet Briar College, in a neoclassical style, reflects this view. When discussing the design process for Sweet Briar, Cram stated that when he began he "really knew nothing, through personal contact, of the more ample, courteous and generally aristocratic Georgian [architecture] that still exists south of Mason and Dixon's Line." At this time, Cram had been married to "Bess" Carrington Read for only two years, and his idea of the South was still centered on Goergian architecture. But through his wife's familial connection to the South, Cram quickly came to understand a more realistic version of what the "survivals of a beautiful and spacious, but slaughtered past, had to offer as architectural evidence of a great culture."[76] Over time, through his

[75] Meister, "*Arts & Crafts Architecture,"* 18
[76] Shand-Tucci "*Life and Architecture,*" 13.

marriage, he came to more fully understand not only the architectural, but also the personal and ideological meaning of this "slaughtered past" that was the Old South.

Bess Carrington Read was deeply Southern. She was descended from two First Families of Virginia. According to Ralph and Bess's daughter, as reported by Shand-Tucci, Bess had a "high sense of personal and family honor," and exhibited "aristocratic values," and "gallantry." Cram's daughter goes on to describe the architect's attraction to her mother:

> *The very fact that she is a daughter of the Lost Cause of the Confederacy and a beautiful exponent of Southern aristocracy must have appealed instantly to a romantic visionary [such as Cram]* ***to whom all lost causes were sacred.*** [77]

Bess's father had attended Hampden-Sydney College, and the University of Virginia, before serving as a captain in the Confederate Army. The War took its toll. According to Shand-Tucci, Bess's father, "as much as anyone, was a casualty of the War, a war we too often forget was lost by Americans, too. He committed suicide."[78] To Bess, the Lost Cause was all too real. It represented true loss not only of an imagined idealized society or lifestyle but of family and love. From this, Bess never recovered. Her mental state was forever fragile after her father's death, and it had negative implications on her relationship with Cram. She was eventually institutionalized, and

[77]Shand-Tucci "*Life and Architecture,*" 8.
[78] Ibid.

Cram never saw her again.[79] Cram's understanding of the South's Lost Cause then would have become not just an object of fascination, but one of personal loss and strife. Cram understood firsthand the destruction caused by the Civil War.

While Shand-Tucci recognizes Bess's Southern identity as an influential factor in Cram's life, he fails to associate it with Cram's Southern architecture. Instead, he relegates it to a justification for attraction between the architect and his wife.[80] Further, when Shand-Tucci investigates Cram's Southern architecture in *Ralph Adams Cram: An Architect's Four Quests,* he claims that Bess was instrumental only in introducing Cram to the Georgian style, and not to the more broad social history of the South.[81] This thesis argues that Ralph Adams Cram's Gothic Southern architecture was ideologically intertwined with his personal life and marriage.

The Lost Cause and the lifeways of the antebellum South in fact align very closely with Cram's nineteenth century ideologies of the Arts and Crafts and Medievalism. Cram, with his painfully intimate understanding of Southern culture, would have known of, or would have noticed, this connection. According to Eugene D. Genovese, the "aristocratic" values that defined the quintessential Southern gentleman, such as "gallantry…polished manners, and a high sense of personal and family honor… were widely perceived and cherished as products of the High Middle Ages, and

[79] Margaret A. Brucia, "The Curious Affair of Ralph Adams Cram," The Gotham Center for New York History, October 31, 2017, accessed April 6, 2020, https://www.gothamcenter.org/blog/the-curious-affair-of-ralph-adams-cram.
[80] Shand-Tucci, "*Life and Architecture,*" 8.
[81] Douglas Shand-Tucci, "Ralph Adams Cram: An Architect's Four Quests," (University of Massachusetts Press: August 10, 2005), 12.

specifically, of feudal and manorial life." This feudal social structure of the Middle Ages provided "support for the paternalism that mediated master-slave relations."[82]
The Southern planter class truly believed themselves to be gallant knights in armor. The cavalry of the Confederacy, in capes and plumed hats, had lived out part of their medieval fantasy in a shockingly realistic manner. Cram found in the slaughtered past of the South a fascination with Medievalism that aligned with his own anti-modern, feudal, racial, and social ideals for the future of the United States. Cram saw blatantly before him a direct alignment between two lost causes; that of the unnecessary end to Europe's religious, practical, and moral pre-Enlightenment world, and that of the extinguishing of the Old South's hopes for the future by the North's industrial-capitalist version of modernity.

In the American South, Reconstruction and the end of plantation society represented a shift away from previous efforts to define modernity. Before the American Civil War, the South had created its own visions of modernity, built on the backs of African slave labor and strategically designed to bring chattel slavery, strict social hierarchy, and Old South aristocratic decorum into the twentieth century and beyond. The fact that we today refer to these social constructs as being part of the *Old* South should not be allowed to diminish our understanding that slave-holding Southerners had also, like their Northern counterparts, attempted to create a modernity of their own.

[82] Eugene D. Genovese, "The Southern Slaveholders' View of the Middle Ages," in Bernard Rosenthal and Paul E. Szarmach. *Medievalism in American Culture: Papers of the Eighteenth Annual Conference of the Center for Medieval and Early Renaissance Studies* (Center for Medieval and Early Renaissance Studies, State University of New York at Binghamton), 1989. 34.

Eugene D. Genovese, the prominent political theorist and historian of the American South, argues that the slave-holding class of Southerners, in order to reconcile chattel slavery with "the most democratic republic the world had ever seen," were consciously designing "a new world of sorts," that "rested on the master-slave relation." Existing within the context of "modern" technologies and "modern" politics, yet relying on an outmoded and antiquated type of labor and social structure which had been in its entirety condemned as immoral, required not antiquated justifications but new ones which had never before been seen. Southern slaveholders, then, "thought of themselves as modernists or progressives of a kind." According to Genovese, this type of society "lacked models and precedents." We are reminded by Genovese that "the slaveholders as a class, and their intellectuals in particular, were 'modern' men who accepted the world of the nineteenth century, with its idea of progress, its railroads, telegraph, steamships, and with the rest of what the industrial revolution was making possible.[83] However, as much as they celebrated the technological advancements that industrialization made possible, they lamented the free-market social structure that drove them.

Thus, at the core of the slaveholders' imagined modern future was a push towards modern technological industry and its riches, somehow combined with the avoidance of the free-market system and its consequent rise of a bourgeois class. The slaveholders who controlled Southern society could not maintain mastery of their world and enjoy the fruits of social hierarchy if a merchant business class grew in strength as

[83]Genovese, "The Southern Slaveholders' View," 44.

it had in the North. The opportunities for class mobility offered by free market capitalism threatened the hierarchical, paternalistic social structure that the South's economic productivity and social stability depended upon. As such, in a comparison of the South to other nations or societies in the transatlantic world, Genovese states that "the fate of the South and of slavery depended upon the outcome of a worldwide struggle between competing social systems." The Civil War was the ultimate deciding factor between the structured, immobile socioeconomics of the South and the free market capitalism of the North. The South, Genovese argued, "which, from antebellum times to the present, has always been anticapitalist," had sought to create "a startlingly new world" which functioned "through the moral, ideological, and material extension of slavery and related forms of social subordination." The slaveholders pushed towards a "worldwide revolution against the social relations of the marketplace." While the claim of anti-capitalism within a society based on the sale of produced goods may seem at surface-level to be improbable, Genovese explains that the slaveholders goals differed significantly from those of the bourgeois free-capitalists of the North; the former sought to maintain social hierarchy by accumulating wealth, their only goal being only the maintenance of power and personal freedom. The latter valued class mobility, and had the "historically specific" motive of "capital accumulation, of making money to make more money."[84] Ultimately, the Old South's plan for modernity was an imaginary future with no moral or functional possibility for sustainability. As Genovese states, the

[84] Eugene D. Genovese, "The South in the History of the Transatlantic World," in Shearer Davis Bowman, Kees Gispen and Porter L. Fortune, Chancellor's Symposium on Southern History University of Mississippi. *What Made the South Different?: Essays and Comments* (Jackson: University Press of Mississippi),1990. 11-14; and Genovese, "The Southern Slaveholders' View," 48, 44, and 36.

Southern slaveholders "thereby plunged into a contradiction from which they could not escape and which exposed them as men who were desperately fighting for a future based simultaneously upon some form of pre-capitalist social relations and on the material progress that had been affected by the overthrow of those very relations."[85]

After the Civil War and into the twentieth century, Northern economics subsumed the social hierarchy of the Old South and unsettled the socioeconomic stability of the planter class. White Northern and Southern entrepreneurs were offered a chance to capitalize on Southern resources and labor. The "New South" that emerged from reconstruction was a South rebuilt in the image of the North.[86]

This Northern image was one which Ralph Adams Cram's Arts and Crafts societies, and William Morris's before him in England, had been fighting against. Morris had been a devout and active socialist. Cram, like the Old South plantation classes, sought to create a different modernity than the one which became American reality after the Civil War. In his 1989 "Ralph Adams Cram and the Americanization of the Middle Ages," Michael D. Clark's argues that Cram was "temperamentally and intellectually the partisan of what he conceived to be medieval values against those of modernity."[87] The industrial revolution and subsequent Northern industrial capitalism was an immoral scourge upon humanity which had stripped away faith, traditional social and personal relationships, and the beautiful and bountiful products of collective handiwork.

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[85] Genovese, "The Southern Slaveholders' View," 44.

[86] Patrick Gerster and Nicholas Cords. *Myth and Southern History*, (Urbana: University of Illinois Press), 1989, 64.

[87] Michael D. Clark, "Ralph Adams Cram and the Americanization of the Middle Ages,"Journal of American Studies, Vol. 23, No. 2 (Aug., 1989), 195-213.

When Ralph Adams Cram designed Gothic architecture for the South, he knowingly symbolized the Old South plantation owners' desire to return to their Medieval past of gallantry, faith, and societal hierarchy, as well as Southerners' twentieth century desire to return to the Antebellum era. Cram, and his Southern intellectual peers, were odd bedfellows within the broader American trend known as "antimodernism."

The South's failure to create a Medieval feudal version of modernity is interwoven with the failure of the Confederacy, and therefore the Lost Cause. The unattained societal goal of feudalism, elevated personal honor, and strict class relations would have been understood by Ralph Adams Cram, and he would have understood the South's Lost Cause to reflect the loss of his own version of what medieval society represented. By bringing Gothic architecture to the South in the post-Reconstruction era, Ralph Adams Cram fulfilled the South's fantasy, and gave it a new architectural identity rooted in the idea of what it had supposedly once been. The wind could not carry away stone.

As a Southerner, Confederate Veteran, agrarian, and intellectual, Virginia Tech's President McBryde's personal identity, political viewpoints, and life outlook would have been wholly immersed in this fetishization of the feudal, medieval, chivalrous ideals of the American South. His appointment to Virginia Tech's presidency, and his acceptance

of the position, demonstrate Virginia Tech's institutional ideologies of Southern agrarianism and Confederate memorialization.

On Virginia Tech's founding Board of Visitors in 1872 were four Confederate Veterans: Confederate General W. H. F. "Rooney" Lee, son of Robert E. Lee and president of the State Agricultural Association, Confederate General Joseph R. Anderson, Confederal Colonel John. E Penn, and Confederate Major William T. Sutherlin. Virginia Tech's first Commandant of Cadets was Confederate General James H. Lane. The first trip the Corps took as a group was to the dedication of the Robert E. Lee monument in Richmond. Harry Downing Temple reports in his 1992 history of the Corps and its uniforms, *The Donning of the Blue and the Gray,* that Lane directed formations from horseback while Cadets marched under the Virginia flag alone. Lane himself designed the Cadets' uniforms to mimic those of a commissioned Confederate officer, as shown in Figure 37. Cadets rallied around such symbols; the first Cadet periodical was titled "The Gray Jacket," and contained news of local confederate memorialization. The third president of Virginia Tech, Thomas Nelson Conrad, had been part of a Confederate Secret Service mission to kidnap Abraham Lincoln.[88] John

[88] "Board of Visitors Rector and Member Archive," Virginia Tech, accessed April 8, 2020, https://bov.vt.edu/member-archive.html; and "A History of the Corps of Cadets," Virginia Tech, accessed March 28, 2020, https://vtcc.vt.edu/about/history.html; and Harry Downing Temple and Floyd Richard Vranian, *Donning the Blue and Gray: A Pictorial History of the Cadet Uniforms of the Virginia Agricultural and Mechanical College and the Virginia Polytechnic Institute*, (Richmond, VA: William Byrd Press, 1992), 8; and "1876. The Gray Jacket," Ivan Morozov Photography, Memorabilia, accessed April 10, 2020. https://www.ivanmorozov.com/memorabilia/other/1876-gray-jacket; and "The Confederate President," Collegiate Times, March 21, 2017, accessed April 10, 2020, http://www.collegiatetimes.com/the-confederate-president/article_9de2184e-1b06-11e7-8676-43797fd9220b.html.

McLaren McBryde, of Abbeville, South Carolina, was the fifth president of an institution that wholeheartedly supported his own views.

When McBryde read Ralph Adams Cram's work in "The Churchman," he knew that Cram would share his racial, religious, and architectural viewpoints, and he may have already foreseen the alignment between Northern and Southern Anglo-Saxon anti-modernism[89] At the turn of the century, Southerners and Northerners alike struggled with the onslaught of modern capitalist society. Taylor Jetmundsen reports that at the turn of the century:

> *"the antimodernist impulse was a serious longing for an intense experience by upper class Americans, who felt betrayed by the false promises of modernity... they sought to enhance their world by rediscovering those parts of human experience that they believed had been lost in a rational, industrial society. Several of these men found these experiences in a fantasized Anglo-Saxon past, which they emphasized as an ideal time when individual achievement and religious fulfillment were emphatically joined."*[90]

Jetmundsen argues that the Collegiate Gothic movement was not meant only to add clout to American universities through simulated age-value and visual suggestions towards the already-venerated buildings of Oxford and Cambridge, as

[89] Shand-Tucci, *"Four Quests,"* 12.

[90] Taylor Jetmundsen, "'Our Anglo-Saxon Blood': How Belief in Anglo-Saxon Racial Supremacy Connected Men at the University of the South Architecturally and Ideologically to the Larger Nation from 1886-1912," 4-8.

the common narrative correctly reports. Additionally, the Collegiate Gothic architectural style was a symbol of Americans' racial connectivity, and subsequent rightful inheritance, of democracy, purity, morality, and other characteristics that had been assigned to an imagined English tradition. As defined by Jetmundsen, "Collegiate Gothic was an American architectural style born from an antimodernist desire to educate and inspire the students living and studying at these colleges by promoting their view of Anglo-Saxon morality through architecture."[91] The ideals promoted at 20th century American universities with Gothic campuses were, at their core, racial theories. Princeton, with Woodrow Wilson as its president, and Ralph Adams Cram as its architect by 1906, constructed new buildings in the Collegiate Gothic style as a direct signifier of the school's commitment to the "English speaking race."[92]

Ralph Adams Cram's views on the connection between race and architecture had been in development for some years. In 1904, Cram published *The Works of Messrs. Cope and Stewardson*, in which he critiqued and celebrated the firm's origination of the Collegiate Gothic style, principally focussing on their design for the gothic campus at the University of Pennsylvania, shown in Figure 38. In the 1904 work, Cram explored the racial foundations of architectural style. He argued that while a number of architectural styles, such as the classical Roman, have logical virtue and should be commended as beautiful and successful in a rational sense,

[91] Jetmundsen, "Anglo-Saxon Blood," 14.
[92] Kemeny, "*Princeton In the Nation's Service,"* 137.

that the intrinsic draw of a person of the Anglo-Saxon race towards traditional English architecture was unshakable. He declared that even standing among Roman monuments, “one thinks back to Oxford and Cambridge and Winchester, and the subtle obsession of the ivied Old World, the call of inextinguishable race memory enters in and blots out reason and analysis.”[93] In Cram’s eyes, logic and beauty were at odds, and beauty depended upon the race of the beholder.

Cram’s race-based architectural language found an entry point into the American South at the turn of the twentieth century. Silas McBee, an architect from Atlanta with strong personal involvement in Episcopalianism, approached Sewanee: The University of the South with a plan for an entirely new Collegiate Gothic campus. The University, steeped in Southern traditionalism, accepted his plan, with an understanding of its racial connotations; faculty there believed and taught that democracy, freedom, and superiority of Britain and the United States were direct results Anglo-Saxon heritage. Military prowess and masculinity were required for the maintenance of democracy, and these qualities were believed to be found in sufficiency only in the English race. This nationally-popular sentiment fueled the United States’ 20th century imperialist mission to evangelize the virtues of English democracy, and press the system upon the Western hemisphere. Further, the ideology was at home in the South, where boys were educated as knights-errant, defenders of their heritage of independence, self-reliance, mastery, and honor.

[93] Ralph Adams Cram, “The Work of Messrs. Cope and Stewardson,” in The Architectural Review, Bates, Kimball, and Guild, Volume 11, (January - December 1904), 411.

Gothic architecture became a requirement for the University of the South, in its attempt to provide an environment that fostered proper English and Southern masculine qualities.[94]

For the design of the University of the South's chapel, the centerpiece of its new Gothic campus, McBee brought in his colleague and friend, Ralph Adams Cram. The Chapel, shown in Figure 39, would be Cram's first foray into Southern architecture. According to Jetmundsen, "McBee and Cram had been collaborating on church architecture since at least 1899."[95] Additionally, McBee was a publisher. Jetmundsen reports that McBee edited an Episcopal paper titled "The Churchman", which published Cram's work.[96]

When Virginia Tech president John McLaren McBryde, a man heavily involved in the Episcopal faith and fluent in architectural thought, read Ralph Adams Cram's words in "The Churchman", he became fully aware of the alignment between his own Lost Cause beliefs and Cram's understanding of the antimodernist Gothic movement. What Cram had written in "The Churchman" that so impressed McBryde was a doctrine of the appropriate style of ecclesiatical architecture for the English speaking race.[97] From this moment, the association of Cram and McBryde represented the marriage of Northern and Southern antimodernism. McBryde and Cram's personal

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[94] Jetmundsen, "Anglo-Saxon Blood," 34.
[95] Jetmundsen, "Anglo-Saxon Blood," 28.
[96] Jetmundsen, "Anglo-Saxon Blood," 7.
[97] Ralph Adams Cram, *Church Building: A Study of the Principles of Architecture in their Relation to the Church* (Boston, Small, Maynard & Company, 1901), accessed December 12, 2019, https://archive.org/details/churchbuildingstu00cram.

relationship was built upon the idea of Anglo-Saxon antimodernism, and the hope to return to an imagined idyllic past. Whenever Cram worked with McBryde on collegiate architecture, it was a product of these shared values. Virginia Tech, with such strong Confederate and agrarian ties, was a natural home for Cram's ideas and architecture.

While Cram was designing Sweet Briar College under McBryde's direction, the pair visited Blacksburg. Cram toured the Virginia Tech campus, and observed what he would have recognized as an existing architectural practice of building in stone. He drew a "hasty scheme" for the future development of the campus in stone, and assumedly, the Collegiate Gothic style.[98] Cram would have recognized the combination of the YMCA, the Rock House, the Auditorium and McBryde's Christ Episcopal Church as an opportunity to build on an existing tradition of stone, religion, Medievalism, and Gothic architecture.

Ralph Adams Cram never executed a master plan for Virginia Tech's campus. President McBryde, aging rapidly under the stresses of his duties, resigned in 1907. He was awarded Virginia Tech's first Honorary Doctorate, and became its first President Emeritus.[99] After his retirement, McByrde stayed in contact with Cram through Christ Episcopal Church, for which Cram designed the crenelated tower addition (Fig.27). No documentation has been found to suggest that Cram ever visited Blacksburg again. However, his influence on the campus was just beginning to take shape.

[98] July 16th, 1913 Letter from Eggleston to Carneal and Johnston.The Papers of Joseph D. Eggleston. R/6 2/7, Box 4. Virginia Tech Special Collections, Blacksburg, Virginia.
[99] Cox, "Miracle Worker."

When President McBryde retired, the Virginia Tech Board of Visitors appointed noted eugenicist Paul Barringer as Virginia Tech's next President, shown in Figure 40. Barringer had previously been the Chairman of the Faculty at the University of Virginia, where he revised the University's medical curriculum. Barringer's viewpoints on race, the American South, and the Confederate legacy aligned with the existing feelings at Virginia Tech; his father was a Confederate general, and his uncles by marriage were none other than Stonewall Jackson and D.H. Hill.[100] By the time he was hired at Virginia Tech, Barringer was already a published author on the topic of race as it related to science, medicine, and social theory. In his 1900 book, *The American Negro, His Past and Future,* Barringer had declared that:

> *I will show from the study of his [the negro's] racial history that his late tendency to return to barbarism is as natural as the return of the sow that is washed to her wallowing in the mire. I will show that the ages of degradation under which he was formed and the fifty centuries of historically recorded savagery with which he came to us can not be permanently influenced by one or two centuries of enforced correction if the correcting force be withdrawn.*[101]

Paralleling Cram's use of history, architecture, and religion to justify and symbolize Anglo-Saxon superiority was a national effort to employ science and medicine as proof of African inferiority. That Virginia Tech would seek out Barringer, a

[100] "Paul Brandon Barringer," NCPedia. Accessed April 8, 2020, https://www.ncpedia.org/biography/barringer-paul-brandon.
[101] Paul Barringer, *The American Negro, His Past and Future*, (Raleigh: Edwards and Broughton, 1900).

man at the forefront of the most blatant racism in our nation's history, reveals that the school's leadership was not only interested in upholding the values of Anglo-Saxon heritage, but also in identifying and ideologically subjugating what they believed to be the negative characteristics of other ethnicities. Barringer espoused a radicalized and actioned version of what Cram had explored through architectural thought. Barringer, however, had no association with Cram. He seems to have had no interest in employing architecture as a manifestation of his views; he supervised virtually no changes or improvements to the physical plant of Virginia Tech during his presidency. His term as the school's leader was short, and fraught with tension due to his lack of support for engineering.[102]

In 1913, the Board replaced Barringer with Joseph Dupuy Eggleston (Fig.41), former Superintendent of State Schools who has been noted in this thesis for his praise of the new campus at James Madison University.[103] Eggleston's understanding of architectural identity would result in a rekindling of Virginia Tech's relationship with Ralph Adams Cram. It was during Eggleston's presidency that Virginia Tech fully adopted its Collegiate Gothic campus identity.

[102] "Barringer Hall," Virginia Tech Buildings, accessed April 5, 2020, https://vt.edu/about/locations/buildings/barringer-hall.html.
[103] Clara B Cox, "Joseph D. Eggleston Jr: One Pushy Man," *Virginia Tech Magazine,* Winter 2008.

Chapter Three:
The Blacksburg Buildings of Carneal and Johnston, Architects

Joseph Dupuy Eggleston's first actions as president of Virginia Tech bolstered agricultural education. He made a number of functional improvements to Virginia Tech's agricultural extension program, through which the school could educate Virginians on scientifically proven farming practices. Kinnear claims that "Eggleston's real love was his agricultural extension program."[104] While extension work may be of more note to the historian of institutional and local agricultural history, and is central to the fulfillment of Virginia Tech's Land Grant mission, Eggleston's most lasting and evident legacy at Virginia Tech is in the changes he made to its campus. Eggleston devoted significant energy, in the face of stiff opposition, to the full adoption of a cohesive architectural identity for Virginia Tech.

Eggleston's push towards an improved Virginia Tech campus could be interpreted certainly as unprecedented, or potentially as subversive and extreme. An unexplained and convenient fire destroyed the original Preston and Olin building in June 1913, severing Virginia Tech's spatial reliance on the Town of Blacksburg. After the fire, Eggleston immediately proposed that a new Shops building be built closer to the core of campus, near what is now the Drillfield.[105] By July 16th, Eggleston had already written to

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[104] Duncan Lyle Kinnear, *The First 100 Years: A History of Virginia Polytechnic Institute and State University*, (Blacksburg: Virginia Polytechnic Institute Educational Foundation, 1972), 232.
[105] "Preston And Olin Building," Virginia Tech History, Physical Plant, accessed March 21, 2020. https://history.unirel.vt.edu/physical_plant/Preston_and_Olin_Building.html; and Kinnear, "First 100 Years," 238.

the architectural firm Carneal and Johnston, asking them not only to design a new shops building, but also a " a scheme for the future building and architectural development of this institution." Eggleston frequently sought guidance from the aging McBryde.[106] Though shocking, it is not unreasonable to suggest that the burning of the original shops building, the hiring of Carneal and Johnston, and their subsequent half-century of Collegiate Gothic design work in Blacksburg was planned and set into motion in conversations between McBryde and Eggleston.

Carneal and Johnston was a Richmond-based architecture firm, operated in part by Virginia Tech alumni J. Ambler Johnston. In addition to Johnston's personal connection to Virginia Tech, the firm undoubtedly had connections to McBryde and Virginia Tech through Ralph Adams Cram. Carneal and Johnston had been Ralph Adams Cram's subcontractor for the construction of the University of Richmond's Gothic campus. The firm, when they were hired by Virginia Tech, had only designed a handful of non-residential structures.[107]

Lawrence Priddy, the man who had secured funding to build the extremely successful YMCA Building, wrote a letter to Eggleston on July 24th, 1913, voicing marked concern for hiring an unknown and inexperienced firm:

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[106] July 17th Letter from Carneal and Johnston to Eggleston, The Papers of Joseph D. Eggleston RG2/7 Box 4; and July 16th, 1913 Letter from Eggleston to Carneal and Johnston, The Papers of Joseph D. Eggleston RG2/7 Box 4, Virginia Tech Special Collections, Blacksburg, Virginia.

[107] "Architects of Richmond: Carneal & Johnston," Architecture Richmond, accessed March 21, 2020. https://architecturerichmond.com/2013/11/14/architects-of-richmond-carneal-johnston/; and "A Guide to the Carneal and Johnston Architectural Drawings, 1939-1968" Virginia Heritage, accessed March 3, 2020. https://ead.lib.virginia.edu/vivaxtf/view?docId=vt/viblbv00852.xml.

For the life of me I do not understand how the business men who are on the Board could think for a minute of making any such selection. Both of these men are young and inexperienced, and on their own admission have never undertaken any such task...I shall make some public statement on the subject with the hope of creating public sentiment that will force them to make a more wise selection.[108]

Eggleston's response assured Priddy that "a consulting architect of wide reputation"[109] would oversee their work. This was not yet the full truth. Eggleston had written to Carneal and Johnston gently making "merely a suggestion...coming from a layman.":

"something that Dr. McBryde, former president of the Virginia Polytechnic Institute, said to me a few days ago suggests the idea that it might be well for you to write to Mr. Ralph Adams Cram, if you feel that you know him sufficiently well to do so. Dr. McBryde said that when Mr. Cram was here a few years ago he drew a hasty scheme for the renovation of this college."[110]

[108] July 25, 1913 Letter from Lawrence Priddy to Eggleston, The Papers of Joseph D. Eggleston RG2/7 Box 6, Virginia Tech Special Collections, Blacksburg, Virginia.
[109] July 28, 1913 Letter from Eggleston to Lawrence Priddy, The Papers of Joseph D. Eggleston RG2/7 Box 6, Virginia Tech Special Collections, Blacksburg, Virginia.
[110] July 16th, 1913 Letter from Eggleston to Carneal and Johnston, The Papers of Joseph D. Eggleston RG2/7 Box 4, Virginia Tech Special Collections, Blacksburg, Virginia.

No evidence has been located in Virginia Tech Special Collections to suggest what kind of relationship may have been reignited between Carneal and Johnston and Ralph Adams Cram. Kinnear reports that J. Ambler Johnston admitted Cram had "quite an influence on our way of thinking."[111]

Carneal and Johnston successfully completed the design for the new shops building, which was dedicated as the McBryde Building for the Mechanic Arts, named in honor of President Emeritus Dr. McBryde. The building is shown in Figure 42. McBryde's son replied to the gesture in a letter to Eggleston, reporting his aging father's remarks: "I certainly appreciate Mr. Eggleston's great kindness, and shall feel complimented by the bestowal of my name on any one of the college buildings."[112]

The McBryde Building, though it faced technical difficulties throughout its life, was incredibly well received.[113] It was designed in a new, modern style of minimal and stoic Gothic architecture similar to Cram's work at West Point. It was faced entirely in native limestone. According to Harry Downing Temple, author of The Bugle's Echo, "dozens of old, unemployed Scotsmen who were stone workers," were tasked with quarrying stone from Virginia Tech's campus and shaping the blocks that became the new McBryde Building.[114] A dying art of the Valley of Virginia, and a living connection to

[111] Kinnear, "First 100 Years," 238.
[112] March 31,1914 Letter from J.B McBryde to Eggleston, The Papers of Joseph D. Eggleston RG2/7 Box 4, Virginia Tech Special Collections, Blacksburg, Virginia.
[113] Kinnear, "First 100 Years," 39.
[114] Harry Downing Temple, *The Bugle's Echo : a chronology of cadet life at the Military College at Blacksburg, Virginia, The Virginia Agricultural and Mechanical College and The Virginia Polytechnic Institute,* (Virginia Tech Corps of Cadets Alumni, 1996), 1701.

the Valley's tradition of stone construction, was reinvigorated by the efforts of Virginia Tech.

The McBryde Building's exterior (Fig.42) featured a central, stocky crenelated tower subdivided into four masses, surrounded by a one story shop space. The lancet arched entrance to the building was capped by a second story bay window in cast stone. Applied to the base of the bay were five cast stone sculptural panels, manufactured by Economy Concrete Company of New Haven, Connecticut.[115] Shown in Figure 43, they depict men performing different tasks related to the mechanical arts, such as operating a drill press, flattening wood with a plane, turning wood on a lathe, or cutting threads with a die. This type of celebration of hand-work was part of the antimodern, Anglo-Saxon, Medieval belief system that so powerfully influenced McBryde, Cram, and now Eggleston and Carneal and Johnston.

In addition to referencing the Anglo-Saxon Medievalism of Virginia Tech's leadership, the McBryde Building placed Virginia Tech on architectural par with prestigious universities around the United States. While Medievalism was an ideology that took hold of elites and intellectuals throughout the nation, the Collegiate Gothic style had simply taken hold of the nation as a whole. At the turn of the century, universities with the money to do so were commissioning Collegiate Gothic campuses. Common Virginians, or other Americans without access to or interest in the high-minded ideals of Medievalism, would have simply seen Gothic buildings and associated them with prestige. With the initiative set forth under McBryde's leadership, Virginia Tech was

[115] June 4, 1914 Letter from J. Ambler Johnston to Economy Concrete Company, New Haven Conn. RG2/7, Box 4, Folder #333 McBryde Building, Virginia Tech Special Collections, Blacksburg, Virginia.

quickly moving from a state agricultural institute to a full university on the national scale. Architecture that visually equaled that at Princeton, the University of Chicago, and West Point was one element among many that helped Virginia Tech ascend towards collegiate renown. The distinct similarities between Ralph Adams Cram's West Point architecture and Carneal and Johnston's buildings at Virginia Tech would have been a direct and public claim that Virginia Tech's Cadets were equals to those at the United States Military Academy. Virginia Tech, in adopting a modern Collegiate Gothic style, publicly presented the fact that its leadership was in Medievalist intellectual alignment with the leadership of other prominent universities, and more generally created a publicly recognizable signifier of its success and importance.

Further, the choice of the Collegiate Gothic style showed blatant disregard for Thomas Jefferson's architectural and intellectual influence. Such a statement provided a stronger foundation from which Virginia Tech could do battle with the University of Virginia; the two schools had constantly vied for legislative funding and state recognition, dating back to the University of Virginia's attempt to secure the State's Land Grant funds. The shadow of Jefferson and the predominance of the University of Virginia had to be overcome if Virginia Tech was to become permanently successful. Disregard for the University of Virginia's architectural importance was an easily understood symbol of differentiation. To the intellectually inclined, the specific selection of the Gothic style was a visual rejection of Jefferson's Enlightenment thinking and an adoption of an older, Medieval and ecclesiastical educational model.

The McBryde Building, being the result of the Valley of Virginia's architectural tradition, Cram and McBryde's Medieval ideals, and an effort to improve Virginia Tech's public image, is a reflection of local, regional, and national influences. The importance of Virginia Tech's new McBryde Building to local, state, and national public perceptions should not be allowed to diminish our understanding of its ability to symbolize Anglo-Saxon Medievalism to elites of the time. The building set both the aesthetic and intellectual status quo for the next half century of Virginia Tech's campus architecture. Eggleston, together with the architectural understudies of Ralph Adams Cram, had established a true architectural identity, an identity which had been developing in Blacksburg since the inception of Virginia Tech.

For the next half century, Carneal and Johnston built nearly two dozen Collegiate Gothic buildings on Virginia Tech's Blacksburg campus. After the success of the McBryde Building of Mechanic Arts, as it came to be known, Carneal and Johnston designed Sandy Hall, at the south-east corner of the Drillfield, shown in Figure 44. Its simple, blocky facade hints at continuity with the McBryde building with a lancet arched entry, cast stone dormer window, and Gothic pinwheel medallion set into a central engaged tower with flat buttressing. The building's three story wings feature windows with cusped peaks above their transoms, set into rusticated cast stone. Sandy Hall is faced entirely in Hokie Stone. Subsequent buildings followed the same pattern, and elaborated upon it when money and space allowed.

The 1931 Dairy Husbandry Building, shown in Figure 45, features a cast stone entrance guarded by concrete gargoyles in the shape of cows, reflecting Virginia Tech's

importance to Virginia's cattle industry. Later structures, such as the twin dormitories named for Joseph Depuy Eggleston, feature incredibly elaborate, yet still flat, stark, and stripped ornamentation in cast stone. The Hokie Stone tower joining the two Eggleston dorms proudly sits above a lancet arched passageway with hammer beam ceiling (Fig.46). Cast stone angled setbacks multiple feet in depth rise towards gothic niches, heraldic symbols, shields and water spouts as part of four crenelated tower peaks. The peaks are divided by massive, simplified, masculine tracery windows with knife-edge cast stone mullions. On each side, the dormitory buildings extend supported by boxy engaged buttresses capped in cast stone. Carneal and Johnston's Virginia Tech architectural detailing verges on 1930's minimalism, echoing Cram's intent for the Gothic style to be reborn as a new modernity. Virginia Tech's campus now had a distinct architectural style, not simply a Collegiate Gothic derivative, but something wholly its own, inspired materially and philosophically by the culture of the times which the university developed.

One change from Virginia Tech's new architectural *modus operandi* was Hillcrest Hall, constructed to the south of the main campus, outside the perimeter of the Drillfield and separate from the other buildings. Hillcrest, shown in Figure 47, was built as Virginia Tech's first dormitory for women; it was still designed in the Collegiate Gothic style, but it was built in red brick with white cast stone trim. While no direct evidence has been found to explain the material decision, it hints at the stark masculine paternalism that the Germans of the Valley of Virginia had imbued in the local limestone. Stone was inextricably linked to the male gender, and brick, therefore, to the female. The strong

masculine ideal that grounded family, religious, and social structure in German Appalachian populations had been the product of their medieval European origins. So too was 19th and 20th century American medievalist philosophy a revitalization of the Old World that the Valley Germans had been borne of. Cram's Gothic architecture, while meant to symbolize English heritage, was unavoidably visually tied to all of European heritage. The meaning of stone architecture, whether filtered through German immigration or Cram's historical analyses, was the same; it symbolized the idealized financial, physical, and psychological stability provided by a paternalistic family and the social structures of the past. This was a legacy that now belonged to "Techmen," not their new co-ed counterparts.

Ralph Adams Cram's use of the brick neoclassical style at the women's Sweet Briar College has been attributed by some scholars not only to his period belief that the style was suited to Virginia and the South, as previously stated, but also that he believed neoclassical architecture was inherently feminine. In her 1981 architectural history master's thesis completed at the University of Virginia, Sarah Drummon Lanford argued that around the United States, in the work of Cram and others, there has been frequent use of the neoclassical style at women's colleges. She cites Cram's Wheaton College, and the women's campus at Duke University.[116]

This thesis argues that Lanford was only partially correct, and that material, as well as style, played a role in Cram's understanding of gendered college architecture. In Cram's own work, even greater correlation exists between women's colleges and the

[116] Sarah Drummond, Lanford, *Ralph Adams Cram As College Architect: An Historicist's Approach*, (Charlottesville, VA: 1981) Thesis (M. Arch. Hist.) University of Virginia, 1981.

use of brick than exists between womens' colleges and the use of the neoclassical. Wheaton College, Rice University, the University of Richmond, and Sweet Briar, all with red brick campuses regardless of style, either educate women primarily or have freely admitted women since their inception. On the other hand, West Point, Princeton, and Virginia Tech were all strictly men's institutions during Cram's career or lifetime; these campuses are built in stone.

While Cram's decisions about architectural style may have had a number of influencing factors not limited to gender, it appears that his material choice for college campuses was fairly strictly correlated with gender. Cram's beliefs about the Medieval period and religion were undoubtedly tied to traditional Western and Biblical views on gender roles. As stated, stone had been used in Europe in relation with the feudal master, the wealth-bearer, the center of community, and the general strength of patriarchal systems. Stone architecture was Anglo-Saxon men's architecture. Carneal and Johnston's Hillcrest Hall for women was clad in brick as a reflection of the gendered ideologies that Virginia Tech's leadership inherited from and shared with Cram.

Men were to be educated in stone buildings that symbolized their capability for paternalistic control, mastery, and protection. At Virginia Tech, Cadets were being trained to defend honor, flesh, and civilization. The chivalric ideologies of the Old South aligned with the antimodern philosophies of the early 20th century to be represented in stark, strong, masculine stone architecture. It is not a coincidence that Cram's work at West Point (Fig.32) and Virginia Tech (Fig.3) share so many formal qualities; as Senior

Military Colleges, Cram saw them as the redeemers and defenders of his ideal past and future.

The Meaning of the Buildings

The military, masculine symbology of Hokie Stone and the Virginia Tech's Collegiate Gothic style are most fully articulated in the 1926 World War Memorial Hall gymnasium, built to commemorate the sons of Virginia Tech who had perished in World War I. The building was constructed in Virginia Tech's characteristic native stone Gothic style, and it was positioned at what became the central axis of the Drillfield. It built upon the form of the McBryde Building and placed its antimodern Anglo-Saxon concepts ideologically and physically at the perpetual center of Virginia Tech's campus. The World War Memorial Hall is shown in Figure 2.

Because of the emotional importance of the structure, a significant amount of documentation has survived explaining the building's dedication ceremony and grand opening. It's meaning, directly and intentionally stated by Virginia Tech, fully announced support for McBryde and Cram's antimodern, medieval, neo-Confederate celebration of the Anlgo-Saxon race and their charge to uphold democracy. The service of "Techmen" in the Great War had been the ultimate testament to this belief in the Anglo-Saxon masculine ideal. Carneal and Johnston were not alone in planning Virginia Tech's most

influential building to date; Ralph Adams Cram himself designed the The World War Memorial Hall - the only structure of his design on the campus.

Major-General D.C. Shanks, Retired Commandant of Virginia Tech Cadets, opened War Memorial Hall's dedication ceremony on October 23rd, 1926, with a speech entitled "What the Hall Means as a Memorial." To Shanks, the ideals of Anglo-Saxon masculinity had been tested and proven in the Great War to uphold democracy. He identified the Virginian and Southern identity of Virginia Tech's veterans as the foundation of their bravery and success. From Shanks' speech:

> *...Forty-two per cent. Of all VPI alumni were in the military service. Ten men were killed, and twenty-six wounded. Six airplanes were brought down by Tech men; nine men were decorated for bravery, and twelve cited for bravery in action. If I were asked upon what foundation rests this splendid record, I would say unquestionably that it is based upon the character of the men borne upon your rolls*. ***There is scarcely one single VPI student of foreign birth. The English language and American ideals are yours by right of birth and heritage… As one who has visited every state in the union, and who is familiar with conditions in most sections of our country, I feel that the conditions above outlined can be found nowhere else as favorable as in that section of our country which lies south of Mason and Dixon's line.***[117]

[117] "Dedication of the World War Memorial Hall and the Miles Stadium at the Virginia Polytechnic Institute, on October the Twenty-Third, Nineteen Hundred and Twenty-Six," R/G 6/3/2B, Division of Operations. Specific Buildings. Virginia Tech Special Collections, Blacksburg, Virginia.

James P. Woods, a Member of the Virginia Tech Board of Visitors delivered the next speech, entitled “What the Hall Means to Virginia,” in which he recalled the entire history of Virginia’s involvement in military engagements. He declared that the new building would not only be devoted to the fallen heroes of World War One, but also to “the devotion to duty which our sons have displayed in every crisis that has arisen in the past three hundred years.” Each of these conflicts, according to Woods, was evidence of Virginia’s sons’ oath of hostility “not to one power only, but to but to every form of tyranny that enslaves the soul or chains the mind of man.”[118]

Julian A. Burruss, the man responsible for James Madison University’s cohesive campus identity, now spoke, as president of Virginia Tech, to close the dedication of the building. He hinted at the long road to a cohesive campus architecture travelled by his predecessors, McBryde and Eggleston:

> *Those of us who have been cherishing a vision of a greater VPI, with a physical plant commensurate with the important service which this institution is called upon to render, see in this magnificent structure the central unit of one side of a great oval of stone buildings which are to compose the plant of the future.* [119]

His speech announced publicly the university’s plans to complete what we know today as the Drillfield, by framing it in Hokie Stone architecture. He listed a number of

[118] Ibid.
[119] “Dedication of the World War Memorial”

construction projects that would soon help complete this vision. Giving listeners a direct image of the future of Virginia Tech's campus, he stated that *"perhaps the day may not be so far distant when a companion to this hall, in the form of a large auditorium, will face it from the opposite side of the oval."*

His speech then breaks off into eulogization of the fallen, stating that they served a higher purpose. "The important consideration is not what each generation gets out of it, but what each contributes to the progress of the race." This, evidently, in accordance with the sentiment of the time, did not refer to the human race, but to the English speaking race that was the deserved inheritor of democracy. Julian A. Burruss then stated the official dedication of the War Memorial Hall:

To the memory of the twenty-four Techmen who made the supreme sacrifice, to the memory of the nearly three thousand others, who risked their lives and their forutines, rendered unselfish and valuable sacrifice in various capacities for the preservation of civilization, we today dedicate this building.

The test of world war had been passed, and Virginia Tech's sons, sons of the South, and sons of a new version of American modernity based on an idealized history, had proven their worth and earned their racial inheritance: civilization itself, the product, they believed, of the English speaking race. Burruss concluded the event with an excerpt from the poem "In Flanders Fields." While these lines of poetry generally address the idea of a fallen soldier's higher purpose, here Burruss infuses them with

another meaning; they echo Cram and McBryde's belief that despite a period of loss, misdirection, or chaos, civilization was again on its road to freedom, guided by the imagined light of its past:

> *Fear not that ye have died for naught,*
> *The torch ye threw to us we caught,*
> *Ten million hands will hold it high,*
> *And Freedom's light shall never die!"*

In Conclusion

In 1936, the "companion..auditorium… on the opposite side of the oval"[120] that President Burruss touted in his 1926 speech was completed, as shown in Figure 2. Upon his retirement it was dedicated in his honor. Today, Burruss Hall and War Memorial Hall frame Virginia Tech's Drillfield and define the public image of its campus. Their strikingly unique aesthetic quality as Gothic buildings, castles, even, in a rural Virginia landscape has created the opportunity for pride, tradition, and storytelling to obscure reality, and for emotions to replace historical fact. In the 21st century, Ralph Adams Cram and John McLaren McBryde's original intention for the buildings to be symbols of Anglo-Saxon anti-modernism has been almost fully obscured by the pure aesthetic capability of architecture to define place. Ralph Adams Cram's hopes have been cast aside and his theory disproved; geometric beauty and aesthetic virtue won

[120] "Dedication of the World War Memorial"

out over “race-memory.” The hearts and minds of those who spend time on Virginia Tech’s campus are filled with pride for what they see as the uniquely beautiful architecture of their school, not pride in its pseudo-historical referential capabilities. Virginia Tech’s campus architecture has become self-referential.

For the vast majority of the tens of thousands of students who reside and learn in Virginia Tech’s Collegiate Gothic buildings, this is a blessing. They are better served by passion for a material and an architectural style that fuels their sense of belonging at Virginia Tech than they would be by the burden of obscure historical origins. Furthermore, for those who would tremble or seethe when confronted with the realities of the ideologies revealed in this thesis, no better antidote and rebuttal exists other than to enjoy the buildings for aesthetics alone, barring Cram’s theory of inextinguishable race-memory from ever becoming a reality. However, it is imperative that the true legacy of the buildings be fully understood and documented, even as it is, and may remain, separate from Virginia Tech’s public image. For the student of history, architecture, philosophy, or local folklore, Virginia Tech’s campus architecture is a resource of undeniable value. It is physical evidence of the 19th century beliefs of Virginia Tech’s leadership and of the school’s Virginian, Southern, and American historical identity.

The construction of Virginia Tech’s buildings and campus was the direct result of both the traditional use of limestone as a building material in the Valley of Virginia, and the belief of Virginia Tech’s leadership in an antimodern Anglo-Saxon past, intertwined with the Confederate Lost Cause, which could inspire the future of the English speaking

people of the American South. This belief aligned with a national dialogue on race, medievalism, and architecture which was popularized by the architect Ralph Adams Cram. Cram's Collegiate Gothic architectural principles aligned with the ideals of Virginia Tech's leadership, and the realities of Blacksburg's architectural history. The concept of masculine paternalism ran as a thread through both the North and South's imaged medieval pasts, as well as the realities of the medieval past of Germans of the Valley who first mined what we call "Hokie Stone." The presence of stone architecture and Gothic architecture in Blacksburg, and their legacies in the Valley of Virginia, created a pathway for the Collegiate Gothic style to be expressed as deeply Virginian and Southern.

In 1960, the World War Two Memorial Chapel, Pylons, and Cenotaph, shown in Figure 48, were built at the head of the Drillfield overlooking Virginia Tech's entire campus. Architect Roy F. Larson's design has, today, taken on a more broad meaning; it now commemorates every Virginia Tech graduate who has died in military service. Each Pylon features a cast stone sculpture representing one characteristic of the Virginia Tech experience: Brotherhood, Honor, Leadership, Sacrifice, Service, Loyalty, Duty and Ut Prosim. Medal of Honor recipients' names are engraved in the cenotaph in the center of the design. The ceremonial structure capped and framed the north end of the Drillfield and effectively completed Virginia Tech's campus layout as it stands today.

In order to build the Memorial and the picturesque "Mall" roadway approaching it, the Old Administration Building, the Rock House, had to be torn down. After it was demolished, stones from the Administration Building, themselves having been part of

the original Rock House, were incorporated into the structure of the new Memorial Chapel.[121] The reuse of the Rock House's stones in Virginia Tech's most intentionally meaningful and symbolic structure points to a conscious Promethean fulfillment of the building's legacy as the original Hokie Stone structure on Virginia Tech's campus. Half a century ago, the meaning and origins of Virginia Tech's buildings and campus were not so obscured as they have become today. The narrative of the Rock House's culturally Virginian architectural heritage, the importance of Christ Episcopal Church to Virginia Tech's early leaders, their belief in race-based Southern medievalism and Confederate memorialization, the alignment of each of these ideas with the nationally-popular antimodern theories of architect Ralph Adams Cram, and the subsequent influence of Cram's work on the architectural identity of Virginia Tech's campus are each insurmountably important elements of Virginia Tech's history as an institution. They are each manifested physically and spiritually in Virginia Teach's Pylons, and the Drillfield and campus they overlook. These realities, though they rightfully no longer represent the popularly understood significance of Virginia Tech's buildings, should not be obscured, but should be documented and made accessible to Virginia Tech's students, faculty, administration, and alumni. The origins of Virginia Tech's campus as it stands today should be recognized as crucial tangible evidence of the school's Virginian, Southern, and American identities.

[121] "Campus Buildings." Virginia Tech History, Physical Plant, Unirel, accessed March 23, 2020. https://history.unirel.vt.edu/physical_plant/campus_buildings.html.

Figures

Figure 1: A typical wall of “Hokie Stone” showing tool marks and variegated color of stone. Stone fades after mining, from dark gray, pink, and tan, to a uniform light gray.

Source: Emyduck. “Hokie Stone.” Flickr. Accessed April 10, 2020. https://www.flickr.com/photos/emyduck/.

Figure 2: Burruss Hall. 1936. Carneal and Johnston Architects. Photo by author.

Figure 3: World War Memorial Hall. 1926. Cram and Ferguson, Architects. Photo by author.

Figure 4: The Drillfield, with Burruss Hall marked (1) and World War Memorial Hall marked (2).

Source: “Visitor Information.” Virginia Tech. Accessed March 20, 2020. https://www.fst.vt.edu/aboutus/visitor_info.html

Figure 5: The 1877 Rock House, Virginia Tech's first "Hokie Stone" structure, shown with Faculty Row behind.

Source: "Stone House" (Administration Building). Virginia Tech Imagebase. Accessed April 10, 2020. https://imagebase.lib.vt.edu/image_viewer.php?q=t15-078.

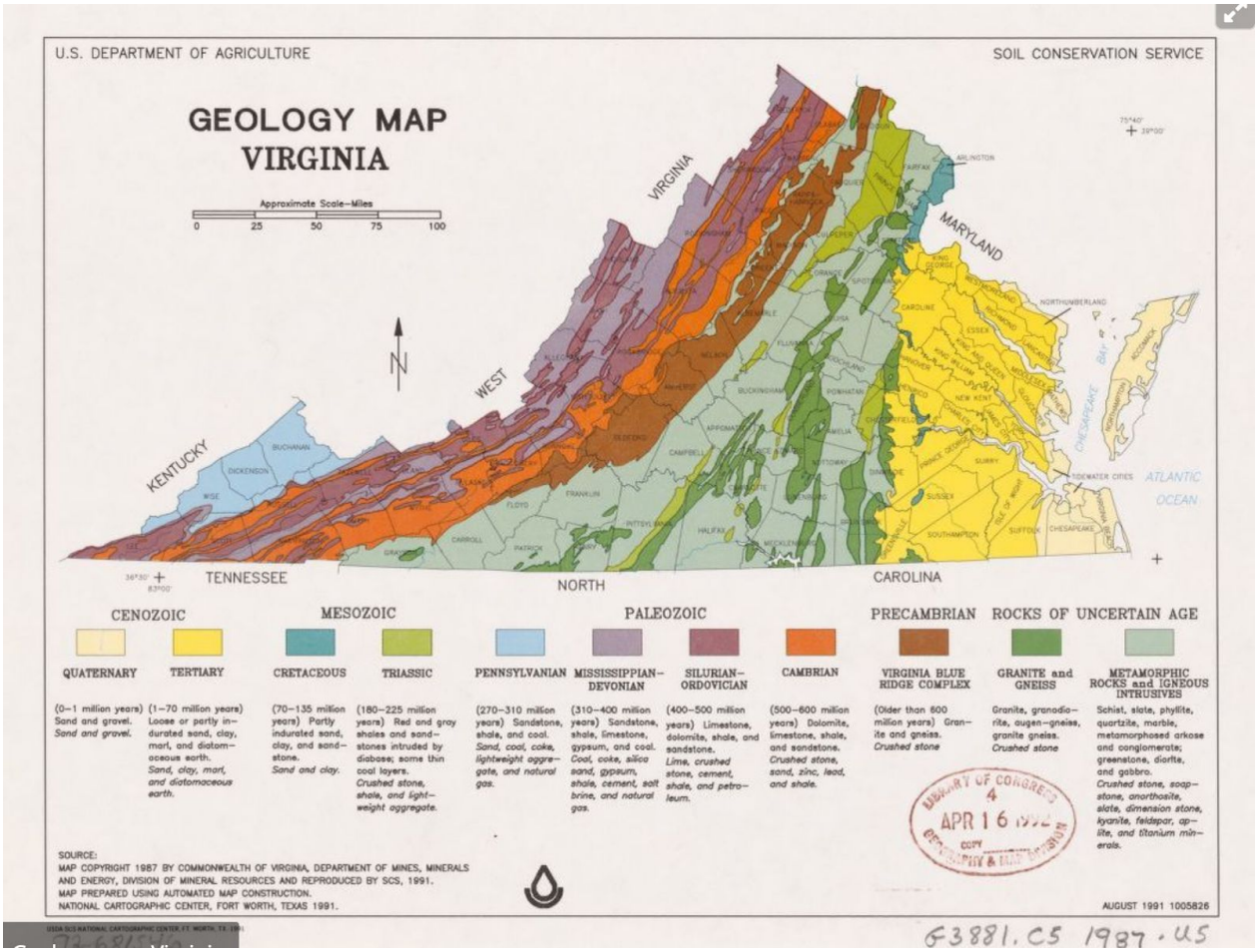

Figure 6: Geological map of Virginia showing the vein of Cambrian and Ordovician limestone in orange and purple following the Valley of Virginia.

Source: “Geology map, Virginia.” Library of Congress. August 1991. Accessed March 5, 2020. https://www.loc.gov/maps/?q=virginia&st=slideshow#slide-40.

Figure 7: Fort Stover, Masanutten, at the north end of the Shenandoah Valley is a typical fine 18th century house built by ethnic Germans in local stone.

Source: “Fort Stover.” 069-0005 Fort Stover. National Register of Historic Places. Accessed April 4, 2020. https://www.dhr.virginia.gov/historic-registers/069-0005/.

Figure 8: Smithfield Plantation in Blacksburg, home of the Preston family.

Source: Abigail Hammack. “Historic Smithfield Plantation. New River Valley VA. March 5, 2018. Accessed March 3, 2020. https://www.newrivervalleyva.org/news/movies-filmed-in-the-nrv/historic-smithfield-plantation/.

Figure 9: - The Howard-Bell-Feather House, the oldest surviving stone structure in Montgomery County.

Source: “Howard Bell Feather House.” 060-0024 Howard-Bell-Feather House. National Register of Historic Places. Accessed March 20, 2020. https://www.dhr.virginia.gov/historic-registers/060-0024/

Figure 10: Liberty Hall Academy Ruins at Washington and Lee, Lexington VA, just north of Blacksburg in the Valley of Virginia.

Source: “Liberty Hall Academy 1782 - 1803.” The Historical Marker Database. Accessed February 12, 2020. https://www.hmdb.org/m.asp?m=32111.

Figure 11: Woodrow Wilson Hall at James Madison University, built from locally mined “bluestone,” with native stone outcropping in foreground.

Source: James Madison University. Facebook Post, January 7, 2019. Accessed March 12, 2020. https://www.facebook.com/jamesmadisonuniversity/photos/welcome-back-to-campus-dukes-hope-youve-had-a-great-winter-break-and-are-ready-t/10156862970375768/.

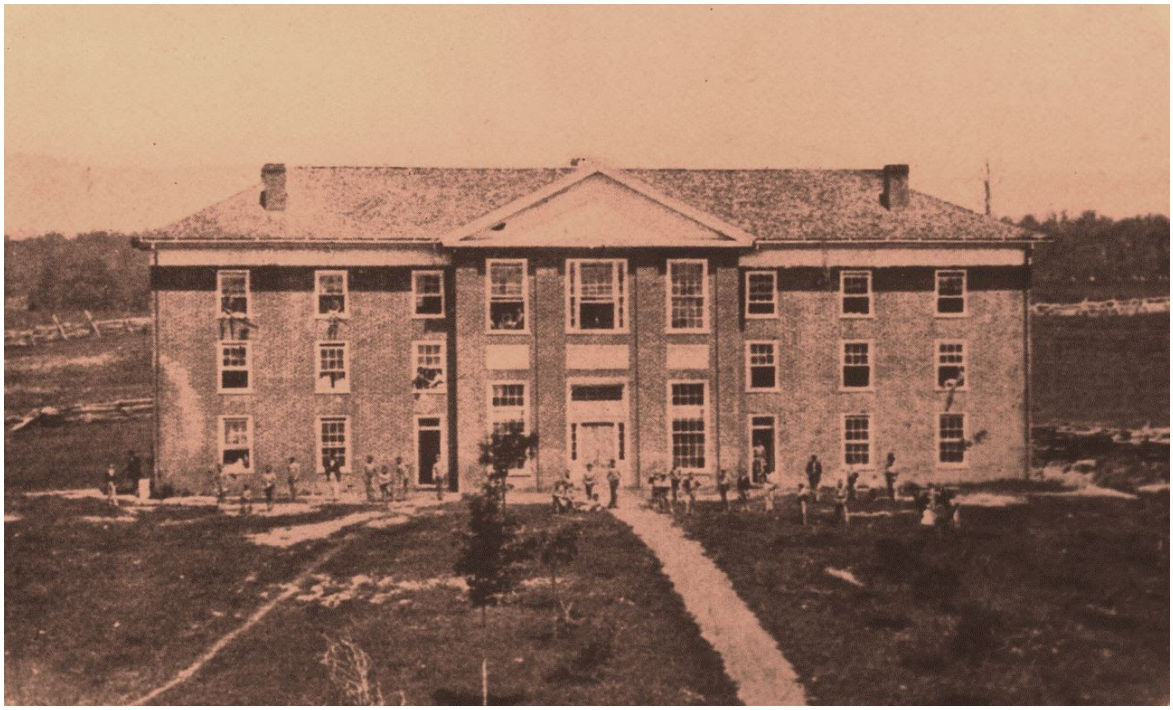

Figure 12: The original Preston and Olin Building, Virginia Tech's first structure.

Source: "Former home of The Preston & Olin Institute, the lone VAMC campus building included classrooms, offices, a chapel, and student lodging." Of Triple Deckers, Hell Row, and Late-Night Dumps. Virginia Tech Special Collections and University Archives. August 21, 2014. https://vtspecialcollections.wordpress.com/2014/08/21/of-triple-deckers-hell-row-and-late-night-dumps/.

Figure 13: Cushing Hall at Hampden-Sydney College.

Source: “Hampden–Sydney College (1895).” *Kaleidoscope*, 1895, Hampden–Sydney, VA: Hampden–Sydney College Retrieved on October 30, 2014. Accessed March 12, 2020. https://en.wikipedia.org/wiki/Cushing_Hall#/media/File:Cushing_Hall_1895.png.

Figure 14: Virginia Tech's First and Second Academic Buildings surrounding Barracks Number One.

Source: "Second Academic Building, Barracks No.1, First Academic Building." Virginia Tech Imagebase. Accessed April 5, 2020. https://imagebase.lib.vt.edu/image_viewer.php?q=t12-004.

Figure 15: Academic Buildings and Barracks as seen from the east. Original Preston and Olin Building identified by mansarded tower and white entablature at far right, with steam laundry, drill hall, and university president's house behind, right to left.

Source: "Pres-distant." VT Special Collections Blog. Accessed April 10, 2020. https://vtspecialcollections.files.wordpress.com/2013/05/presdistant.jpg.

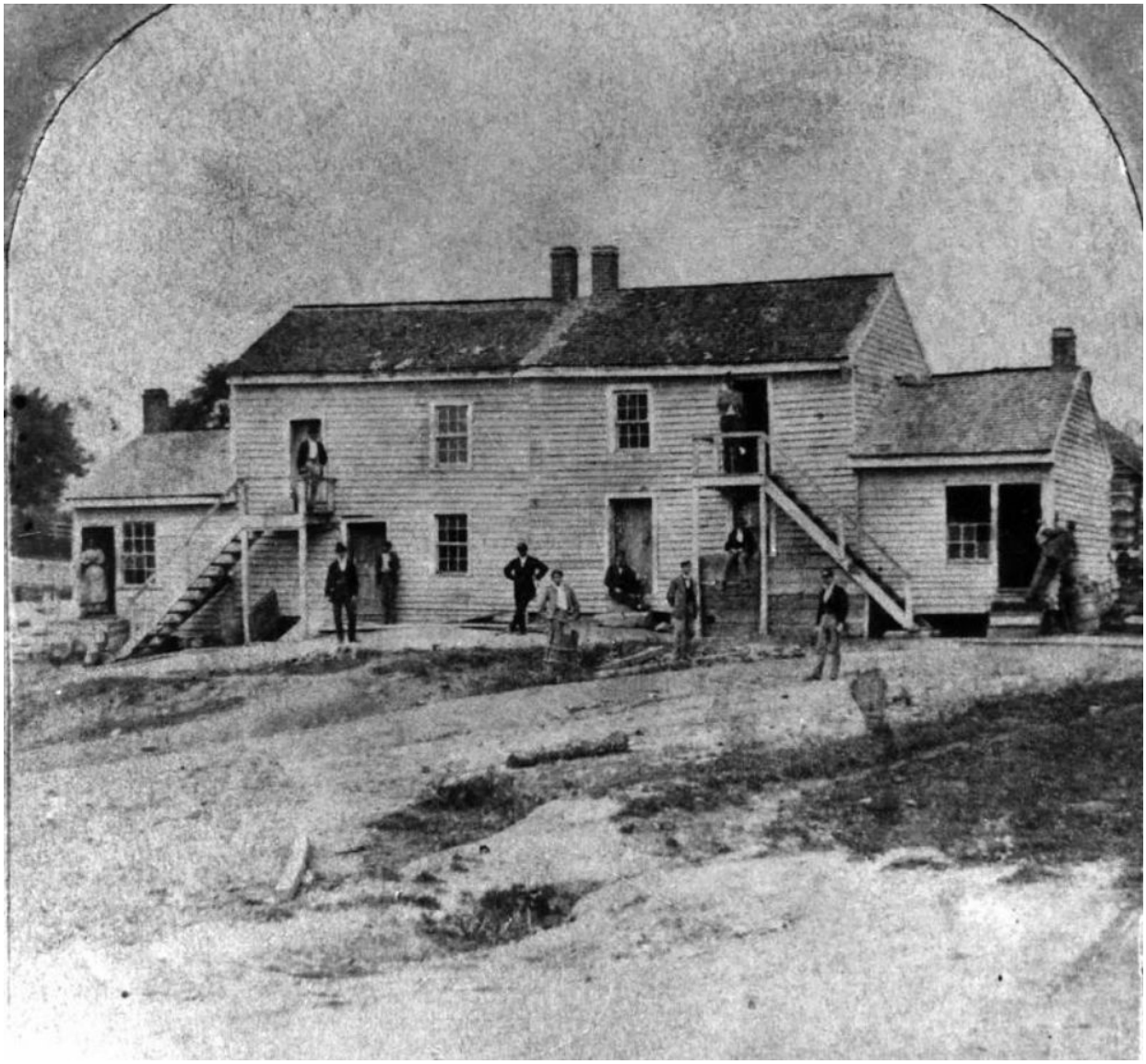

Figure 16: - Mess Hall built at what is now the southern end of the Drillfield.

Source: “Mess Hall.” Virginia Tech Imagebase; in Harris, Nelson. *Virginia Tech*. Charleston, S.C: Arcadia, 2005. 10.

Figure 17: Aerial image of Virginia Tech's campus and Drillfield, looking south-west. Downtown Blacksburg bottom left.

1. Location of the original Preston and Olin Building, which faced Downtown at what was then the westernmost termination of Main Street
2. Upper Quad with Barracks at center, originally surrounded by First and Second Academic Buildings, group facing east
3. Location of the Rock House
4. Location of the Mess Hall shown in Fig.16

Source: "aerial view of much of the campus of the Virginia Tech campus in Blacksburg." Chuck Burton. "Unsanctioned Virginia Tech frat could be removed from house." The Associated Press; in The Virginian-Pilot. August 7, 2019. Accessed March 2, 2020. https://www.pilotonline.com/virginia/article_07391992-b910-11e9-bb38-6fcbfac7943f.html.

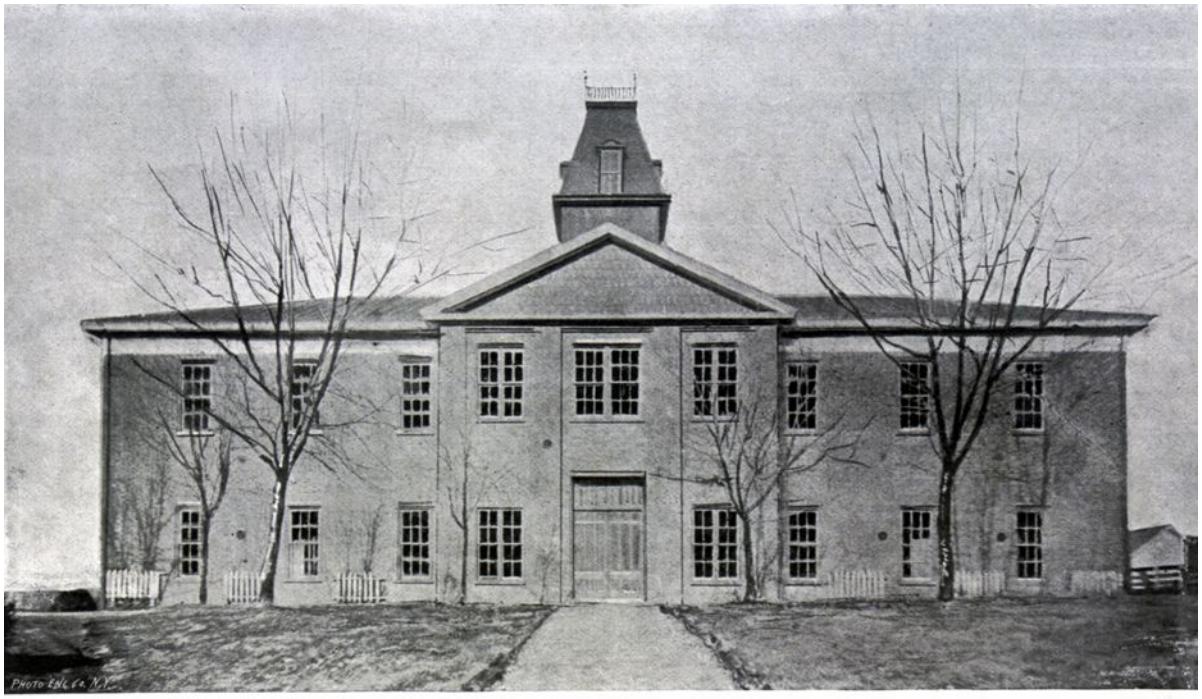

Figure 18: The original Preston and Olin Building with mansarded tower, converted from three stories to two stories for use as a machine shop.

Source: “Machine Shop.” Preston And Olin Building. Unirel. Virginia Tech. Accessed April 3, 2020. https://history.unirel.vt.edu/physical_plant/Preston_and_Olin_Building.html.

Figure 19: Virginia Tech's Barracks Number One (top), the oldest surviving building on the campus, compared to a factory building owned by Charlottesville Woolen Mills, producer of the Cadets' uniforms. Photos by author.

Figure 20: The Rock House, built as a faculty residence, then used as the Administration Building. Virginia Tech's first "Hokie Stone" building.

Source: "The Rock House," in Temple, Harry Downing. The Bugle's Echo : a chronology of cadet life at the Military College at Blacksburg, Virginia, The Virginia Agricultural and Mechanical College and The Virginia Polytechnic Institute. Virginia Tech Corps of Cadets Alumni, 1996.

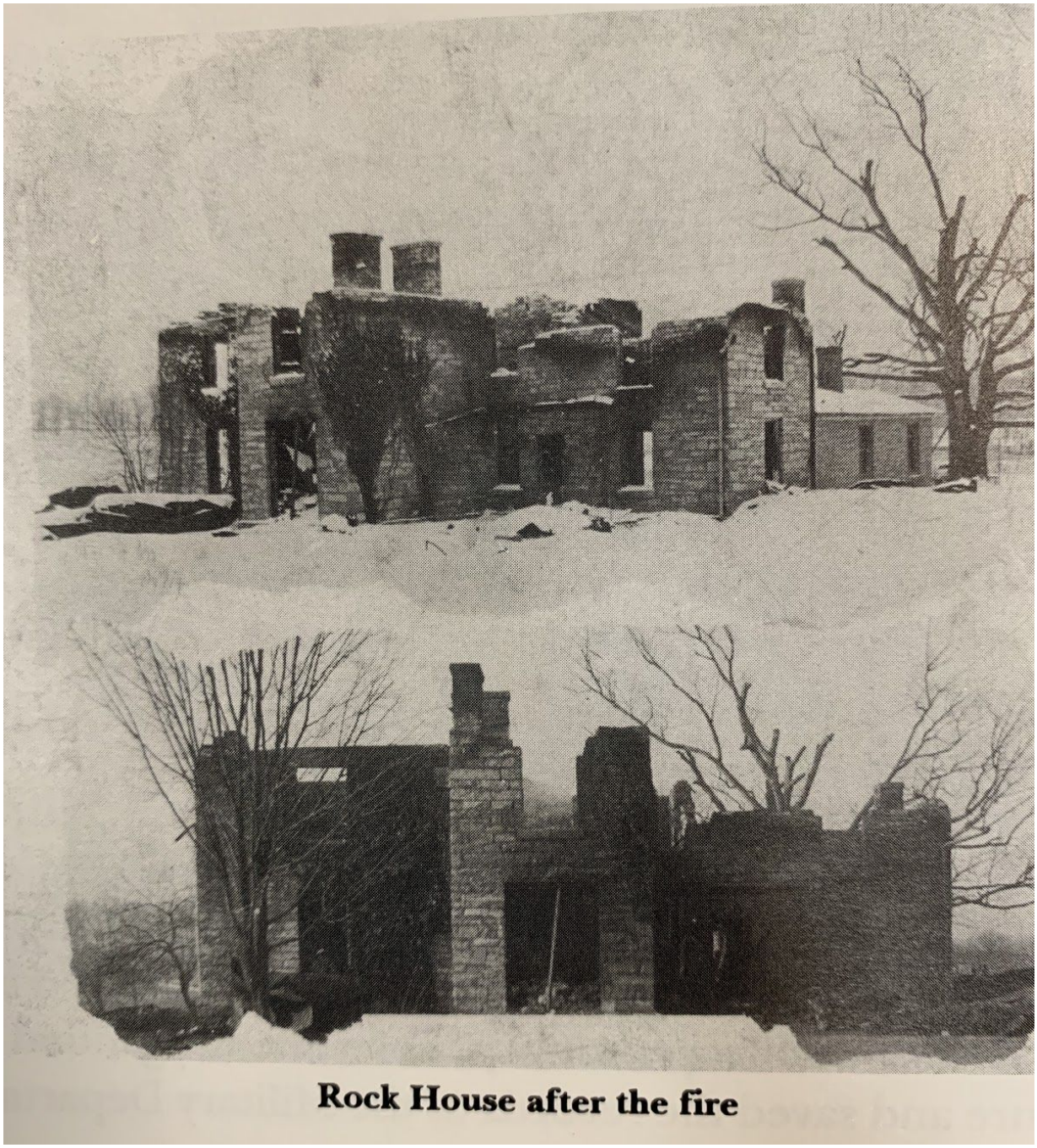

Figure 21: The Rock House after the February 1900 fire that consumed Virginia Tech's founding documents.

Source: "Rock House after the fire," in Temple, Harry Downing. The Bugle's Echo : a chronology of cadet life at the Military College at Blacksburg, Virginia, The Virginia Agricultural and Mechanical College and The Virginia Polytechnic Institute. Virginia Tech Corps of Cadets Alumni, 1996. 642.

Figure 22: The Rock House, rebuilt into an improved Administration Building after the fire.

Source: “Back view of stone house.” Virginia Tech Imagebase. Accessed April 3, 2020. https://imagebase.lib.vt.edu/image_viewer.php?q=VT0603271052.

Figure 23: Virginia Tech's first Chapel, also known as the Auditorium. Later used as the library. Note crenelations, only found on other stone buildings on the campus: the YMCA and the rebuilt Rock House/Administration Building.

Source: "Chapel, ca. 1890", photograph, Harry Downing Temple Collection, (Ms88-039), Special Collections, University Libraries, Virginia Tech.

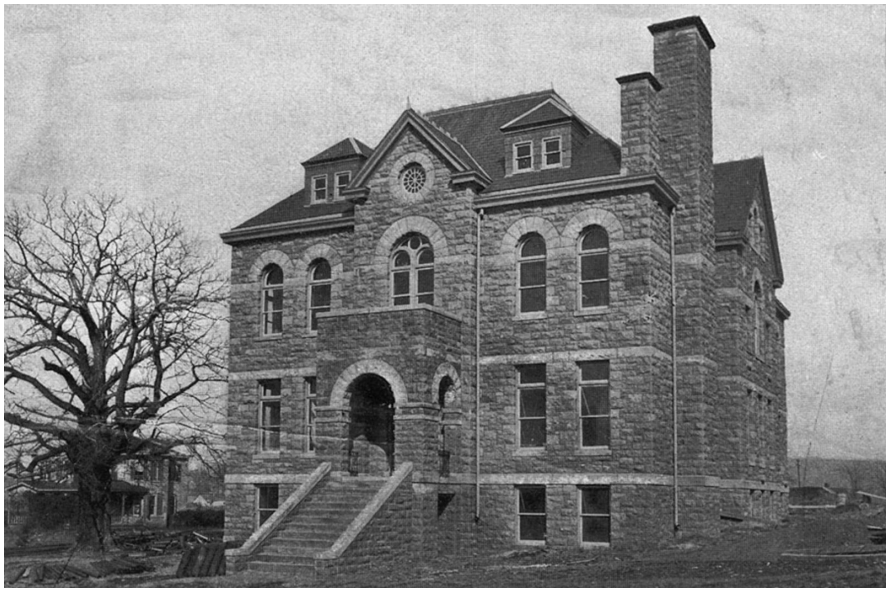

Figure 24: Virginia Tech's YMCA Building, with copper crenelations at roof peaks.

Source: "YMCA Building." Campus Buildings Gallery. Unirel. Virginia Tech. May 27, 2010. Accessed March 5, 2020. https://www.unirel.vt.edu/history/faculty_staff/gallery/buildings_gallery.html.

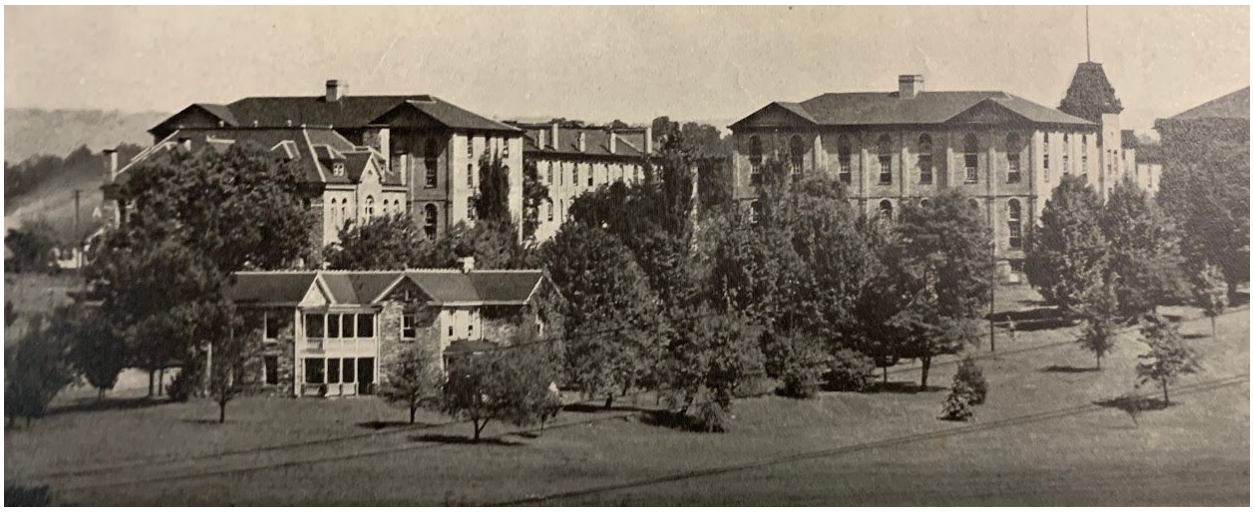

Figure 25: The Administration Building (rebuilt Rock House) in foreground, with copper crenelations at roof peaks matching the YMCA directly behind.

Source: "The Campus, in The Bugle, 1907, Virginia Tech Special Collections, Blacksburg, Virginia.

Figure 26: Blacksburg's Christ Episcopal Church

Source: "Our History." Blacksburg Christ Episcopal Church. https://www.christchurchblacksburg.org/Our-History.htm.

Figure 27: Christ Episcopal Church today, with 1936 tower addition designed by Ralph Adams Cram. Photo by author.

Figure 28: Virginia Tech's fifth president, John McLaren McBryde, shown in late retirement years.

Source: "President McBryde with Dogs, c. 1920," McBryde Family Papers, (Ms2013-024), Special Collections, University Libraries, Virginia Tech.

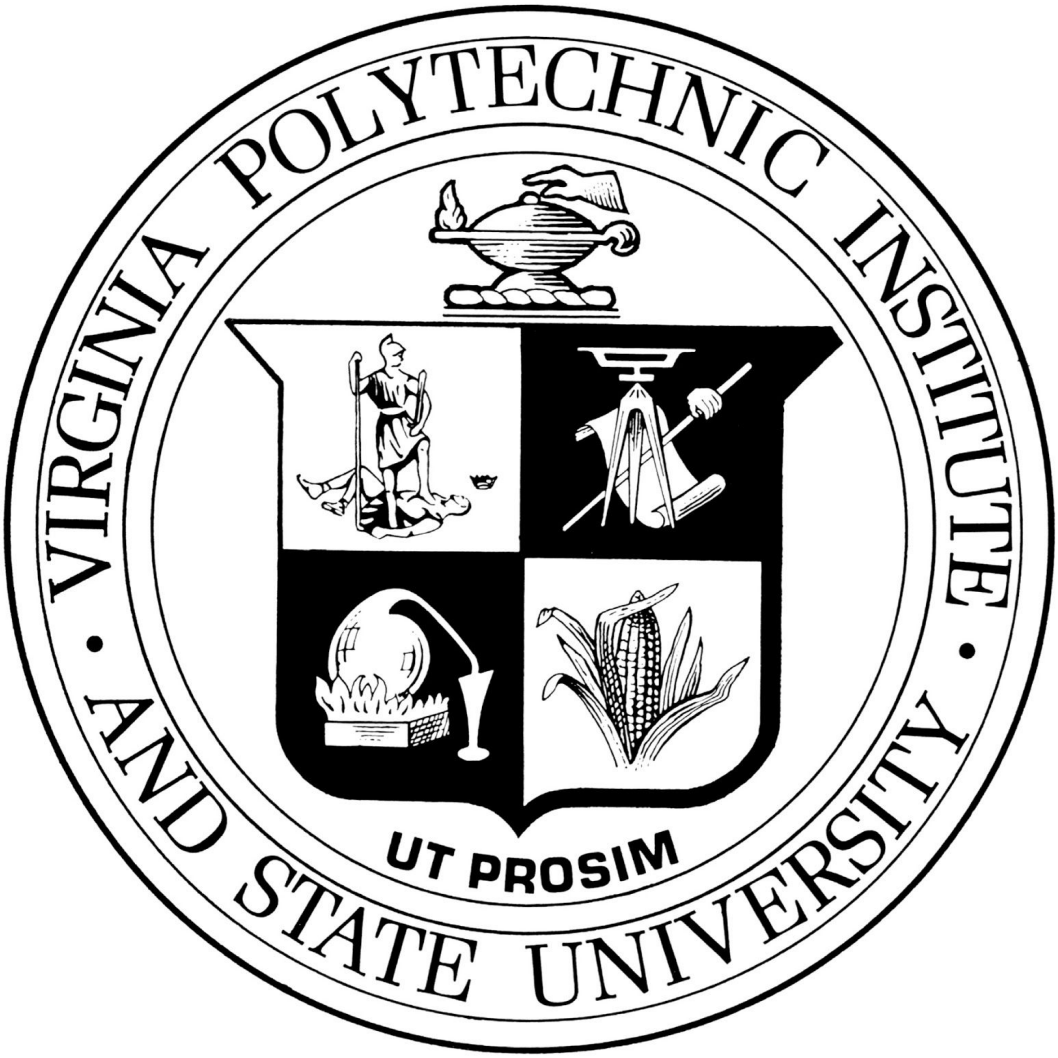

Figure 29: Virginia Tech crest, seal, and motto (That I May Serve), as designed by president McBryde and his son.

Source: “Motto and Seal,” Traditions. Unirel. Virginia Tech. Accessed March 3, 2020. https://history.unirel.vt.edu/traditions/motto_seal.html.

Figure 30: The original house at Mount St. Angelo, on what became the campus of Sweet Briar College. McBryde wanted to add wings to each side to “relieve the disproportion of the tower.”

Source: “The Original Mt. San Angelo,” Tusculum Newsletter Volume 4, Issue 2 (April 2013),“Research into Sweet Briar History”. Accessed April 10, 2020. http://tusculum.sbc.edu/newsletter14.shtml.

Figure 31: The architect Ralph Adams Cram, pictured a few years after he met McBryde.

Source: “Cram - Theodore C. Marceau, Ralph Adams Cram,” July 3, 1911. United States Library of Congress, Prints and Photgraphs Division, (cph.3b34921), in “Ralph Adams Cram,” Wikipedia Contributors, Wikipedia, The Free Encyclopedia, accessed April 26, 2018, https://en.wikipedia.org/wiki/Ralph_Adams_Cram#/media/File:Ralph_A._Cram_cph.3b34921.jpg .

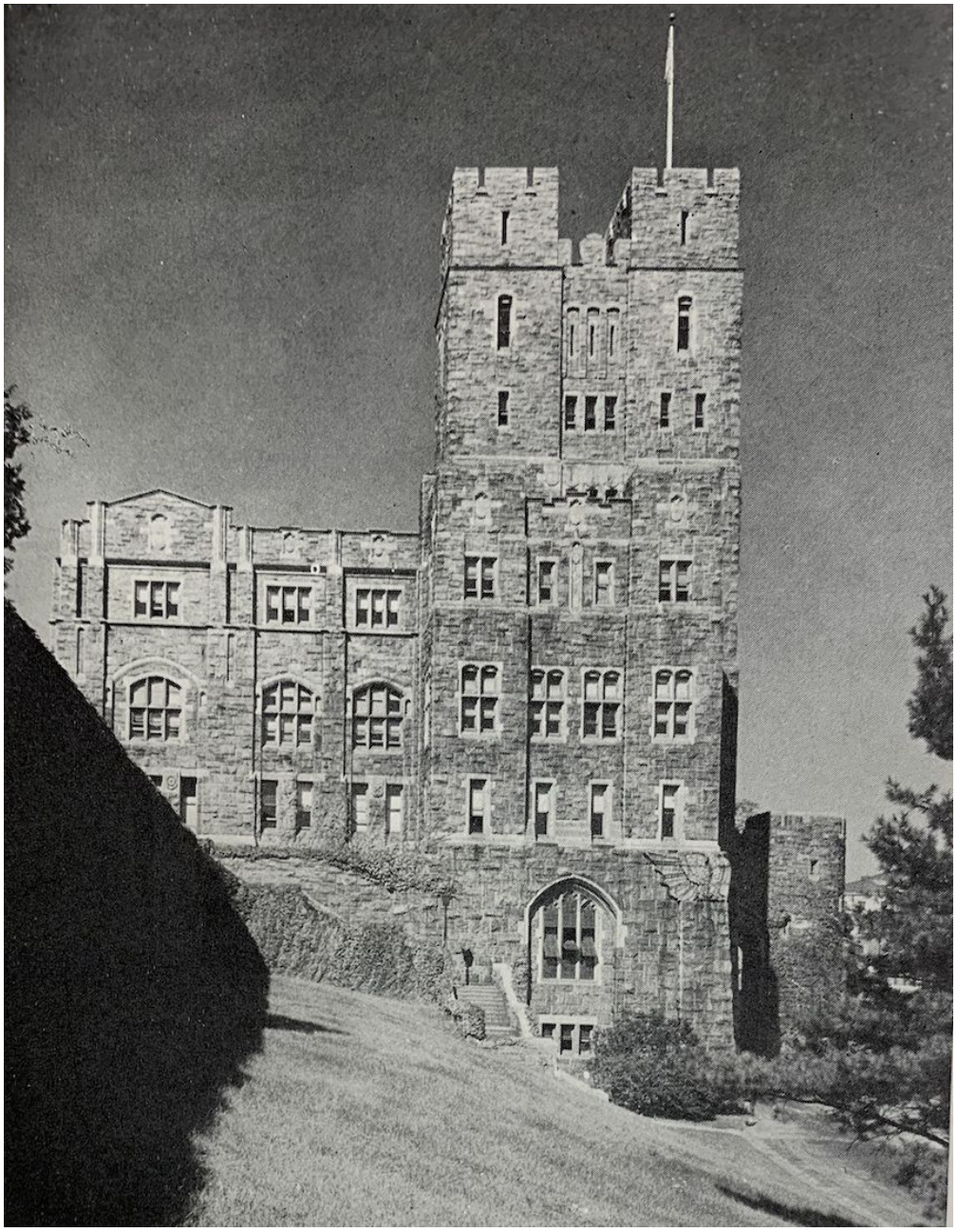

Figure 32: Post Headquarters, United States Military Academy at West Point, designed by Ralph Adams Cram.

Source: “West Point Post Headquarters,” in Douglas Shand Tucci, *Ralph Adams Cram, American Medievalist*, (The Stinehour Press for the Boston Public Library, 1975), 9.

Figure 33: Chapel at Princeton University, designed by Ralph Adams Cram.

Source: Mark Klinchin, “Princeton Chapel,” Flickr. Accessed March 3, 2020. https://www.flickr.com/photos/mklinchin/32212017798.

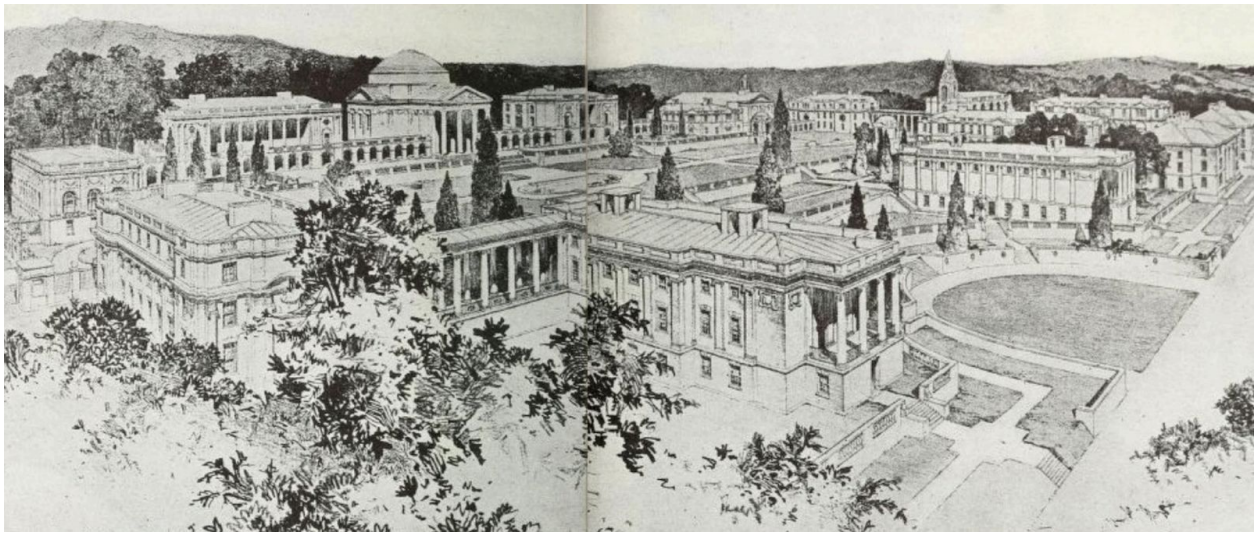

Figure 34: Ralph Adams Cram's master plan for Sweet Briar College, considered among his most successful works.

Source: Cram, Ralph Adams, Master Plan, 1903, in VonBriesen, Martha, and Dorothy S. Vickery, "Sweet Briar College: Seven Decades: 1901-1971". Richmond, Virginia: Whittet and Shepperson, 1972. Accessed April 3, 2020. https://archive.org/stream/sweetbriarcolleg00vonb#page/2/mode/2up.

Figure 35: Ralph Adams Cram's buildings at the University of Richmond.

Source: "University of Richmond, Richmond, VA." Boston Public Library Arts Department. The Tichnor Brothers Collections, in Digital Commonwealth. Accessed April 5, 2020. https://www.digitalcommonwealth.org/search/commonwealth:9k41zj226.

Figure 36: Ryland Hall, the centerpiece to Cram's design for the University of Richmond. Source:

Source: Edith Schermerhorn. "Ryland Hall. " Campus Prints. Accessed March 22, 2020. https://campusprints.com/product/ur-ryland-hall-giclee/.

Figure 37: Virginia Tech cadets before 1890 wearing uniforms inspired by those of the Confederacy.

Source: Harry Downing Temple and Floyd Richard Vranian, *Donning the Blue and Gray: A Pictorial History of the Cadet Uniforms of the Virginia Agricultural and Mechanical College and the Virginia Polytechnic Institute*, (Richmond, VA: William Byrd Press, 1992), 9.

Figure 38: Dormitories designed by Cope and Stewardson at the University of Pennsylvania.

Source: “Junior Balcony, with McClelland Hall beneath it.” Quadrangle Dormitories (University of Pennsylvania). Wikiwand. Accessed April 3, 2020. https://www.wikiwand.com/en/Quadrangle_Dormitories_(University_of_Pennsylvania).

Figure 39: All Saints' Chapel at Sewanee: The University of the South, designed by Ralph Adams Cram.

Source: All Saints' Chapel Sewanee. Facebook Post. August 27, 2012, Accessed April 4, 2020. https://www.facebook.com/allsaintschapelsewanee/photos/a.440131259361574/440131269361573/?type=3&theater.

Figure 40: Paul Barringer, sixth president of Virginia Tech

Source: Cox, Clara B and Lawrence G. Hincker. *Images and Reflections: Virginia Tech 1872-1997.* Virginia Polytechnic Institutue and State University in conjunction with Harmony House Publishers, Goshen, Kentucky, 1997. 37.

Figure 41: Joseph Dupuy Eggleston, seventh president of Virginia Tech

Source: “Joseph D. Eggleston (1867–1953)” Encyclopedia Virginia. Ronald L. Hienemann. Accessed March 20, 2020. https://www.encyclopediavirginia.org/Eggleston_Joseph_Dupuy_Jr_1867-1953.

Figure 42: The McBryde Building of Mechanic Arts. The first building designed by Carneal and Johnston, and the origin of Virginia Tech's architectural style as we see it today.

Source: "Old McBryde Hall, ca. 1920," Photograph, Arthur B. Massey Papers (MS1962-002), Special Collections, University Libraries, Virginia Tech, accessed April 25, 2018, https://vtspecialcollections.wordpress.com/2015/04/09/the-legacies-of-a-b-massey/.

Figure 43 - Panels from bay window, saved when the original McBryde Building was demolished, and installed in the lobby of the replacement McBryde Hall, which is built in a brutal modernist style. Photos by author.

Figure 44: Sandy Hall, constructed soon after the McBryde Building by Carneal and Johnston. Photo by author.

Figure 45: Bovine Gargoyle on Saunders Hall, originally the Dairy Husbandry Building. Photo by author.

Figure 46: Tower at Eggleston dormitories, showing the fully evolved late version of Carneal and Johnston's Gothic style for Virginia Tech. Photo by author.

Figure 47: Hillcrest Hall, Virginia Tech's first women's dormitory, built in brick reflecting the masculine and paternal perception of stone.

Source: Virginia Tech Honors College. Facebook Post. June 22, 2018. Accessed April 10, 2020.https://www.facebook.com/VTHonorsCollege/photos/a.10151382947000360/10160646314375360/?type=3&theater.

Figure 48: The Pylons and Cenotaph above the World War Two Memorial Chapel, overlooking the Drillfield. Built with stones from the Rock House, Virginia Tech's first "Hokie Stone" structure.

Photo taken by the author on the last day of his freshman year at Virginia Tech.

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