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AN EXAMINATION OF CHANGES IN HERITAGE VALUE OF THE RUTGERS GEOLOGY
MUSEUM

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ABSTRACT OF THE THESIS

An Examination of Changes in Heritage Value of the Rutgers Geology Museum

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This thesis examines the heritage value of the Rutgers Geology Museum and the ways in which this value has changed over time by focusing on three distinct historical moments. This is not an historical narrative but rather a critical examination of how people have ascribed value to the Rutgers Geology Museum at specific moments in the past and continue to do so. This analysis provides insight into how language functioned to structure the social institutions that influenced the Rutgers Geology Museum throughout its history and provides evidence of the articulation of heritage value of the Rutgers Geology Museum over time, revealing the people and processes involved in the formation of the heritage value of the site. Furthermore, this analysis reveals how value was applied, providing a comprehensive picture of the heritage value of the Rutgers Geology Museum at three points in time, allowing changes in heritage value to be observed and analyzed on a continuum.

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Chapter 1 – Introduction

In 1862 the United States Congress passed the Morrill Land-Grant Act (the Morrill Act), which offered to each state 30,000 acres of federal land for each senator and representative in Congress; these lands were to be sold and the proceeds of the sale appropriated 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.”¹ New Jersey acceded to the terms of the Act in 1863 and through the newly-organized Rutgers Scientific School, the federal government designated Rutgers College the land-grant college of New Jersey in 1864. The Rutgers Geology Museum was the fourth building constructed for the college and was one of the early material improvements made by the college in order to fulfill the mandate of the Act.² The building still stands on its original site and was recognized in 1973 for its historic value when the six buildings that make up the Queen’s Campus district were listed on the US National Register of Historic Places.³ Currently, the heritage value of the site is under reconsideration, because a small group of stakeholders is considering applying for US National Historic Landmark status for Geological Hall.

¹ “Our Documents - Transcript of Morrill Act (1862),” accessed April 9, 2018, <https://www.ourdocuments.gov/doc.php?flash=true&doc=33&page=transcript>.

² Lauren Adamo et al., “The Rutgers Geology Museum: America’s First Geology Museum and the Past 200 Years of Geoscience Education,” in *Museums at the Forefront of the History and Philosophy of Geology: History Made, History in the Making* (Geological Society of America, 2018), 1.

³ “National Register of Historic Places Inventory Nomination Form, Queen’s Campus, Rutgers University” (US Department of the Interior National Park Service, 1973), <https://npgallery.nps.gov/AssetDetail/NRIS/73001113>.

This thesis will examine the heritage value of the Rutgers Geology Museum⁴ and the ways in which this value has changed over time by focusing on three distinct historical moments. This is not an historical narrative but rather a critical examination of how people have ascribed value to the Rutgers Geology Museum at specific moments in the past and continue to do so. Since these stakeholders have extolled the historic value of this architectural feature at the heart of the original campus of Rutgers to justify its continuous preservation at different times, I will examine the ways in which these values have been articulated at significant points in the site's history while noting any changes in values. This will demonstrate how built heritage can experience assessments of significance as it is incorporated into the heritage histories⁵ of the university. Such a process reveals the values that stakeholders find important during various time periods, supporting the assertion that value is a socially ascribed process.

Geological Hall is one example of campus architecture that represents the physical remnants of university history and heritage that remain at Rutgers University. Built at a time when higher education in the US was transitioning from a classics-dominated curriculum to one that eventually made sciences and mechanical arts an equal focus,⁶ the Rutgers Geology Museum represents the physical manifestation of an investment in agricultural and mechanical arts required by the Morrill Act. Rutgers needed to make some physical improvements to its campus without using federal funds, because the Act

⁴ The terms Rutgers Geology Museum, Geology Hall and Geological Hall are used interchangeably in this thesis and its sources to refer to the building and entity within that comprise the subject of this analysis.

⁵ Heritage histories refer to the tangible places and things and the intangible activities and memories that comprise Rutgers' history.

⁶ Richard Patrick McCormick, *Rutgers: A Bicentennial History*, (Rutgers University Press, 1966), 83.

forbade the use of federal money for capital construction projects. In 1870, after a year-long centennial fundraising campaign that realized over \$121,000, the university decided that half of these funds would be designated to build a geological hall (McCormick 1966, Adamo 2018). The disposition of a significant portion of the fund in this way demonstrated the commitment of the college to support the sciences at Rutgers.⁷ “The construction and opening of a permanent home for the Rutgers Geology Museum represented the role that geology played in this period as one of the most preeminent and popular sciences.”⁸ By including science, engineering and agriculture in its curriculum and providing buildings to house these endeavors, Rutgers supported “practical vocations” that were “fundamental to national life and prosperity,”⁹ embodying the philosophy that science should serve humankind.¹⁰ This museum therefore represents the historic shifts that took place within the field of higher education at that time, as the undergraduate curriculum expanded to embrace scientific subjects.

Designed in 1871 by United States architect Henry Janeway Hardenbergh, the Rutgers Geology Museum was the first museum in America dedicated exclusively to geology.¹¹ Geological Hall was purpose-built to provide instructional and laboratory space for scientific studies at Rutgers as well as to display and make the mineral and fossil

⁷ Jean Wilson Sidar, *George Hammell Cook : A Life in Agriculture and Geology* / (Rutgers University Press, 1976), 155.

⁸ Adamo et al., “The Rutgers Geology Museum: America’s First Geology Museum and the Past 200 Years of Geoscience Education.”, 8.

⁹ William H. S. Demarest, *A History of Rutgers College, 1766-1924* (New Brunswick, N.J.: Rutgers College, 1924), 406.

¹⁰ Sidar, *George Hammell Cook*, 85.

¹¹ Adamo et al., “The Rutgers Geology Museum: America’s First Geology Museum and the Past 200 Years of Geoscience Education.”, 1.

collections compiled by Rutgers professors more accessible to the public. The building remains on its original site among the six buildings that formed the early campus of the university that was founded in 1766. The exterior of the building and the museum have remained relatively unchanged since construction. The ground floor was originally an armory. Although surviving records do not offer many details about the first floor, we know that by 1928 the interior spaces in the basement and first floors were exclusively the laboratory and office space of the Geology Department.¹²

Although the museum has been in continuous operation since 1872, as Rutgers science departments moved campus locations in the latter half of the twentieth century, the building ceased to be a place of research. Adamo et al. state, “Even though active research is no longer conducted at the Rutgers Geology Museum, it still provides value to the research community as a means to document the past, a repository of reference material, and as a center for disseminating current research to the public through hands-on education.”¹³ The university expanded, within the built environment and academically, yet the Rutgers Geology Museum remained underfunded, and at times neglected, but for the attention of the small group of stakeholders mentioned earlier. Rutgers Geological Hall is a rectangular building constructed of irregular blocks of roughly hewn brown sandstone. It has three stories: the basement, which currently contains administrative offices; the first floor, which originally contained facilities for the physical

¹² Albert S. Wilkerson, *An Abbreviated History of Geology at Rutgers, the State University, from 1830 to 1963* / (Rutgers University, 1963), 17.

¹³ Adamo et al., “The Rutgers Geology Museum: America’s First Geology Museum and the Past 200 Years of Geoscience Education.”, 19.

sciences, at present houses administrative offices; and a large double-height museum on the second floor that currently remains very close to its original form. With the support of the Rutgers Alumni Association, the Rutgers Geology Museum was listed with six other buildings that comprise Rutgers University's historic Queens Campus on the New Jersey Register of Historic Places and the National Register of Historic Places in 1973.¹⁴ As noted, currently stakeholders¹⁵ seek to nominate the building to the list of US National Historic Landmarks, and work to this end has been ongoing throughout the research for this thesis. Raising a property to the level of US National Historic Landmark (NHL) is a lengthy and complicated process through which researchers must prove the national significance of the site. Hence, NHL acceptance and the concomitant national recognition will significantly enhance the heritage value of the site projected to the public. If successful, the Rutgers Geology Museum would ascend from a property listed with over 90,000 properties on the US Register of Historic Places to one of almost 2,600 properties that are National Historic Landmarks.¹⁶ However, the contemporary setting of this site is complicated, and the NHL project has revealed institutional conflict in regard to acquiring permission and support from powerful stakeholders.

The university has changed very little about the physical structure. However, the site's heritage status changed when it transitioned from a purpose-built educational

¹⁴ "National Register of Historic Places Inventory Nomination Form, Queen's Campus, Rutgers University."

¹⁵ The stakeholders and community related to the Rutgers Geology Museum have evolved over time but generally include Rutgers faculty, staff, students, administration, alumni and the wider New Brunswick population.

¹⁶ "National Historic Landmarks Program," accessed September 19, 2018, <https://www.nps.gov/orgs/1582/index.htm>.

space to a National Register of Historic Places property and then to the present-day movement toward the NHL nomination. All of these stages contribute to the heritage history of the site and demonstrate that it is not static, but rather a dynamic site. Indeed, this trajectory presents the opportunity to examine how the heritage value of one site can be articulated repeatedly and yet differently at distinct points in time while the physical attributes of the site remain unchanged. Here we have a laboratory of heritage within which to examine one site over time. How is the value of one site be articulated and understood at multiple points in time? How did the perception of the site among stakeholders change from a standard building that housed academic endeavors to heritage? What factors and people contributed to this transition? In order to answer these questions, I examined the articulation of heritage value at three specific points in time that mark seminal moments in the museum's heritage history: the inception of the museum in 1872, the turning point of the acceptance of the museum to the National Register of Historic Places in 1973, and the present-day NHL Application process. As is the case with many buildings and heritage sites, examining events and broad trends at significant times reveal that the heritage value attributed to a site is rooted in the social and cultural trends happening at the time. For example, the mid-nineteenth century changes in US scholarship that resulted in the inclusion of agriculture and the mechanic arts within US higher education shaped actions directly associated with the inception of the Rutgers Geology Museum. Additionally, congressional legislation on Historic Preservation in the United States in the mid twentieth century articulated an official national view of historic preservation that spurred a change in heritage value for the

Rutgers Geology Museum. Today, changes to the scale of heritage value via the NHL nomination proposed by stakeholders of the Rutgers Geology Museum reflect reactions to significant growth and change within the Rutgers community.

The use and significance ascribed to the Rutgers Geology Museum site has changed throughout its history as it became an object of heritage preservation concern. Analysis of documents and texts directly related to these changes and trends connects events and actions within the Rutgers Geology Museum to not only the wider community and nation, but also the people who wrote them.

Chapter 2 - Review of Literature

Two areas of study within heritage scholarship form the basis for the analysis in this thesis: value and its consideration within cultural heritage, and campus historic preservation. The literature reviewed here focuses on these two areas of research, and together inform the analysis of the change in heritage value of the Rutgers Geology Museum. The importance and meaning that stakeholders attach to the museum constitutes its value, and this value forms an analytical construct to determine the heritage significance of the site. Value used as an analytical construct then becomes a tool that can be used to make heritage preservation determinations and can be used to evaluate the significance of the Rutgers Geology Museum at different points in its history. Heritage value offers insight into stakeholder beliefs as such beliefs (and perhaps biases) are, in part, rooted in a relationship with the past. The constituent parts that make up heritage value determine the conditions that allow a heritage object, site or practice to attain or retain value.

How Heritage Value was Interpreted Historically

History, heritage and value were the focus of Alois Reigl's 1906 discussion on the Cult of Monuments. Reigl initiated this early discussion of value as a precursor to heritage legislation that he would subsequently write as Conservator General of the Austrian State, distinguishing between different types of value based on categories such as age, historic, use, and commemorative values. Reigl was clear on where he believed that value originated: "We modern viewers, rather than the works themselves by virtue of their

original purpose, assign meaning and significance to a monument.”¹⁷ While Reigl contended that value is not inherent to an object or site but is socially ascribed, Lamprakos notes in her analysis of Reigl that in employing age value Reigl codifies the notion of material authenticity as a fundamental principle of the preservation law he would later author.¹⁸ “Riegl’s whole art historical project was founded on the realization that both the production and reception of art are guided by changing, and ultimately subjective, values and sensibilities. But his law eliminated the role of subjective judgement – legislating the protection of structures solely on the basis of age.”¹⁹ Lamprakos recognizes this contradiction but maintains that Reigl did not intend for his categories to be applied indiscriminately. Rather, he intended heritage to be evaluated using multiple values that are based on changing relationships between object and viewer.

Reigl’s discussion of value is a representative example of what would later become a series of expert-led proclamations and charters that made binding statements and pronouncements of authority that defined the nature of heritage as inherent, monumental and universal.²⁰ For example, the Venice Charter²¹ bound the value of a monument to the physical fabric and place, making value inseparable from the material

¹⁷ Alois Reigl, “The Modern Cult of Monuments: Its Essence and Its Development,” in *Historical and Philosophical Issues in the Conservation of Cultural Heritage* (Getty Publications, 1996), 72.

¹⁸ Michele Lamprakos, “Riegl’s ‘Modern Cult of Monuments’ and The Problem of Value,” *Change Over Time* 4, no. 2 (fall 2014), 425.

¹⁹ Lamprakos, 431.

²⁰ Laurajane Smith, *Uses of Heritage* (Abington and New York: Routledge, 2006), 89.

²¹ International Council of Monuments and Sites, “International Charter for the Conservation and Restoration of Monuments and Sites (THE VENICE CHARTER 1964),” 1964, https://www.icomos.org/charters/venice_e.pdf.

heritage and thus inherent to the site.²² The National Historic Preservation Act of 1966 (NHPA), the central piece of legislation that shaped heritage management and listing in the United States, continues the material-based preservation of the Venice Charter, defining heritage as, “material, and the value of heritage as inherent in a ‘district, site, building, structure’ or ‘object.’”²³ Through these and other examples of policy and expert-led proclamations, the value of heritage became intrinsic to tangible places and objects.

Heritage Value in the United States

While these examples of charters and legislation that specifically include or address value have shaped historic preservation, heritage policy, and action on different scales worldwide, it is important to consider how these documents are crafted and the words they use. Often the language and discourse of local heritage is borrowed from national and international legislation and policy, replicating and perpetuating narrow and specific views of heritage that favor the expert and monumental. This dialog between documents, or intertextuality, constructs meaning, relations and produces thematic familiarity and continuity without explicitly stating replication.²⁴ For example, New Jersey modeled the New Jersey Register of Historic Places Act of 1970, after the NHPA, and adopted the same eligibility criteria and designation process as the National criteria. Thus, a New Jersey property accepted to the National Register of Historic Places is automatically listed on the NJ Register of Historic Places by virtue of the identical criteria

²² International Council of Monuments and Sites.

²³ Rodney Harrison ed., *Understanding the Politics of Heritage* (Manchester University Press, 2010), 33.

²⁴ Emma Waterton, Laurajane Smith, and Gary Campbell, “The Utility of Discourse Analysis to Heritage Studies: The Burra Charter an...: Articles+,” *International Journal of Heritage Studies* 12, no. 4 (2006): 344.

and applications. Therefore, New Jersey articulates heritage by replicating the national model, with little consideration for differences that may exist between them. The process through which heritage became what it is today was and continues to be discursive, built through a language that communicates power and value in the lists and laws mentioned earlier.

Changes in the Concept of Value

In the 1980s, the concept of value began to change as scholars examined the basis of the criteria for heritage and questioned how value was assigned. These scholars asserted value is not inherent within the tangible fabric of an object or place but ascribed through social processes and is therefore fluid and changing. William Lipe maintains that value is not inherent but learned by humans and is therefore dependent on, “particular cultural, intellectual, historical and psychological frames of reference held by individuals.”²⁵ Consequently, value is determined within dynamic contexts and values overall are fluid. The idea that heritage value can change was also explored by D.C. Harvey, who stated that, “heritage is never inert, people engage with it, re-work it, appropriate it and contest it.”²⁶ Harvey contends that heritage has always been with us and has always been produced in the present by people according to their contemporary concerns and experiences, and so the present system of heritage management represents the latest phase of a much longer and ever-changing trajectory. During 1980s and 1990s,

²⁵ William Lipe, “Value and Meaning in Cultural Resources,” in *Approaches to the Archaeological Heritage* (Cambridge University Press, 1984), 2.

²⁶ David C. Harvey, “Heritage Pasts and Heritage Presents: Temporality, Meaning and the Scope of Heritage Studies,” *International Journal of Heritage Studies* 7, no. 4 (January 2001): 334, <https://doi.org/10.1080/13581650120105534>.

scholars further challenged the concept of intrinsic and unchanging heritage value. This resulted in a major shift at the beginning of the twenty-first century in the role of value in heritage from heritage management with an absolute set of standards and determination of value and significance to a relative approach to heritage that acknowledged and incorporated multiple values and representations of heritage.²⁷

The Critical Turn

Based on this shift, the study of heritage value and how that value is ascribed then turned to evaluate *how* heritage value is manifested – the processes and the people involved. Values Based Management and Assessment is one method that employs the values attributed to heritage as tools to organize research and actions in heritage. Marta de la Torre writes that in employing a Values Based Management model there is no blanket approach that will fit all situations and that heritage value must be evaluated case-by-case. Randall Mason states that values can change over time, are shaped by contextual factors and can at times conflict, resulting in a need for a wide variety of methodologies and tools for assessing values. These scholars propose a toolbox approach in which typologies are created to establish a framework that breaks down heritage significance into specific values.²⁸ They contend that using an agreed upon classification of heritage values would be an effective way to establish a common language among stakeholders to clearly express and discuss value.²⁹

²⁷ Rodney Harrison, *Heritage: Critical Approaches* (Routledge, 2013), 145.

²⁸ Randall Mason, "Assessing Values in Conservation Planning: Methodological Issues and Choices," in *Assessing the Values of Cultural Heritage* (Los Angeles: Getty Conservation Institute, 2002), 9.

²⁹ Marta De la Torre, *Heritage Values in Site Management: Four Case Studies* (Getty Publications, 2005), 7.

There is, however, an inherent bias in this toolbox approach because while a variety of methods are employed and evaluation of a variety of values are acknowledged and negotiated, ultimately, negotiation and decision making are often directed by experts or powerful stakeholders. Indeed, “all heritage designation schemes are based on criteria that favor certain values, and experts will interpret the values of stakeholders in order to make decisions.”³⁰ This indicates a refusal on the part of the expert to relinquish the authority of their power and expertise indicating that consultation of stakeholders in heritage does not automatically equal representation. And so, while heritage experts could claim they were including stakeholders, they still retained ultimate authority. David Lowenthal recognizes this within US preservation: “Worship of a bloated heritage invites passive reliance on received authority... And all too often it ignores the needs of local inhabitants whose involvement is essential. That heritage is viable only in a living community is a tenet widely accepted but seldom acted on.”³¹ This call for the preservation community to not only consider stakeholder values, but to find ways for heritage valuation practices to produce meaningful inclusion of stakeholder values resulted in what has come to be known as the critical turn within heritage.

This critical turn recognized that heritage had become a social practice embedding knowledge, expertise and ideologies in a set of standards led by professionals that dictated a tangible and intrinsic heritage. Critical heritage scholars advocated for a different approach to heritage and its associated value that brings into focus the power

³⁰ Torre, 6.

³¹ David Lowenthal, “The Heritage Crusade and Its Contradictions,” in *Giving Preservation a History: Histories of Historic Preservation in the United States* (New York, UNITED STATES: Routledge, 2003), 25.

structure and stakeholder relationships to value. Laurajane Smith is highly critical of the concept that heritage is innately valuable; she calls this the Authorized Heritage Discourse (hereafter AHD), asserting that within the AHD the correct care of heritage and its values is with the expert because, “it is only they who have the abilities, knowledge and understanding to identify the innate value and knowledge contained at and within historically important sites and places.”³² The AHD therefore perpetuates heritage as monumental and tangible, privileging the expert as steward of the intrinsic value of the past. Heritage value is still dictated not by local populations, but by predetermined standards that are bound to the physical and intrinsic, promoting an uncritical, common-sense approach to heritage that encourages consensus while discounting conflict and social differences.³³ This prompted scholars to question whether the AHD and heritage as defined by accepted international heritage systems actually reflected universal values, or was simply an attempt to placate groups demanding consideration while retaining control in the face of a challenge to heritage authority.

Critical heritage scholars therefore contest the notion of intrinsic and universal value, instead defining value as the specific and unique characteristics that people assign to places, practices and things. In this sense heritage value is ascribed through social processes that are negotiated and renegotiated *by people*, making heritage and its value dynamic and changing. Critical heritage scholars challenge the notion of a fixed heritage, asserting that there is no one set of values for a ‘canon’ of heritage.³⁴ The result is a

³² Smith, *Uses of Heritage*, 29-30.

³³ Smith, 29-31.

³⁴ Harrison, *Heritage: Critical Approaches*, 145.

relative approach to heritage value, where different cultural groups are empowered to assign value as they find appropriate. Again, this concept contradicts the AHD which proclaims a universal heritage value, disengaging value as culturally specific. To understand heritage value in this sense, it is therefore essential to understand not only the material heritage but the people and processes, the dialogue and discourse that all constitute heritage.

Heritage Value within US College Campuses

An examination of campus heritage preservation literature provides insight into decision making and values that have influenced this area of heritage. As some of the oldest institutions in the US, colleges and universities have become quite adept at encouraging institutional loyalty and attachment as the means to elicit alumni funding and support as well as to build a reputation to attract new students. While these institutions draw on their history and tradition in order to accomplish these goals, campus heritage preservation poses many challenges, specifically tasking institutions to balance the preservation of heritage and simultaneously forge new paths of learning. Campus heritage is therefore a complex asset, rising out of emotions and attachments that the institution has forged. Thus, examining the changes in heritage value of sites significant to the university's past and present provide an indication of the institution's evolving priorities and values.

An influential figure within the field of campus planning, Richard Dober has contributed several books related to the topic. He advocates for campus planning that preserves while acknowledging change as necessary, inevitable, and justifiable. In

Campus Design he writes, “to save and savor is better than to destroy or diminish, not because the old is better than the new, but because blending the two communicates best, physically, the essential character of viable institutions; which, reiterated, is the signification of continuity and change.”³⁵ Therefore, while many institutions of higher learning in the US have deep historical roots reflected in the campus buildings and architecture, connections to these roots can shift as Dober refers to the varying nature of campus architectural expression that may be the result of changes within functional requirements, institutional missions, and fashion.³⁶ In *Campus Heritage* he defines the subject as, “the three-dimensional commemoration, celebration, and memorializing of people, activities, and events through and with physical objects that are consciously created or identified to serve and symbolize a college or university’s purpose, presence, and patrimony.”³⁷ Dober later questions whether heritage value alone is sufficient reason to preserve, and suggests that due to a lack of any definitive disciplinary criteria guiding campus preservation that standards from the National Register of Historic Places could be a starting point.³⁸

In *Campus Heritage Preservation: Tradition, Prospects and Challenges*, a report resulting from a 2002 national conference on campus heritage preservation, E.A. Lyon points out that while colleges and universities must abide by local, state and federal laws, they are essentially closed communities with the single purpose and mission of education

³⁵ Richard P. Dober, *Campus Design* (New York, N.Y.: JWiley, 1992), 26-28.

³⁶ Richard P. Dober, *Campus Architecture: Building in the Groves of Academe* (New York: McGraw-Hill, 1996), 49.

³⁷ Richard P. Dober, *Campus Heritage* (Society for College and University Planning, 2005), 5.

³⁸ Dober, 11.

with the power to act in their own perceived interests regardless of input from stakeholders.³⁹ Therefore, the value of heritage within a university is formed by belief systems particular to the institution and constitutes relationships between people, objects, places and memories on each campus which sometimes conflict within the same institution. While material heritage may provide insight into the goals and purpose of the university, Lyon states that conversation among stakeholder groups is vital in order to resolve tensions forming from campus planning and preservation. Despite the presence of real stressors working against the protection of historic resources on some campuses, Lyon asserts that many colleges, “market themselves to prospective students with an unusual emphasis on legacy and history.”⁴⁰ While it is clear campus heritage is a helpful tool, the fact that a national conference addressing these issues occurred indicates it is a complex asset within an evolving field.

Nijole Bulotaite evaluates European university heritage purely as a branding and marketing tool, to help the university differentiate itself from competitors as well as to promote attraction and loyalty of students.⁴¹ Bulotaite states university heritage is continually developing, supporting the notion of university heritage as a fluid social construct that adapts to the needs of the institution.

³⁹ E.A. Lyon, ed., *Campus Heritage Preservation: Traditions, Prospects & Challenges* (Eugene, OR: University of Oregon School of Architecture and Allied Arts, n.d.), 2.

⁴⁰ Lyon, 2-3.

⁴¹ Nijole Bulotaite, “University Heritage - An Institutional Tool for Branding and Marketing,” *Higher Education in Europe* 28, no. 4 (December 2003): 449–54.

Awareness of campus heritage preservation was enhanced by the Getty Foundation's Campus Heritage Initiative, which from 2002 to 2007, provided funding to colleges and universities in the United States for projects that focused on the research and survey of historic resources, preparation of preservation master plans, and development of detailed conservation assessments based on the participant colleges' own value assessment of its resources. This initiative supported preservation efforts for over eighty-five historic campuses across the country as well as a nationwide survey of independent colleges. This resulted in a raised awareness of preservation planning on college and university campuses and of the possibility of integrating preservation planning into an institution's master planning process.⁴²

In a study on student valuation of the campus built heritage at one US university and one South African university, Poor and Snowball contend that despite ninety-five campus historical districts listed on the US National Register of Historic Places, there is an absence of valuation studies of university built heritage. They suggest this may be due to reliance on expert valuations from art historians, architects and other professionals, contending there is a need for a broader range of stakeholders in built heritage decisions. They state heritage can be contentious, and not always positive for various stakeholders "as campus communities become more diverse, their historical heritage may reflect an institution's elitist beginnings and thus contribute to negative student feelings and

⁴² Getty Foundation, "Advancing Conservation: Previous Initiatives (Getty Foundation)," accessed September 28, 2018, <http://www.getty.edu/foundation/initiatives/past/campusheritage/index.html>.

opinions toward the visual built heritage on university and college campuses.”⁴³ This article not only acknowledges the shifting and multifaceted nature of university heritage but identifies the absence of valuation studies that could help institutions of higher education find resolution to campus heritage issues through evaluation and incorporation of stakeholder values.

The Society for College and University Planning devoted its June 2011 issue of *Planning for Higher Education*, to campus heritage. Entitled “Integrated Planning to Ensure the Preservation of Campus Heritage”, the issue contains twenty-two articles that discuss a variety of subjects related to university heritage management. President of the Council of Independent Colleges since 2000, Richard Ekman wrote an article in the issue on the CIC Historic Campus Architecture Project, funded by the Getty Foundation’s Campus Heritage Initiative, which resulted in the first national architecture and landscape database of independent college and university campuses. Ekman states that studying these historic buildings and landscapes, “helps to make the case for the entire sector of independent higher education and its value to our society” asserting the “campus is more than just a place but an emblem of what the institution values.”⁴⁴ Ekman stressed that the schools identified values associated with campus sites of significance themselves, so

⁴³ Joan P. Poor and Jeannette D. Snowball, “The Valuation of Campus Built Heritage from the Student Perspective: Comparative Analysis of Rhodes University in South Africa and St. Mary’s College of Maryland in the United States,” *Journal of Cultural Heritage* 11, no. 2 (April 2010): 147.

⁴⁴ Richard H. Ekman, “The CIC Historic Campus Architecture Project,” *Planning for Higher Education*, June 2011, 41.

that campus heritage included in the survey were only those that had meaning within the local campus community, recognizing the individuality that defines campus heritage.

In her article “The Historian’s and the Preservationist’s Dilemma” Barbara Christen states that campus heritage preservation addresses the physical, cultural, and social forces that imprint the college and university landscape in the widest sense. She also argues that expressing the value stakeholders attribute to these heritage sites make these forces explicit.⁴⁵ Christen contends the stages of a university’s history do not simply succeed but encompass one another just as periods of research and discovery within education learn from or build on previous periods.

While preservation is expensive, complicated, and time consuming, one article challenges that perspective. In “The Full and True Value of Campus Heritage”, Carl Elefante, who coined the phrase “the greenest building is the one already built,”⁴⁶ discusses campus heritage in relation to sustainability, maintaining that rather than replacement, a restorative approach on campuses is imperative.⁴⁷ Elefante maintains that preservation of campus heritage buildings supports an environmentally sustainable future that will actually make campuses more efficient.

Finally, in the article “User Experience and Heritage Preservation” Orfield, Chapman and Davis assert, “the decisions and processes surrounding preservation are

⁴⁵ Barbara S. Christen, “The Historian’s and the Preservationist’s Dilemma,” *Planning for Higher Education*, June 2011, 104.

⁴⁶ Carl Elefante, “The Greenest Building Is... One That Is Already Built,” *Forum Journal* 27, no. 1 (2012): 67.

⁴⁷ Carl Elefante, “The Full and True Value of Campus Heritage,” *Planning for Higher Education*, June 2011, 87.

often no more modern than the structures themselves; we often use old metaphors to define the parameters of preservation rather than consider what is most relevant given our current time period, pragmatic considerations, and overall aesthetic objectives.”⁴⁸ Institutions must evaluate the definition and reasons for preservation, and the results produced so that preservation can be evidence based and inclusive of the sentiments of future users. They suggest using User Perceptual Benchmarking to measure user feelings and associations regarding a building as well as how successful a preservation project is at maintaining the associated meaning produced.⁴⁹ Rather than perpetuating preservation processes that are no longer relevant to local values, the authors advocate for processes that reflect the nuances of the institution led by stakeholders within each institution.

In a recently published article, Zenobia Kozak also provides a compelling argument for the place of the university museum and collections as instruments of heritage that can provide material evidence of the progression of teaching and knowledge at a university.⁵⁰ This discussion is particularly relevant to the Rutgers Geology Museum, illustrating how the discovery of institutional heritage as well as didactic and cultural significance within sites at a university also demonstrates their utility.

⁴⁸ Steven J Orfield, J. Wesley Chapman, and Nathan Davis, “User Experience and Heritage Preservation,” *Planning for Higher Education*, June 2011, 201.

⁴⁹ Orfield, Chapman, and Davis, 207.

⁵⁰ Zenobia R. Kozak, “The Role of University Museums and Heritage in the 21st Century,” *The Museum Review* 1, no. 1 (December 14, 2016), <http://articles.themuseumreview.org/vol1no1kozak>.

While the literature reviewed here focuses separately on campus preservation and value as it relates to cultural heritage, there has not been significant research on the change in heritage value of one site over time. This thesis will therefore use the preceding literature as a foundation from which to develop a consideration of the heritage value of the Rutgers Geology Museum that provides a multifaceted understanding of the continual development of the constituent parts of the site's heritage value.

Chapter 3 - Methodology

This thesis examines whether the heritage value ascribed to the Rutgers Geology Museum has changed over time with a detailed study of three specific time periods that mark seminal moments in the museum's history because these are the moments in which the museum transformed into a heritage object. The factors that contributed to variations in heritage value at critical junctures in its history then become clear, indicating that this heritage value has changed over time, from its 1872 construction through two moments of rebirth of the site.

Methods

Critical Discourse Analysis (CDA) was employed to assess written texts related to the Rutgers Geology Museum for evidence of social process and change through language. Using language as method, CDA is used to study the effects of language within society. Thus, it is a "theoretical platform and methodological approach that sees language as a tool to reveal and reflect social projects and relations."⁵¹ Based on systems of knowledge and power,⁵² CDA can be used to study complex social phenomena as expressed through language. The goal in using CDA is to gain an accurate understanding of how language functions in constituting and conveying knowledge, in structuring social institutions or in exercising power.⁵³ While use of this method has not been widely explored in heritage studies, it can provide a way to examine the language and texts used

⁵¹ Smith, *Uses of Heritage*, 16.

⁵² Norman Fairclough, "The Discourse of New Labour: Critical Discourse Analysis," in *Discourse as Data* (London ; Thousand Oaks, Calif, 2001), 232.

⁵³ Ruth Wodak and Michael Meyer, eds., "Critical Discourse Analysis: History, Agenda, Theory and Methodology," in *Methods of Critical Discourse Analysis*, 2nd ed, *Introducing Qualitative Methods* (London ; Thousand Oaks [Calif.]: SAGE, 2009), 7.

in heritage in connection with resulting social interactions.⁵⁴ This method can identify particular ways of speaking, understanding, and interpreting texts within preservation and heritage used by local and official actors to deconstruct taken-for-granted systems that can take on a powerful role while assuming a neutral position.

Through an analysis of discourse, the ways in which documents and texts are translated into social practices become more distinct, revealing how the heritage value of the Rutgers Geology Museum is expressed through various types of discourse in relation to different historical, political and scientific moments. This examination of texts provided evidence of language that denotes significance, revealing the values deployed at each point in time to re-invent or ascribe to the site different types of heritage value. This evidence revealed how language is used to develop power structures that shape significance and determine the values attributed to the site, effectively breaking heritage value down into its constituent parts. Analysis of evidence from museum related texts allowed for observation on whether and how the heritage value of the museum has changed over time. Furthermore, this analysis provides a thorough account of how the Rutgers Geology Museum's purpose and function within the historical context of Rutgers University has evolved. My findings help reveal and understand the network of relations involved in forming the heritage value of the Rutgers Geology Museum and how certain practices, and not others, emerge and achieve an authoritative status with regard to the site.

⁵⁴ Emma Waterton, Laurajane Smith, and Gary Campbell, "The Utility of Discourse Analysis to Heritage Studies: The Burra Charter an...: Articles+," *International Journal of Heritage Studies* 12, no. 4 (2006): 342.

Methodological Tool

I employed CDA to evaluate the language in the texts, described in the following sections, to find specific words and phrases indicating how language is coded and value is applied and utilized at this site. First, I used two categories of value, Historical Value and Use Value based on Reigl's categories in *The Cult of Monuments*,⁵⁵ as a basis to find the indicators of value to search for within the sources. These are two categories that apply to the Rutgers Geology Museum because of its past and current historical and practical use. Reigl states that Historic Value is characterized by irreplaceable commemorative qualities that represent exceptional stages in the development of human activity. Historic value represents preserved evidence of its time and an indispensable link in the chain of history. Whereas Historic Value is rooted in past events and sites, Use Value exhibits significance in the present time. In order to have Use Value, the monument's existence cannot be threatened, necessitating upkeep and restoration. This active, practical and familiar use can contribute to the value of a site or object. Based on these characteristics, there were numerous instances of discourse that reflect these two value categories within texts related to the site because the Rutgers Geology Museum represents the historical past of geological education at Rutgers and continues to be in use today.

Analyzing the sources described in the following sections with Reigl's categories as a basis helped me to locate words and phrases that signify or represent Historical and Use Value. This data, found in Appendix A, provided a relevant basis upon which to develop a lexicon of heritage keywords. This lexicon is comprised of words that were

⁵⁵ Reigl, "The Modern Cult of Monuments: Its Essence and Its Development."

frequently and repeatedly deployed within the sources in order to designate and shape value related to the Rutgers Geology Museum. I then analyzed the data from the same sources a second time, consistently applying this lexicon within each time period to determine how many times each heritage-related keyword appeared in discourse connected to the site. This data is found in Appendix B, distinguishing instances of heritage discourse by time period. I then analyzed this data to find evidence of patterns of change in heritage value ascribed to the Rutgers Geology Museum over time.

Limitations

Limitations of this method exist in that personal bias can affect the researcher's ability to remain objective. However, it is impossible to be completely objective, therefore a certain amount of subjectivity in the word selection for both the categories of value and the lexicon is acknowledged. Additionally, the examination of discourse within sources across the different time periods in this analysis required an etymological consideration of heritage language because terms change and develop throughout time. The words that indicate heritage value in 1872 may not be the same in 2018, as evidenced by the fact that only three words in the lexicon appear in all three time periods studied. Consequently, the lexicon expanded to include any words that were used four times or more throughout the sources so that all time periods would be represented in the second analysis.

While an in-depth examination of fluctuations in word usage and meaning is outside of the scope of this thesis, a brief exploration of the changes in historical word use is helpful in order to consider how discourse evolves and how this impacts this

analysis. A tool that tracks word use over time within a corpus of books within a selected span, Ngram⁵⁶ provides the means to quickly and simply evaluate trends in word use and meaning historically. For example, Ngram shows an increase in usage of the four most frequently used words listed in Appendix B between 1800-2019, reflecting the same increase found in this analysis. However, while Ngram results support the data for some of the words found in Appendix B, this is not the case with all of the words in this analysis. Nevertheless, Ngram is a useful tool that can indicate when change occurs to words and within entities, augmenting studies of discourse over time.⁵⁷ The Oxford English Dictionary is another resource that provides information on word etymology.⁵⁸ According to this resource, the meanings of the words listed in Appendix B have all remained relatively consistent through time. While the meanings of the words listed in Appendix B have not changed substantially, the examination of fluctuations in both frequency and meaning must be considered when studying change over time. This research therefore deals with different languages of time, requiring me to evaluate and consider language equivalencies in order to establish a consistent lexicon to be applied to all time periods to be studied.

Sources Studied - 1872

Sources that provided context and an understanding of the relevant political and social issues of the time that influenced the museum's inception are historical analyses

⁵⁶ "Google Ngram Viewer," accessed March 19, 2019, <https://books.google.com/ngrams/info>.

⁵⁷ Derry Tanti Wijaya and Reyyan Yeniterzi, "Understanding Semantic Change of Words over Centuries," in *In Proceedings of the 2011 International Workshop on DETecting and Exploiting Cultural Diversity on the Social Web*, 2011, 35–40, <https://doi.org/10.1145/2064448.2064475>.

⁵⁸ "Oxford English Dictionary," accessed March 20, 2019, <http://www.oed.com/>.

specific to Rutgers by Adamo, Demarest, McCormick and Sidar as well as Thelin's history of US higher education. A review of the Morrill Act placed decisions made in regard to the Rutgers Geology Museum in the larger framework of science and higher education in the US at the time. The sources that document discourse regarding the Rutgers Geology Museum for the period of 1870-1872, were located in Special Collections and University Archives at Rutgers. Initially the archival records were analyzed for instances when the museum was simply mentioned in this period. Rutgers College Board of Trustees and Faculty meeting minutes contained several examples of museum-related discourse. Professor George Cook's papers included only one item. Microfilm for the Rutgers College student newspaper, *The Rutgers Daily Targum (The Targum)*, contained several articles in which Geological Hall was mentioned. Finally, the college yearbook for 1872, *The Scarlet Letter*, mentions the Geology Museum. President William Campbell's papers contained no reference.

Sources Studied – 1972-1973

After one hundred years, the heritage value of the Rutgers Geology Museum in 1972 is likely to have shifted due to the emergence of the historic preservation movement in the United States as the country's bicentennial approached and due to the aging of the building. The NHPA provided context and an understanding of the relevant political and social issues of the time as it shaped a new articulation of heritage value not only for this site but for the entire United States. Understanding this legislation that formed the historic preservation laws in the United States and created the National Register of Historic Places indicated how the value of heritage in the US was articulated in official

government legislation at that time. The sources that document discourse regarding the Rutgers Geology Museum between 1972-1973, were located in Special Collections and University Archives at Rutgers. The 1972 National Register Application provided limited museum-related discourse, as this application was nominating a district comprised of six buildings, one of which was the Rutgers Geology Museum. Microfilm for the Rutgers University student newspaper, *The Targum*, area newspapers and the Rutgers University faculty newspaper, *The Rutgers Newsletter*, and the *Rutgers Alumni Magazine* each contained references to the Geology Museum in this time period. The Rutgers University Board of Governors minutes had one reference. The Rutgers University Board of Trustees minutes, as well as records of Rutgers President Edward Bloustein, contained nothing referring to the Rutgers Geology Museum during this time period. Additionally, no evidence of Alumni group meetings or minutes could be located, nor an archive of university press releases. The absence of information during these years will be explored in more detail in the chapter devoted to data findings for this time period.

Sources Studied - 2018

The sources that document discourse regarding the Rutgers Geology Museum for the period of 2013-2019, were either available online or obtained directly from the Rutgers Geology Museum. The Geology Museum Strategic Plan, Incident Response Plan and the Big Idea Proposal were provided by museum personnel. Sources including the Rutgers Geology Museum website, Rutgers student newspaper *The Targum*, Rutgers Instagram, Save the Geology Museum Facebook Page, a Change.org petition and a

Rutgers publication commemorating the 250th anniversary of the university were all available online.

Archival Research and Data

Once all sources were located and copied, CDA was employed to find statements of value within discourse pertaining to the site in the sources. These statements of value include discourse referring to the structure known as Geology Hall, Geological Hall, the Rutgers Geology Museum within that building, the contents and collections contained within the museum, and the Old Queen's Historic District, which names Geology Hall as one of the six buildings included in the historic district. Utilizing Riegl's categories of Historic and Use Value as a basis for this first analysis provided a foundational perspective from which to sift through the discourse related to the museum found within the sources. As stated earlier, the nature of this foundation is subjective, and originates from Riegl's assertion that the value of the monuments that constitute heritage are not defined by rigid, objective criteria, but rather the subjective views of the public.⁵⁹ Therefore, this sifting process, while subjective, provided a critical means to distinguish between a statement that simply mentioned the museum and a statement that expressed the value of the museum.

The number of statements of value increased with each time period in this analysis. These differences must be understood in conjunction with the concomitant changes in modes of communication and dissemination of information throughout the

⁵⁹ Michele Lamprakos, "Riegl's 'Modern Cult of Monuments' and The Problem of Value," *Change Over Time* 4, no. 2 (fall 2014): 420.

time periods analyzed. For example, in 1872, *The Targum* was published on a monthly basis. In 1972, it was published five days per week. And by the 2013-2019 time period, the ability to participate in public discussion and dissemination of information was profoundly different than in 1872 and 1972, affecting expressions of value just as societal changes affect heritage value.

Once the expressions of value from the sources were organized into the three time periods, it became apparent the discursive expressions of value regarding the Rutgers Geology Museum were prolific but remarkably variant. From this first analysis, the lexicon of words was developed by examining the many expressions of value and extracting the words articulating value that were used most frequently. Here again a subjective decision was made in determining which words within statements of value to include in the lexicon. If inclusion in the lexicon was limited to words that were used ten times or more, only three words would form the lexicon, and none of them would have included the 1872 or 1973 time periods. Therefore, in order to include words that would be found in all three time periods, the lexicon consists of any words that were used four or more times throughout the statements of value. When the terms in the lexicon were applied to the statements of value from the sources for each time period to see how many times each term is used, it became apparent that although the lexicon provided organization and focus to the data, it limited the variant nature of the expressions of value in some of the time periods, but expanded the number of expressions of value in the last time period.

At this juncture two points were illustrated. First, the wide variety of expressions of value confirms Riegl's and Mason's assertions that heritage is multivalent, contingent

and subjective.^{60,61} Second, it does not support Mason's use of value typologies. While Mason states that typologies are to be used strictly as a starting point to order and organize knowledge,⁶² in this current analysis on the Rutgers Geology Museum, the use of typologies as a starting point swiftly limited some of the expressions of value that would be included in the analysis. However, while this lexicon narrows the results in the first two time periods, the application of the lexicon provides an easily observable continuum of consistent statements of value over the course of the three time periods studied, illustrating the change in articulation of heritage value over time. Furthermore, the original expressions of value from the first analysis still exist and can be considered in this analysis in addition to the more narrow and quantified results produced by the lexicon, providing a complex analysis of the change in heritage value of the Rutgers Geology Museum. The results which the lexicon helps to both highlight and to suppress will be explored in the following chapters according to time period.

⁶⁰ Randall Mason, "Assessing Values in Conservation Planning: Methodological Issues and Choices," in *Assessing the Values of Cultural Heritage* (Los Angeles: Getty Conservation Institute, 2002), 8.

⁶¹ Reigl, "The Modern Cult of Monuments: Its Essence and Its Development."

⁶² Mason, "Assessing Values in Conservation Planning: Methodological Issues and Choices." P. 6.

Chapter 4 – Data Findings 1872

Background and Events of the Time Period

In 1864, Rutgers College employed six full time and two part time faculty members, one of whom was a science professor. By 1882, full time faculty numbered twelve, including three science professors. In this time period, Rutgers gained further independence from the Dutch Reformed Church⁶³ as the nation was beginning to embrace more secular scholarship at the collegiate level where science and utilitarian studies⁶⁴ became an important part of many US institutions of higher education. The desire for intellectual utility and an American system in the arts and sciences⁶⁵ was a driving force both on a national level with the passage of the Morrill Act and also at Rutgers, as its faculty propelled scientific education forward, led by professor George Cook. While Rutgers College administrators struggled to procure funding from the state, and attendance and support of the scientific school was not as successful as expected,⁶⁶ the individuals responsible for the administration of Rutgers managed to find fiscal success in at least two fruitful fundraising campaigns during this time period. Rutgers President William Campbell's leadership combined with these advancements brought Rutgers to new heights in scholarship, attendance, and academic progress⁶⁷ and the

⁶³ Richard Patrick McCormick, *Rutgers: A Bicentennial History*, (Rutgers University Press, 1966) 86.

⁶⁴ Stanley M Guralnick, *Science and the Ante-Bellum American College* (Memoirs of the American Philosophical Society, 1975) 120-125.

⁶⁵ Guralnick, *Science and the Ante-Bellum American College*. 120-125.

⁶⁶ Jean Wilson Sidar, *George Hammell Cook : A Life in Agriculture and Geology /* (Rutgers University Press, 1976) 101.

⁶⁷ William H. S. Demarest, *A History of Rutgers College, 1766-1924* (New Brunswick, N.J.: Rutgers College, 1924) 393-452.

College was able to construct two new buildings on its campus for the first time in thirty years, one of which was the Rutgers Geology Museum.

Sources and Expressions of Value

Evidence of discourse related to the planning and erection of the Rutgers Geology Museum is minimal in the archives for this time period. All records are handwritten and while organized by year, do not always bear an official date. Sometimes simply written on a piece of paper, decisions and resolutions provide terse indications of the process and timing of the construction of the Rutgers Geology Museum, allowing an outline of events related to this new building to be pieced together. This time period contains the fewest expressions of value out of the three stages examined. While fourteen different sources containing more than twenty expressions of value were located within the materials studied for this time period in the first analysis (see Appendix A), when the lexicon was applied to the statements of value, the expressions of value remaining in the second analysis were reduced to sixteen, as the lexicon is comprised of words that are used four times or more (see Appendix B). These sixteen expressions of value are found in eight of the sources listed in Appendix A.

Expressions of Value in the Lexicon

Versions of the word “need” were used five times in this time period to express requirements for the current and active use of the Rutgers Geology Museum in 1872. These expressions of value call for specific items that would contribute to the practical and active Use Value of the building. For example, Professor George Cook’s 1872 letter to President Campbell outlines a list of specific items required at the Rutgers Geology

Museum,⁶⁸ and an October 1872 article in the *The Targum* calls for “friends and well-[J]wishers” to provide funds for cases displaying specimens in the Museum.⁶⁹

The word “fine” is used four times in this time period to indicate the exceptional qualities of the Rutgers Geology Museum. In one article from the April 1871 issue of *The Targum*, the word “fine” appears three times to refer to the Rutgers Geology Museum,⁷⁰ and is used once more in the February 1872 issue of the same publication.⁷¹ These statements indicate the Historic Value of the site, and serve to communicate and document a striking stage of development that the construction of the museum represented at this point in the college’s history.

The word “use” appears three times, employed by the Rutgers Faculty, Board of Trustees and Professor George Cook to provide clear justification for construction of the building and provide evidence of its Use Value. The faculty asserts that this building constitutes “...an appropriate use to devote a portion of funds which [donors’] liberality has placed at your disposal,”⁷² after indicating the need for the building, thus validating the hoped-for approval of the faculty’s request. The Board of Trustees later employs the word in its resolution approving the plan to erect the new building, indicating how the

⁶⁸ George H. Cook, “List of Needs of Geology Museum,” October 1, 1872, Cook Papers, Rutgers College Folder, Box 17, Special Collections and University Archives, Rutgers University Libraries.

⁶⁹ “On September 20th,” *The Targum.*, October 1872.

⁷⁰ “Geological Hall,” *The Targum.*, April 1871.

⁷¹ “College Dots,” *The Targum.*, February 1872.

⁷² Rutgers College Faculty, “Records : Manuscript Minutes, Enclosures, and Subject Files, 1778-1956 (Communication to the Board of Trustees from the Faculty in Regard to a Professorship of Analytical Chemistry),” June 20, 1870, Special Collections and University Archives, Rutgers University Libraries.

building will function. Finally, Professor George Cook indicates the list of items needed, "For furnishing & preparing the Geological Hall for its uses."⁷³

The words "history", "important" and "proud" were each used one time during this time period, again articulating the commemorative evidence of a specific time indicative of Historic Value. "History" and "proud" are used in one particular source included in the second analysis that includes examples of both Historic and Use Value. A four-page letter from the Rutgers College Faculty to the Rutgers College Board of Trustees dated June 20, 1870, contains the first indication within this period of need for a new building at Rutgers College. The letter makes it clear the faculty understood that as the Land-Grant institution of New Jersey, it was urgent that advancements and additions in scientific education, specifically the creation of a department of analytic chemistry, was necessary in order for Rutgers to fulfill the requirements of land-grant status and continue its leading position in New Jersey as a scientific institution. The letter points out a practical and organic need for a building stating, "It will of course be apparent that the full equipment of this department will involve the necessity of providing a room of considerable dimensions for a working laboratory, with a lecture room [and] private laboratory attached."⁷⁴ This letter points out a specific need and consequent Use Value of the building while at the same time intimating the building's role as a pivotal stage of development, stating: "to carry out these important designs and thus to enlarge and

⁷³ Cook, "List of Needs of Geology Museum."

⁷⁴ Rutgers College Faculty, "Records : Manuscript Minutes, Enclosures, and Subject Files, 1778-1956 (Communication to the Board of Trustees from the Faculty in Regard to a Professorship of Analytical Chemistry)."

multiply the means of the education of the College seems to the faculty a fit inauguration of the second century of the College History.”⁷⁵ Statements of value expressed by the faculty in this letter provide examples of both the practical and active qualities of Use Value represented by the building that would become the Rutgers Geology Hall as well as the irreplaceable and commemorative qualities of Historic Value.⁷⁶

Expressions of Value Not Included in the Lexicon

Several sources that contain statements of value and indicate significance of the Rutgers Geology Museum are not included in the lexicon because the words used in these sources do not appear frequently enough within the discourse related to the museum. For example, in July 1870, the Rutgers College Board of Trustees approved the use of a considerable portion of the college’s recent centennial fundraising drive to erect Geological Hall to house a chemical laboratory as well as a museum and cabinets.⁷⁷ The reporting of this act, and the act itself, are indications of value because of the large sums of money dedicated to erect the building. Indeed, the final cost of Geological Hall was approximately \$63,000,⁷⁸ constituting over half of the entire Centennial Fund. The announcement of a ceremony to lay the cornerstone of Geological Hall in June 1871⁷⁹ as well as the announcement of a celebration in honor of the opening of Geological Hall at

⁷⁵ Rutgers College Faculty.

⁷⁶ Alois Reigl, “The Modern Cult of Monuments: Its Essence and Its Development,” in *Historical and Philosophical Issues in the Conservation of Cultural Heritage* (Getty Publications, 1996), 70.

⁷⁷ Rutgers College Board of Trustees, “Records : Manuscript Minutes, Enclosures, and Subject Files, 1778-1956 (Minutes from Special Meeting of Rutgers College Committee Appointed to Recommend Proper Way to Dispose of the Funds of the New Endowment),” July 8, 1870, Special Collections and University Archives, Rutgers University Libraries.

⁷⁸ Demarest, *A History of Rutgers College, 1766-1924*, 435.

⁷⁹ “Centennial,” *The Targum.*, June 1871.

the May 1872 Rutgers College faculty meeting⁸⁰ also indicate practices that commemorate a building that has come to represent a watershed moment in the development of Rutgers College. Finally, a resolution by the Board of Trustees to express, “...its high appreciation of the taste and skill of Mr. Henry J. Hardenbergh, the architect of this Geological Hall, and of the fidelity with which he has superintended its construction,”⁸¹ is another example of discourse that constitutes a statement of value for the Museum but is not included in the lexicon. These statements of value were not included in the second analysis because they do not contain any of the words in the lexicon, yet they represent important statements that contribute to this analysis, providing a more complete understanding of the actions taken in the past that demonstrate how the value of the Rutgers Geology Museum was articulated at this particular point in time.

How Language Functions to Express Value

The discourse related to the Rutgers Geology Museum during this period accomplished several things. First, the expressions of value found in the sources analyzed here were purposefully iterated to both document and commemorate the events surrounding the creation of the museum that were significant to Rutgers at that time. Rather than statements merely describing the museum, they contained words that built up the institutional emotions, attachments and loyalty described in the literature review

⁸⁰ Rutgers College Faculty, “Records : Manuscript Minutes, Enclosures, and Subject Files, 1778-1956 (Rutgers College Faculty Meeting Minutes),” May 31, 1872, Special Collections and University Archives, Rutgers University Libraries.

⁸¹ Rutgers College Board of Trustees, “Records : Manuscript Minutes, Enclosures, and Subject Files, 1778-1956 (Rutgers College Board of Trustees Minutes - New Business),” June 18, 1872, Special Collections and University Archives, Rutgers University Libraries.

of campus heritage in Chapter 1 of this thesis. Once the statements of value documented these events, they acted to forge relationships between people, objects, places and memories, and served to immediately ascribe heritage value to the site. The language used in these sources therefore contain the constituent parts of the heritage value of the Rutgers Geology Museum, and together formed the Historic and Use Values conveyed to others through these statements of value. Discourse was constructed in order to inspire pride: “The Geological Hall now stands proudly forth in noble proportions...”⁸² as well as to elicit contributions: “How many of our friends will pledge themselves to furnish each a case?”⁸³ Therefore, discourse serves to justify the building and the value that it represents.

At a time when the survival of institutions of higher education was precariously based on the ability to procure funding, entice students who could afford a college education, as well as convince the public a college education was worth the expense, administrators of Rutgers College had to ensure that every word uttered and written complimented its 100 year history and strengthened its reputation for the future.⁸⁴ At this stage in the development of Rutgers College, Geological Hall represented progress, an investment in a scientific future and, despite an article in the student newspaper bemoaning the design of the building,⁸⁵ provided the material and architectural evidence of the values articulated in the sources found in this analysis.

⁸² “Editorial,” in *Scarlet Letter*, 1872, 3–6.

⁸³ “On September 20th.” *The Targum.*, October 1872.

⁸⁴ John R. Thelin, *A History of American Higher Education*, 2nd ed. (Johns Hopkins University Press, 2011).

⁸⁵ “The Chapel,” *The Targum.*, March 1872.

Chapter 5 – Data Findings 1973

Background and Events of the Time Period

By 1973, the small private college had evolved into Rutgers, The State University of New Jersey which included three campuses in Newark, Camden and New Brunswick containing multiple undergraduate liberal arts colleges, professional schools and centers. On the New Brunswick campus five undergraduate colleges formed a federated college system.⁸⁶ In addition to Rutgers College and Douglass College, Livingston College was formed in 1969, followed by Cook College in 1971, formerly the College of Agriculture and Environmental Science, resulting in four residential liberal arts colleges in New Brunswick, each with its own faculty and curricular programs, as well as University College for commuter, part-time and evening students, as well as various professional schools.⁸⁷ In 1971, Edward Bloustein became the seventeenth President of Rutgers, managing a period of great change within the university and the university mission to make education available to a greater cross-section of New Jersey's population.⁸⁸ In 1972, in response to a report on campus crime, Rutgers Police were authorized to be armed,⁸⁹ and in the fall of that year Rutgers College admitted women for the first time in its history,⁹⁰ causing a rift between the Boards of Governors and Trustees.⁹¹

⁸⁶ Paul G. E. Clemens, *Rutgers since 1945: A History of the State University of New Jersey*, Rivergate Regionals Collection (New Brunswick, New Jersey: Rutgers University Press, 2015) 19.

⁸⁷ Clemens, 40.

⁸⁸ Clemens, 35.

⁸⁹ Clemens, 37.

⁹⁰ Clemens, 117.

⁹¹ "Rutgers College Board of Trustees Minutes" (Rutgers, The State University of New Jersey, September 1972), Special Collections and University Archives, Rutgers University Libraries.

Within the tumult of these events, the Rutgers Geology Museum quietly stood in its original location, housing various science departments until 1928,⁹² and then exclusively the Geology Department until 1977, when Geology joined all other science departments on Rutgers' Busch Campus.⁹³ In 1972, Rutgers College alumnus Michael C. Barr prepared an application to nominate the Queen's Campus to the National Register of Historic Places,⁹⁴ an act barely noticed by Rutgers University until acceptance of the nomination in 1973.

Sources and Expressions of Value

Evidence of discourse related to the 1972 nomination and 1973 acceptance of the Rutgers Geology Museum to the National Register of Historic Places as part of the Queen's Campus Historic District is minimal. When analyzing the archives for sources that mention the Rutgers Geology Museum during this time period, there was no reference to the site by any administrating body within Rutgers in 1972, because the NHPA Amendments of 1980 that mandated owner consent provisions had not yet been enacted.⁹⁵ Therefore, when Barr perceived that Winants Hall, one of Rutgers College's original buildings, was under threat due to serious deterioration and partial condemnation as stated in the article he wrote for *Rutgers Alumni Magazine*,⁹⁶ he was able to work with Rutgers Campus

⁹² Albert S. Wilkerson, *An Abbreviated History of Geology at Rutgers, the State University, from 1830 to 1963* / (Rutgers University, 1963) 17.

⁹³ Lauren Adamo et al., "The Rutgers Geology Museum: America's First Geology Museum and the Past 200 Years of Geoscience Education," in *Museums at the Forefront of the History and Philosophy of Geology: History Made, History in the Making* (Geological Society of America, 2018) 13.

⁹⁴ Michael C. Barr, "Winants Hall: Requiem or Renewal," *Rutgers Alumni Magazine*, December 1972, 20.

⁹⁵ Jess Theodore, "Over My Dead Property! Why the Owner Consent Provisions of the National Historic Preservation Act Strike the Wrong Balance Between Private Property and Preservation" (2008).

⁹⁶ Barr, "Winants Hall: Requiem or Renewal."

Planner Edward Wilkens to prepare and submit the nomination, sponsored by the Rutgers Alumni Association,⁹⁷ without obtaining permission from any Rutgers official.⁹⁸

Seven different sources containing twenty-three expressions of value were located within the sources studied for this time period in the first analysis (see Appendix A). Three of the sources discuss the nomination, three discuss the acceptance, and one source comes a year after the acceptance. When applying the lexicon to the expressions of value, eighteen statements of value remained in the second analysis for this time period (see Appendix B). These eighteen expressions of value are found in all seven of the sources listed in Appendix A.

Expressions of Value in the Lexicon

Versions of the word “history” appear five times in the sources analyzed in this time period (note, the word “historic” as it appears as part of the National Register of Historic Places title is not included in the count). The use of this word signifies the Rutgers Geology Museum’s place in the history of Rutgers in one example,⁹⁹ but in all other instances this word is used to directly refer to the historic designation the National Register listing assigns to the site. For example, an article in the *Rutgers Alumni Magazine* states, “As a governmentally-recognized historic site, the campus would not only gain national attention but would be protected from either federal or state projects that may have an ‘adverse effect.’”¹⁰⁰ And *The Targum* noted, “The original Queens Campus has

⁹⁷ “National Register of Historic Places Inventory Nomination Form, Queen’s Campus, Rutgers University.”

⁹⁸ Michael C. Barr, Experience and Perspective on National Register of Historic Places Nominations at Rutgers in 1970s, interview by Carol McCarty on February 2, 2019.

⁹⁹ Barr, “Winants Hall: Requiem or Renewal,” 23.

¹⁰⁰ Barr, “Winants Hall: Requiem or Renewal,” 20.

been designated a historic site by the U.S. Department of the Interior.”¹⁰¹ These statements reflect the property’s newly ascribed national significance, using the term "historic" to invoke a new level of esteem based on governmental authority. The resulting expanded heritage value of the Rutgers Geology Museum included a national context that demanded a new respect for governmental protection and approval.

Out of the five times the word “old” is found in the sources for this time period, it is most often used in the form of “oldest” emphasizing the age of the site as preserved evidence of a certain time period to establish the Historic Value of the buildings, and thus validating and supporting the nomination. Narrative for the Rutgers Geology Museum on the nomination form states, “...it is the oldest continuously used department building in the United States.”¹⁰² This use of the superlative within the nomination to the National Register of Historic Places again serves to place the site within a national context, indicating the site’s importance not only to the local community, but also nationally.

Each of the sources containing statements of value for this period developed the Historic Value of the Rutgers Geology Museum. The word “original” can be found twice in the sources, referring to the physical area of Rutgers where the campus originated, providing an inextricable physical and architectural link in the chain of the college’s development. "Proud" is used twice in an article by Barr,¹⁰³ conveying his sense of dignity and honor that the Queen’s Campus buildings represent. The word "preserve" can be

¹⁰¹ “Queens Campus Now a Historic Site,” *The Rutgers Daily Targum*, September 17, 1973.

¹⁰² “National Register of Historic Places Inventory Nomination Form, Queen’s Campus, Rutgers University.”

¹⁰³ Barr, “Winants Hall: Requiem or Renewal.”

found one time, illustrating the need to protect the buildings listed on the National Register nomination from demolition, and save them, “from the fate that befell the President’s House.”¹⁰⁴ Together, these words serve as statements of value referring to the irreplaceable and commemorative qualities that form the Historic Value of the Rutgers Geology Museum.

While statements of value equally supported both Use and Historic Value in 1872, within this 1972 time period there are only two sources that articulate the Use Value of the site. Statements of value in one source included in the lexicon employ the prolonged Use Value of the Rutgers Geology Museum to then reinforce its Historic Value. The word "use" appears in the sources twice to refer to the nomination form which stated the Rutgers Geology Museum is, “the oldest continuously used department building in the United States.”¹⁰⁵ These statements establish the fact that this building’s active and practical use has continued for so long that this lengthy Use Value actually contributes to the Historic Value of the building’s inextricable place in the history of the college and the nation.

Expressions of Value Not Included in the Lexicon

While the results of the second analysis illustrate how the same words are used to articulate value over time, there are several meaningful expressions of value omitted from the lexicon worthy of consideration. As mentioned in the last section on 1873, the \$63,000 cost of the Rutgers Geology Museum represented a significant monetary

¹⁰⁴ Barr. 23.

¹⁰⁵ “National Register of Historic Places Inventory Nomination Form, Queen’s Campus, Rutgers University.”

investment as an expression of value. The reference to this on the National Register application during the 1972/3 time period indicates a noteworthy event that bespeaks the site's value, filtered out of the statements of value listed in Appendix B.

An additional statement of value absent from the lexicon is the word "hallowed". This word is used only twice throughout the sources, and only in this time period, presenting a powerful indication the Queen's campus is a place that is greatly revered and sacred. The faculty newspaper *Rutgers Newsletter* used the phrase "HALLOWED GROUND" at the outset of an article reporting the National Register nomination and the article calls the Queen's Campus, "the cradle of Rutgers."¹⁰⁶ The word "hallowed" is also used in the *Rutgers Alumni Magazine* article, stating the Queen's Campus is, "...held hallowed by nearly every alumnus."¹⁰⁷ Both uses of the word indicate this property represents a site significant to the university's past and present, serving to maintain a connection to the architectural and material expressions of the roots of the college, and thus develop the heritage value presented to the public. Yet this word has a spiritual meaning, indicating a consecrated and holy place that is quite different than other words used to express value in this analysis. In employing hallowed, a certain reverence to this original campus of Rutgers is encouraged. It is with this reverence that institutional loyalty is cultivated through meaning and connection to the physical and tangible campus architecture, yet these statements are filtered out of the second analysis by the lexicon.

¹⁰⁶ "Seek 'Historic' Status," *Rutgers Newsletter*, April 24, 1972, Vol. 26, No. 15 edition.

¹⁰⁷ Barr, "Winants Hall: Requiem or Renewal."

Another source in this time period that develops the Use Value of the Rutgers Geology Museum but is not included in the lexicon is a 1974 article in the *Rutgers Alumni Magazine*. Featuring the contrast between the site's high visitor numbers and its "shoestring" budget,¹⁰⁸ the article emphasizes the high level of the current and practical use of the museum by presenting specific visitor numbers to prove the regular use of the museum by the university community. Statements within this article reinforce the Use Value of the site and provide evidence the Rutgers Geology Museum is actively used and maintains a relevant role at Rutgers. The article notes an unspoken lack of both Historic and Use value by the insufficient funding represented by the numerous references to the shoestring budget and physical condition of the building, and then extolls the Use Value of the site to validate the existence of the museum, implicitly making the case for additional funding. While the lexicon filtered out these expressions of value, it is important to consider them in the scope of this analysis in order to create a multifaceted representation of the heritage value of the site that includes the complexities involved in the articulation of this value.

How Language Functions to Express Value

In the 1972-3 period, discourse related to the Rutgers Geology Museum shifts away from a Rutgers-centered perspective to incorporate the authority of the National Register listing of the Queen's Campus and the articulation of the heritage value of the site. The expressions of value within the sources studied show how the heritage value of

¹⁰⁸ E.L.C., "A Shoestring Operation Attracts Thousands to Campus," *Rutgers Alumni Magazine*, Homecoming 1974.

the buildings on Queen's Campus was re-ascribed during this period, applying and incorporating a national heritage policy that transformed the site from an institutionally important site into a nationally significant heritage object. The statement, "The original Queens Campus has been designated a historic site by the U.S. Department of the Interior,"¹⁰⁹ appears to only communicate the fact that this designation occurred. However, this communication indicates that this was a significant event and forms an example of intertextuality in which a dialog has taken place between the Rutgers community and national heritage policy, implicitly adopting the national policy through the replication of that policy in the language found in the sources analyzed.

It is important to note here that the university did not participate in the nomination, and Barr made it clear both in his article on Winants Hall¹¹⁰ and a recent interview¹¹¹ that he purposely prepared the nomination to save Winants Hall, and the entire Queen's Campus from possible demolition. The only source that originates from Rutgers administration for the analysis in this time period is a statement in the Board of Governors meeting minutes that tersely announces the National Register listing of Queen's Campus.¹¹² The article announcing the listing in *The Targum* is equally restrained.¹¹³ It is then possible to theorize that changes may have occurred to the functional requirements and institutional missions within Rutgers regarding the historic

¹⁰⁹ "Queens Campus Now a Historic Site."

¹¹⁰ Barr, "Winants Hall: Requiem or Renewal" 20.

¹¹¹ Michael C. Barr, Experience and Perspective on National Register of Historic Places Nominations at Rutgers in 1970s, interview by Carol McCarty on February 2, 2019.

¹¹² "Rutgers, The State University of NJ Board of Governors Meeting Minutes" (Rutgers, The State University of New Jersey, September 14, 1973), Special Collections and University Archives, Rutgers University Libraries.

¹¹³ "Queens Campus Now a Historic Site."

architecture of the university. This may explain why the university did not embrace this newfound nationally significant heritage thrust upon them, while the individuals driving the nomination and the media embraced the projection of governmental authority that accompanied the historic designation. Indeed, the university passed a resolution¹¹⁴ against indiscriminate nominations in the late 1970s after Barr nominated six Rutgers buildings for historic designation.¹¹⁵

The values deployed through the language found in the sources examined here re-invested and ascribed the Rutgers Geology Museum with a new heritage value, which constituted and conveyed the evolving heritage value of the site. Discourse containing heritage-based meaning relations then produce thematic familiarity and continuity as language employed in the sources replicates and assumes the authority of the national heritage preservation policy and incorporates this into the narrative for Rutgers University, thus elevating the material and architectural heritage of the university to a level of national importance. The buildings within the Queen's Campus had assumed a new place within the heritage of Rutgers and the nation.

¹¹⁴ Archival evidence of this has not yet been located.

¹¹⁵ Michael C. Barr, Experience and Perspective on National Register of Historic Places Nominations at Rutgers in 1970s, interview by Carol McCarty on February 2, 2019.

Chapter 6 – Data Findings 2013-2019

Background and Events of the Time Period

By the time we reach the 2013-2019 time period, Rutgers University had been reorganized over the course of more than three decades into a vastly different institution than in the previous two time periods studied in this analysis. Its four liberal arts colleges were merged in 2006 and schools that reflected collective disciplinary studies were created to organize academics, thus the residential campuses titles were no longer associated with the academic schools that comprised the university.¹¹⁶ Rutgers was reunited with the medical program it had lost in the early 1970s,¹¹⁷ thus becoming the state's flagship university containing comprehensive research programs in multiple disciplines. With just over fifty thousand undergraduate and almost twenty thousand graduate students between the New Brunswick campus and two campuses in Camden and Newark,¹¹⁸ Rutgers University had become a comprehensive public research institution.

Rutgers celebrated its 250th anniversary in 2015/2016, with a campaign highlighting the university's heritage and history.¹¹⁹ Festivities commemorated the November 10, 1766 date on which the institution, then known as Queen's College, received its charter. Celebrations and tributes were held on the historic Queen's Campus lawn, linking the architectural and physical remains of the origins of Rutgers with the

¹¹⁶ Paul G. E. Clemens, *Rutgers since 1945: A History of the State University of New Jersey*, Rivergate Regionals Collection (New Brunswick, New Jersey: Rutgers University Press, 2015) 88.

¹¹⁷ Clemens, 20-21.

¹¹⁸ "Factbook: Student Enrollment," Rutgers Institutional Research and Academic Planning, accessed March 12, 2019, <http://oirap.rutgers.edu/StudentEnrollment.html>.

¹¹⁹ "Rutgers 250th Anniversary," accessed February 21, 2019, <https://250.rutgers.edu/>.

celebration of 250 years of scholarship. “Revolutionary for 250 years” remains a visible testament to the heritage of Rutgers, appearing on all campus transportation vehicles, some signage on campuses, a large monument near the university visitor’s center.¹²⁰ This chapter will provide an indication of how the heritage value of the Rutgers Geology Museum changed in the nearly fifty years since its National Register of Historic Places listing.

Sources and Expressions of Value

Sources that mention the Rutgers Geology Museum for this time period were obtained either from publicly available online sources or directly from people associated with the Rutgers Geology Museum. Twenty different sources containing just over 130 expressions of value were located within these sources in the first analysis (see Appendix A). When the lexicon was applied to the expressions of value, 158 statements of value were included in the second analysis for this time period (see Appendix B) and these were found in all twenty of the sources listed in Appendix A. Unlike the first two time periods, the second analysis actually expanded the number of expressions of value because in this time period there were more instances in which multiple expressions of value were contained in each source. Additionally, this is the only time period in this analysis in which all words in the lexicon are found in the sources, and seven out of the sixteen words included in the lexicon appear only in this time period. In sum, this is a period during

¹²⁰ “The RevolUtionary Monument | Rutgers 250,” accessed February 21, 2019, <https://250.rutgers.edu/revolutionary-monument>.

which the heritage value of the Rutgers Geology Museum is articulated in many and varied ways.

Expressions of Value in the Lexicon

Because every word in the lexicon is found in the sources for this time period, the following represents several significant examples of how discourse was used during this phase. Versions of the word history are used thirty-eight times during this period and primarily refer to the Rutgers Geology Museum as an example of preserved evidence of a specific time in the past. For example, the Rutgers publication *Preserving the Past... Building the Future* celebrating the university's 250th anniversary refers to the historic significance of Rutgers University buildings such as the Rutgers Geology Museum: "Our 250 year history can be told through the lens of our buildings."¹²¹ A Big Ideas Proposal¹²² for the Rutgers Geology Museum also refers to the site as, "a resource that could celebrate [Rutgers'] long history."¹²³ These statements develop the Historic Value of the site as an indispensable link to the heritage of the university, strengthening the heritage value of the site with the commemorative qualities that constitute Historic Value.

The words "resource" and "outreach" appear eighteen times in the sources, and the word "important" appears fifteen times. These words all help to reinforce the active

¹²¹ Elizabeth C. Crann and Susan J. Ryan Eds., "Preserving the Past...Building the Future," 250th Anniversary (Rutgers, The State University of New Jersey, 2016), <http://ucmweb.rutgers.edu/ebook/ipo250/>.

¹²² Big Ideas Proposals are, "multidisciplinary, innovative, large-scale projects valued at \$25 million or more that have the potential to create lasting, transformational impact by leveraging areas where Rutgers – New Brunswick is already uniquely positioned to lead." <https://nbchancellor.rutgers.edu/news-communications/big-ideas-submission-process>

¹²³ Carla Yanni, "The Geology Museum Reborn: A 21st-Century Science Museum in a Victorian Home, Unpublished Grant Application.," (January 31, 2019).

and practical Use Value of the site. It is particularly significant that with one single exception, these words only appear in this time period, an indication that the role of the Rutgers Geology Museum had shifted. Beginning in 2013, when a plan to repurpose the museum was reported within the sources, these words were used in discourse that refers numerous times to the significance of the Rutgers Geology Museum in how it is currently and actively used: “[Kathleen Scott] spoke of the unique value that the museum has for both the university and the community ... It’s a resource for people who can’t afford to go to the American[Museum of Natural History]...Having the museum remain open serves an important function, of furthering the university’s outreach to the local community...”¹²⁴ These statements of value do not mention Historic Value, but rather emphasize the Use Value of the Rutgers Geology Museum, demonstrating the site is not simply existing on Rutgers campus but is relevant to the university and the community. This acknowledgement of relevance serves to strengthen the site’s position, making it significant and valuable in the present in order to challenge the possible repurposing of the museum considered by Rutgers administration.

Statements that develop the site’s Use Value continue in the sources, however statements of Historic Value are incorporated, thus asserting the Use Value that the site represents while simultaneously employing the Historic Value to strengthen the site’s position. For example, *The Targum* editorial refers to the Rutgers Geology Museum as one of the most historic geological attractions in New Jersey and goes on to refer to the

¹²⁴ Jay Kaado, “Rutgers Geology Museum May Close After 141 Years,” *New Brunswick Today*, February 1, 2013, <https://newbrunswicktoday.com/article/rutgers-geology-museum-may-close-after-141-years>.

museum's great importance to the University community.¹²⁵ A Change.org petition for the Rutgers Geology Museum states, "The new management team should be applauded for transforming the museum into the 21st century while still maintaining its historical charm."¹²⁶ Finally, the Rutgers Geology Museum's website states, "As we enter the 21st century, the museum continues to educate students and the public about science and does so in a historically evocative Victorian setting."¹²⁷ All of these statements link the active and current use of the Rutgers Geology Museum within the Rutgers community to the irreplaceable qualities of the site – Historic and Use Value are employed together to demonstrate the site's worth.

Expressions of Value Not Included in the Lexicon

While the lexicon organizes and expands the data during this time period, it also filters out the multi-disciplinary aspects of the Use Value of the Rutgers Geology Museum reflected in various experiences at the site. Several of the sources contain statements referencing student work-study experiences,¹²⁸ the use of the site by professors and students from various institutions and levels of education¹²⁹ as well as how students and faculty are involved in various operations and activities at the Rutgers Geology

¹²⁵ Editorial, "Geology Museum Valuable to Community," *The Daily Targum*, February 18, 2013, <http://www.dailytargum.com/article/2013/02/geology-museum-valuable-to-community>.

¹²⁶ "Robert Barchi, President of Rutgers University & VP Richard Edwards: Do Not Close the Rutgers Geology Museum!," non-profit petition website, *Change.Org* (blog), February 17, 2013, https://www.change.org/p/robert-barchi-president-of-rutgers-university-vp-richard-edwards-do-not-close-the-rutgers-geology-museum?fbclid=IwAR1054JzW9q2AnJXoZEIlgD-gbBrulvly9QID1BDt_r5roTg7wkyDVPCWNEs.

¹²⁷ "Rutgers Geology Museum Welcome/History," *Rutgers Geology Museum Website* (blog), n.d., <https://geologymuseum.rutgers.edu>.

¹²⁸ Sabrina Szeinbaum, "Rutgers Geology Museum to Remain Fixture on Campus," *The Daily Targum*, September 4, 2013.

¹²⁹ "Robert Barchi, President of Rutgers University & VP Richard Edwards: Do Not Close the Rutgers Geology Museum!"

Museum.¹³⁰ These statements stress the diverse Use Value that the site represents and how it augments student education at Rutgers, yet they were not included in the second analysis. Therefore, in order to gain a more nuanced understanding of how language functions to articulate the value of the site, it is necessary to consider how statements of value found in the sources yet filtered out by the lexicon contribute to the site's heritage value.

How Language Functions to Express Value

A unique aspect of the discourse within this time period is that many expressions of value support both Historic and Use Value simultaneously, and the repercussions of this discourse can then be observed in later discourse. Expressions of value in this time period begin with statements advocating against a repurposing of the museum in 2013. The resulting discourse found on the Save the Rutgers Geology Museum Facebook page and the Change.org petition has repercussions, observable in President Robert Barchi's reference to this discourse in his March 19, 2013 letter in which he thanks supporters for their messages, stating, "We hope that by preserving both Geology Hall and the Geology Museum's historic nature, while also modernizing them in accordance with ADA regulations, they will be a showcase for student educational outreach at Rutgers."¹³¹ Discourse in this time period continues to endorse the site's significant presence in combining Use and Historic Values together to reinforce and expand the Rutgers Geology

¹³⁰ Yanni, "The Geology Museum Reborn: A 21st-Century Science Museum in a Victorian Home, Unpublished Grant Application."

¹³¹ "Future of the Museum," Social Media, *Save the Rutgers Geology Museum Facebook* (blog), March 19, 2013, <https://www.facebook.com/notes/rutgers-geology-museum/future-of-the-museum/10151564291197008/>.

Museum's role and purpose in the university and the community. A phrase taken from the 2019 Big Idea Proposal develops this combination, drawing attention to the Rutgers Geology Museum's unique position: "It is our intent to create a modern outreach and education center housed in this historic 19th-century building that holds and displays important scientific artifacts and preserves Rutgers history."¹³² These are just two examples from this time period where the Use and Historic Values of the museum coalesce to result in a more powerful and valid foundation for its continued existence.

Discourse related to the Rutgers Geology Museum was prolific during this time period. While this abundance is partially affected by the concomitant changes in modes of communication and dissemination of information throughout the time periods included in this analysis, the substantial discourse also reflects the earnest expressions of value articulated in response to events related to the site throughout this period, namely, the perceived threat of repurposing the museum by Rutgers administration that was discussed in the sources from this time period. This threat resulted in community reaction manifested in several online outlets such as Change.org and Facebook found within the sources studied in this period. Values are deployed through the language used in the sources, ascribing the site with a new type of heritage value comprised of both Historic and Use Value that served a very specific purpose: the language in this time period constitutes and conveys information and knowledge on the Rutgers Geology Museum in order to affirm and reinforce the site's continued presence at Rutgers University.

¹³² Yanni, "The Geology Museum Reborn: A 21st-Century Science Museum in a Victorian Home, Unpublished Grant Application."

Archaeologist Ian Hodder stated, “We keep and protect only a selection of what is past. We preserve what is of value to us.”¹³³ This assertion can be observed in this time period, when language is not only used to articulate how the Rutgers Geology Museum is valued but is also deployed as a method to preserve and protect a resource. The sources studied in this time period document how the mobilization of heritage became the preservation tool that brought about observable results.

¹³³ Ian Hodder, “From Ownership AND Descent to Justice AND Well-Being,” *Anthropological Quarterly* 83, no. 4 (Fall 2010): 863.

Chapter 7 - Conclusion

This thesis studies how the heritage value of the Rutgers Geology Museum has changed over time by critically examining how people have ascribed value to the site at specific moments in its history through discourse. By studying the words that comprise the Historic and Use Value of the site over time as well as the people who articulated these words, the social and environmental factors of the constituent parts of heritage value have been identified.

This analysis provides documentation of the trajectory of the Rutgers Geology Museum's heritage value, revealing how this example of built campus heritage has been affected by changes in national policy, functional requirements, and institutional mission. The results show that while Use Value was essential in 1872 in order to justify the expense of erecting the building, deployment of Use Value decreased in the discourse throughout 1972-3, as a national heritage language emerged and achieved an authoritative status within the heritage history of the site. Employment of Use Value re-emerges in 2013-2019, becoming essential again to justify the expense of keeping the building. While a measure of Historic Value was recognized in the site's infancy in 1872, with the monumental expense and physical presence of the new building, this Historic Value was magnified in 1972-3, in the process of adopting and replicating the national historic status of the Rutgers Geology Museum. This same Historic Value then became as equally important as the Use Value of the site when both were deployed to protect the site in 2013-2019.

Additionally, through CDA, this thesis provided insight into how language functioned to structure the social institutions that influenced the Rutgers Geology Museum throughout its history. While the lexicon organized the data, its effects were varied. This demonstrated that while typologies provide a starting point and facilitate discussion,¹³⁴ they do not resolve the fact that heritage value is articulated in numerous ways and remains a subjective exercise, suggesting that in this area, scientific quantification of value may not always expand knowledge and may in fact restrict and narrow the results. This illustrates the need for comprehensive study of heritage value that considers all aspects of the data for heritage sites, objects or practices. This research attempts such a comprehensive approach. Riegl's Historic and Use Value categories form the basis of initial analysis because they are congruent with the Rutgers Geology Museum past and current state, but this analysis also provides a more in-depth examination considering all of the expressions of value.

This analysis has illuminated several things. First, the people involved in building the heritage history of the Rutgers Geology Museum have been connected to the events and actions that have affected the site throughout its history. Second, value as an analytical construct that determines heritage significance and is used as a tool by people to make the heritage preservation determinations that allowed this site to attain and retain value has been identified. Finally, the strategic aspects of campus architecture that have been consciously created to serve and symbolize the university's purpose, presence and heritage have been highlighted to reveal the heritage value of the Rutgers Geology

¹³⁴ Mason, "Assessing Values in Conservation Planning: Methodological Issues and Choices."

Museum as a carefully crafted part of the university's image. This analysis provides evidence of the articulation of heritage value of the Rutgers Geology Museum over time, revealing the people and processes involved in the formation of the heritage value of the site. Furthermore, this analysis reveals how value was applied, providing a comprehensive picture of the heritage value of the Rutgers Geology Museum at three points in time, allowing changes in heritage value to be observed and analyzed on a continuum. The heritage value of this particular site as it has been understood and articulated through time is now well-defined, demonstrating that this was not a singular event but rather is comprised of constituent parts and it is through these constituent parts that value is circulated.

Appendix A

	Historic Value	Use Value
Folder: Board of Trustees, 1870		
Letter to Trustees from Faculty – 20 June 1870	<p>“to carry out these important designs and thus to enlarge and multiply the means of education of the College seems to the faculty a fit inauguration of the work of the second century of the College History”</p>	<p>“the full equipment of this department will involve the necessity of providing a room of considerable dimensions”</p> <p>“If it is proposed to erect a building which would suitably accommodate the museum”</p> <p>“must commend itself to friend and benefactors of the college an appropriate use to devote a portion of funds which their liberality has placed at your disposal”</p>
Minutes from Special Meeting – 8 July 1870 Committee appointed to recommend proper way to dispose of the funds of the new endowment		<p>“that a new building be erected between the College and the President’s house the first story of which shall be used for a Chemical Laboratory and two of the other stories for Museum and Cabinets – the whole to be called Geological Hall and to cost not more than \$40,000”</p>
Letter resolving to procure plans for Geological Hall and Chapel – not dated		<p>“Resolved that the Committee on Properties be requested to procure plans for the erection of a Geological Hall and College Chapel to be laid before the Board at its next meeting and that the President be requested to solicit additional subscriptions for the purpose of completing said buildings in addition to the other improvements (illegible)”</p>

Folder: Board of Trustees 1871		
Minutes - New Business – 7Feb1871		<p>“Resolved that the plan for a Geolog. Hall presented by the Committee in Property be approved and adopted.”</p> <p>“Resolved that the Hall be placed between the College Building and Van Nest Hall”</p> <p>“Resolved that the question whether the front shall be in line with that of the College building or not be referred to the Com with power”</p> <p>“Resolved that the Com. on Properties be authorized and directed to make contracts and pursue (not sure, looks like persecute) the work of erecting the Geol. Hall at once.”</p>
Minutes – 20/21June1871		<p>“Resolved that the subject of building the Geol. Hall of stone be referred with power to the Comm on Finance & Properties”</p> <p>“Resolved that it is the opinion of this Board is that the building be of stone if practicable.”</p>
Folder: Board of Trustees 1872		
Minutes – New Business - 18June1872	<p>“Resolved that the Board of Trustees expresses its high appreciation of the taste and skill of Mr. Henry J. Hardenbergh, the architect of this Geological Hall, and of</p>	

	the fidelity with which he has superintended its construction.”	
Cook Papers: Rutgers College Folder, Box 17 List of needs of Geology Museum		<p>“For furnishing & preparing the Geological Hall for its uses”</p> <p>“cases are needed in which to arrange the collections...”</p> <p>“It will take a year probably to arrange the specimens in the wall cases...”</p> <p>“Lowest satisfactory and responsible bid that we have is to construct 13 cases...”</p> <p>“The numerous and large windows in the hall makes the light unpleasantly glaring, and the rooms uncomfortably warm in summer. They should have blinds in the Museum, and close shutters in the rooms of the chemical department.”</p> <p>“...some nice balances are needed... Becker & Sons of New York make the best in use...”</p>
Rutgers Faculty Minutes – 31May1872	<p>“It was Resolved that the President and Faculty celebrate the opening of the new Geological Hall by a reception to be given on Wednesday evening of Commencement week”</p> <p>“Resolved that the committee on the</p>	

	<p>opening exercises of the Hall be empowered to make all necessary arrangements for carrying out these resolutions, and that for this purpose they have power to appoint sub-committees from the Faculty and Senior Class.”</p>	
<p>Targum – April 1871</p>	<p>“It may have been a source of wonder to many who attended the Centennial Exhibition, and hard the report of the committee on ‘begging,’ why nothing has been started in the way of a building to show the many who were not attendant at that interesting meeting of Alumni and friends, how generously our patrons and trustees have inserted their hands in their money-bags and contributed to the extension of our already well-known College. Why no building has been commenced <i>is</i> and <i>will</i> remain a mystery. But we are all the more glad, as it was expected, to hear that the site and plans of a fine Geological Hall have been decided</p>	

	<p>upon. The site is directly between the College and Van Nest Hall, where, if it is as expected, a fine imposing building will be erected which will be a credit to the College and an ornament to the City.”</p> <p>“The building is to be one hundred feet long and forty feet wide, being about the dimensions of the main building. It will be three stories high; the ceiling of the upper story will be about twenty-five feet in height, to accommodate some much larger and extensive cases of birds and other curiosities than are now in our small Museum in Van Nest Hall. This extra height in the upper story will raise the roof of the building about twenty feet higher than that of the building on its left hand, affording a fine look-out upon the country, and also presenting a pleasant view from a distance.”</p>	
Targum – June 1871, listed under “Calendar of Commencement Week”	June 20 – Tuesday, 3:30 P.M. Laying the Corner Stone of Geological Hall	

Targum – February 1872	“The Geological Hall is fast nearing completion, and presents a fine architectural appearance.”	
Targum – March 1872 Editorial/article reporting that a College Chapel will be built, commenting negatively on Geological Hall architecture and hoping that the Chapel will not be the same	<p>“The Geological Hall, though a source of congratulation in itself, cannot be considered an architectural success. Not being adept in this science, we cannot show how near windows should be placed to harmonize with the general effect, nor prove that a building needs some relief to make it pleasing to the eye; but we do raise the question, whether the builder intended that it should be as great a curiosity without as within.”</p> <p>“There is another consideration that should have some weight in the erection of College buildings. To be well educated is the paramount object of our desires. Every expedient is employed to train the mind to think with clearness, celerity and correctness. Should not our eye receive some cultivation? To</p>	

	<p>be sure we have the honored portraits of our distinguished Professors of former time, of which and of whom we are justly proud; but is this all sufficient to educate the eye? Does not our Scientific Department demand more than this? Especially those who as architects and engineers intend devoting themselves to construction. Our buildings should be gems of architecture, and each a perfect model. The style, the type of any order best adapted to the wants of the case, but let it be pure.”</p> <p>“To this end we would beg the building committee to award premiums to the best plans, and invite the competition of the most celebrated architects. For in this way alone are we sure of combining useful and ornamental. Let our Chapel be all that fancy can paint or heart desire.”</p>	
<p>Targum – October 1872 Article on the new academic year, highlighting hopefulness/conviction of faculty and students</p>		<p>“And now, friends and well wishers, you can do much to help us. We need now: 2. The Geological Hall must be furnished with cases for the</p>

		specimens. A case will cost from \$80 to \$90. How many of our friends will pledge themselves to furnish each a case?"
Scarlet Letter (yearbook) – 1872 Editorial	“The Geological Hall now stands proudly forth in noble proportions, with its firm stone walls, resolved not to bow without a struggle before the withering hand of Time. And near by will soon arise our promised Memorial Chapel, which will give additional ornament to our campus and its surroundings.”	
Document	Historic Value	Use Value
National Register of Historic Places Nomination Form – 1972 Very little statements of value – listed as a district, so most statements pertain to whole campus and do not specifically name RUGM	“Due to a mistake concerning the year of the original charter, the college’s centennial was celebrated in 1870. This year saw a fund drive among the alumni and friends of the college. \$63,000 of this money was allocated to the construction of this building. Henry Hardenbergh designed it and it is possible that this was his first complete work. The building contained lecture rooms for chemistry, geology	

	<p>and natural science. A museum occupied the upper floor and in the basement was located the armory of the military department. The building houses the geology department and the <u>Rutgers Alumni Magazine</u> asserts that it is the oldest continuously used department building in the United States.”</p>	
<p>Rutgers Newsletter – 1972April24</p>	<p>“HALLOWED GROUND – A six-acre part of Queens Campus, the cradle of Rutgers University, is being considered as a possible historic site. If the application is approved, it will be listed in the National Register of Historic Places. The Register is a division of the National Park Service of the U.S. Department of the Interior. Old Queens, at bottom, was begun in 1809 and is the oldest and best-known building on the campus. The photo was taken in 1862. Michael C. Barr, a 1969 honors graduate of Rutgers College, researched and prepared the nomination on behalf</p>	

	<p>of the Rutgers Alumni Association. Assisting him as an architectural consultant was Dr. Edward B. Wilkens, the University's campus planner. Also shown are an historic marker on the campus, the Schanck Observatory and the Greek original from which it was copied, Kirkpatrick Chapel and Winants Hall."</p>	
<p>Rutgers Alumni Magazine – 1972 Nov/Dec</p> <p>All statements of value refer to entire district, not just RUGM</p>	<p>"In Queen's Campus, the six-acre plot held hallowed by nearly every alumnus since Matthew Leydt, Class of 1774, Rutgers boasts a proud link with Colonial times. For decades, the delicate problem of preserving the six buildings standing thereon has tested both the expertise and pocketbook of the buildings and grounds department. But in this one area, it would appear, heritage always reigned supreme over practicality. In good times and bad, there was always a way."</p> <p>"As a governmentally-recognized historic site, the campus would not only gain</p>	

	<p>national attention but would be protected from either federal or state projects that may have an 'adverse effect,' i.e. destruction or alteration of the register listing as well as alteration or destruction of its environment."</p> <p>"These buildings and the land on which they're situated are what hopefully will make up the Queen's Campus Historic District. Perhaps this article has enlightened its readers as to the early history of Rutgers and its beautiful old buildings, and it will kindle an interest in preserving these structures of which all alumni can be justifiably proud. If interest is evoked, perhaps the remainder of the original buildings can be saved from the fate that befell the President's House."</p>	
<p>Board of Governors – 1973Sept14 Meeting Minutes</p> <p>Simple report of the designation *no statement of value*</p>	<p>"The Secretary reported that the edition of the Federal Register, dated August 7, 1973, formally announces that Queen's Campus of Rutgers University has</p>	

	<p>been entered in the National Register of Historic Places. Queen's Campus has been designated as that area bounded by College Avenue, George, Hamilton and Somerset Streets."</p>	
<p>Targum – 1973Sept17</p> <p>Statements of value very scarce in the article – it is simply reporting the designation.</p>	<p>"The original Queens Campus has been designated a historic site by the U.S. Department of the Interior"</p>	
<p>The Home News – 1973Sept30</p>	<p>"However, 150 years have passed, the once obscure college is now a state university, and official tribute has been paid to the ground where the unpromising college got its start. Rutgers University's Queens Campus, a six-acre site of the university's oldest buildings and lands, has been designated an historic site by the U.S. Department of the Interior."</p> <p>"The next construction on campus took place for the college's centennial when Geology Hall was built. It is asserted to be the oldest continually used department building in the country, for the geology department</p>	<p>"A new course of study for agriculture and the mechanic arts was established in 1864 and a new building erected two years later to house the chemistry, agricultural chemistry, geology and general natural science departments."</p>

	still occupies the building.”	
Rutgers Alumni Magazine – Homecoming 1974	<p>“The geology department is the oldest in the United States with continuous instruction and Dr. Murray over and over again explained that the museum was being run on a shoestring. As I left his office, the door handle pulled off in my hand. ‘You’ll want to include that in your article,’ he said.”</p>	<p>“‘With the exception of football games, the Geology Museum Open House of 1970 drew the largest single audience to the Rutgers campus,’ states Dr. Raymond Murray, chairman of the geology department. That year an estimated 20,000 people attended, ‘Mostly to see the moon rocks we had on display,’ he explains. ‘But we’re averaging perhaps eight to ten thousand.’”</p> <p>“‘It’s not unusual to find people in the museum at almost any time,’ Dr. Murray said...”</p> <p>“‘In addition to those who attend Open House, there are perhaps 40,000 visitors and between 350 and 400 school classes that annually visit the museum,’ he said. ‘I would estimate that we probably have the third largest attendance of any geological museum in the state.’”</p>
Document	Historic Value	Use Value
RU Geology Museum Strategic plan - 2018	<p>COMBINATION OF USE/HISTORIC</p> <p>“In order to achieve this vision, there are many steps and transformations that need to occur, but the end goal will be a</p>	<p>“The Rutgers University Geology Museum (RUGM) contains a glittering array of natural history related artifacts and hosts a wide assortment of public outreach programs for thousands of visitors each year. K-12</p>

	<p>completely renovated and accessible Victorian-style museum. The space will be fully functional to host large receptions, birthday parties, group tours, symposiums, school groups, special events, and educational activities, but designed in a way that preserves and highlights the Victorian-style architecture and features originally installed in the Museum.</p> <p>Renovations will allow the Museum to be utilized year-round and provide further classroom space for instruction.”</p> <p>“Throughout its history, the Rutgers Geology Museum has acted as a wonderful resource as a period-piece Victorian museum”</p> <p>“Part of the uniqueness and charm of the Rutgers Geology Museum is that the museum and its collections are still housed in the original space that was built in the late 1800s for the</p>	<p>students and educators, university undergraduate and graduate students, Boy Scouts, Girl Scouts, and New Jersey families alike leave the Museum captivated by all that it has to offer, yet a significant portion of the Rutgers and New Jersey communities are still unaware of all the free and low-cost educational programs and activities the Museum offers. Significant strides have been made in recent years to revitalize the public image of the Museum by creating new educational programming for all ages; however, the Museum remains an underutilized resource. With the investment of time and resources, the Rutgers Geology Museum can become a leading center for outreach and informal education within the University and New Jersey.”</p> <p>“This document outlines a strategic plan for the Rutgers Geology Museum to build on these programs and enhance the role of the Geology Museum in the context of the SAS strategic plan. The SAS strategic plan identifies three areas where the Geology Museum can contribute”</p> <p>“Rutgers Geology Museum Mission</p> <p>The Rutgers University Geology Museum enhances university teaching and</p>
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	<p>mineralogical, paleontological, and anthropologic material that was collected by some of Rutgers' original and most prestigious natural history professors, including George H. Cook and Lewis C. Beck, both of whom have a campus and a building on campus named after them, respectively. The building also retains much of its original Victorian details, which along with the Kirkpatrick Chapel, were built by famed architect Henry J. Hardenbergh, and efforts should be made to preserve these historic features.”</p> <p>“Restoration of the historic features of the Museum will complement the restoration efforts on other parts of the Old Queens campus and enhance the outreach and teaching programs. This space can become a highly attractive part of the Old Queens campus and a vital part of Rutgers' outreach and undergraduate</p>	<p>outreach programs through its presentations of Natural History and Geology related materials for the education and enjoyment of our students and the general public. Through its exhibits, collections, public lectures, website, tours and other programs, the Museum showcases university research and provides our undergraduate students, members of the University community, K-12 students and teachers, and the general public with unique learning experiences that enhance their understanding of the natural world. The Museum serves as the focal point for bringing together faculty, staff, students, and the community members with common interests in developing our appreciation and understanding of the natural environment and our place in that world.”</p> <p>“Creating opportunities to forge a strong community through our diverse public programming, student interactions, museum internships, and collaborations within and outside of Rutgers.”</p> <p>“Expand the role of the Museum in university education and increase internship opportunities that will enhance students’</p>
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	<p>education programs, but in order to do so, the Museum will need additional space for an up-to-date classroom, installation of an elevator, and restoration of key architectural features.”</p> <p>“Another potential way to bring more national attention for the RUGM would be to have it listed as a National Historic Landmark (NHL) with the National Park Service through the United States government.”</p> <p>“As the first Geology Museum in the United States (Neitzke-Adamo et al., In press), the Museum has enough historic significance on its own to be listed as its own NHL.”</p>	<p>learning and professional experiences.”</p> <p>“Establish the Museum as a leading center at Rutgers University and within New Jersey to disseminate cutting-edge research to the public.”</p> <p>“Installation of an elevator would bring the Museum up to ADA design standards and bring the building up to federal building codes. By making the Museum assessable to all, it would allow a larger audience to visit during tours and special events.”</p> <p>“Over the last 8 years, the museum staff has worked hard to develop new and meaningful educational programming that will appeal to a large audience and attract increasing numbers of visitors each year.”</p> <p>“With Rutgers being one of the nation’s most historically significant and diverse Universities, as well as a leader in global research, the Museum is uniquely situated to bring all of these resources together to provide meaningful programming to our K-12, university, and New Jersey communities.”</p>
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<p>RU Geology Museum Incident Response Plan</p>		<p>“At the end of the day, the machine is locked in the Museum Store. The main door of the Museum is also locked, and the door and motion sensor alarms are set. At about 5pm, the exterior doors to Geology Hall are locked.”</p> <p>“If damage occurred when the Museum was closed and no employees were onsite, the Museum door alarm will go off to alert RUPD that someone is in the Museum. If anything is damaged, RUPD will assess the situation.”</p>
<p>Rutgers Geology Museum Website – 2019</p>	<p>COMBINATION USE/HISTORIC “As we enter the 21st century, the museum continues to educate students and the public about science and does so in a historically evocative Victorian setting.”</p>	<p>“The Rutgers Geology Museum is dedicated to educating the public through its exhibits, collections, public lectures, tours and other programs. We strive to provide a wide range of unique learning experiences that will enhance our visitors’ understanding of the natural world.”</p> <p>“The Rutgers Geology Museum enhances university teaching and outreach programs through its presentations of geological, mineralogical, paleontological and anthropologic materials for the education and enjoyment of its visitors.”</p> <p>“The Rutgers Geology Museum was founded in 1872 by State Geologist George H. Cook to exhibit the many</p>

		specimens collected by the New Jersey Geological Society, which he directed.”
Article in New Brunswick Today – 1Feb2013	“Aside from the contents within the museum building, it also adds architectural value to the historic university.”	<p>“In an interview, [Kathleen Scott] spoke of the unique value that the museum has for both the university and the local community. ‘I would like to see the museum continue. It’s part of the university’s outreach to the public,’ Scott told NewBrunswickToday.com. ‘It’s a resource for people who can’t afford to go to the American [Museum of Natural History] or the Liberty Science Center,’ she added.”</p> <p>“Scott added that having the museum remain open serves an important function, of furthering the university’s outreach to the local community, in particular future college students: ‘As an outreach unit, as a way of reaching out to children and to the community, I think it’s very important.’”</p> <p>“I would hope that [the administration] would see the museum as an asset for the university.”</p>
Targum – 2013Feb13		<p>“Lincoln Hollister, a retired Princeton University professor, said the University is eviscerating the museum, changing its use.”</p> <p>“The Rutgers Geology Museum, a geology and natural science-based</p>

		<p>museum, differentiates itself from other museums by focusing on local geology.”</p> <p>“I think it’s just nice for kids and families to come here and have fun, and look at everything and they get to learn also.”</p>
Targum – 2013Feb18	<p>“The museum was founded in 1872 and has since become one of the most historic geological attractions in New Jersey.”</p> <p>“While repurposing the museum might not be a bad idea, the relics are very valuable – not only to the University, but to the state as a whole – and therefore must be preserved in any future plans for the facility.”</p>	<p>“There are a lot of discrepancies about whether the museum will be repurposed, shut down or remain as is – and because of the geology museum’s great importance to the University community, we really hope that it’s the former.”</p> <p>“The museum takes up a lot of space and is not well-advertised – so many students are not aware of its existence, let alone the unique experience it offers.”</p> <p>“The museum is a significant fixture to our school. As soon as rumors began circulating of its impending closure, a Facebook page popped up entitled “Save the Rutgers Geology Museum,” garnering more than 400 likes in less than a week.”</p>
Targum – 2013Sep4	<p>“The Old Queens campus is home to the Rutgers Geology Museum, a historical treasure that has been standing since 1872.”</p> <p>COMBINATION USE/HISTORIC</p>	<p>“Selden said the museum serves as a recreational facility for students, and offers experience to a good number of work-study students.”</p>

	<p>“I love the geology museum and the history behind it and that locally, children and adults can see some amazing artifacts that you would never realize are right on the Rutgers campus in New Brunswick.”</p> <p>“Fleres believes the letter writing campaign successfully showed the administration that many cared deeply about the preservation of the museum.”</p> <p>“The thing about the Old Queens Campus in general is the fact that it is an architectural record of the change from natural philosophy to the arts and sciences.”</p>	
Targum – 2016Feb3		<p>“We have put a lot of effort in the last five to seven years trying to make the Geology Museum an outreach center for the community.”</p> <p>“It’s an honor because there are so many great museums around the country, (and) I’m happy we are listed among those other ones.”</p> <p>“I’ve been working since my freshman year, so I love it. I</p>

		love the mastodon and the mummy so I can't pick which one is my favorite,' said Janelle Hincapie, School of Arts and Sciences junior and museum employee."
Instagram – rutgersu – 2018Sep27	"Did you know that the Rutgers Geology Museum is the oldest geology museum in the nation? "Museums at the Forefront of the History and Philosophy of Geology: History Made, History in the Making," a book recently published by the Geological Society of America, has officially names @rugeomuseum as "America's First Geology Museum."	"On the second floor resides the Rutgers Geology Museum, nationally recognized for its outstanding collection of minerals, fossils, Indian relics and modern shells."
Facebook – Save the Rutgers Geology Museum – 2013Feb11		"The purpose of this page is to get support so the Rutgers Geology Museum in New Brunswick will not be closed by Rutgers. Help us save the museum by getting as many posts and likes as possible. Thanks!" Comments : "Please keep this awesome Museum open!!" "Understanding and Knowledge is found here, please DO NOT close the museum!!!"

Facebook – Save the Rutgers Geology Museum – 2013Feb12		<p>“This is a great article on the Geology Museum’s Open House in January. So much more than ‘just rocks’!”</p> <p>Comments: “Please do NOT close this wonderful institution!”</p>
Facebook – Federated Department of History at Rutgers University-Newark and NJIT via Save the Rutgers Geology Museum – 2013Feb13		<p>“This is an institution at Rutgers that shouldn’t be cut. It has AMAZING stuff there.</p>
Facebook – Save the Rutgers Geology Museum – 2013Feb17	<p>“Sign our petition to NOT close the Rutgers Geology Museum. Our museum is the first Geology Museum in USA, opening in 1872!”</p>	
Change.org petition to save the Rutgers Geology Museum – 2013Feb17		<p>“Robert Barchi, President of Rutgers University & VP Richard Edwards: Do not close the Rutgers Geology Museum!”</p> <p>“Better to read this excerpt from the email I received: ‘We can view the museum as a means of anchoring Rutgers in the NJ community. Interactions between universities and the states they are serving are paramount to their success in the communities. In other words teaching Rutgers students is not enough to anchor a university in a community, because it can offer so much more: education medium for children and adults, particularly on matters that</p>

		<p>can be difficult to grab fully (such as geological time). The museum should not be dismantled, and activities should be kept as in the past, or developed further as it used by students and community members. The new management team should be applauded for transforming the museum into the 21st century while still maintaining its historical charm. Bill Selden pointed out too, that for many years the GM has presented outstanding programs showcasing research at Rutgers and in particular in Earth Sciences. He writes: 'From the Rutgers Geology Faculty to Rutgers Alumnus Matthew Golembeck, the Chief scientist on NASA's Mars Rover mission, we the public have had the opportunity to see and hear directly from Rutgers scientists. Those of us with an intense interest in the Earth Sciences are thrilled to be able to ask questions and share in the excitement of discovery. The Geology Museum makes the academic programs accessible to us.'</p>
<p>Change.org petition to save the Rutgers Geology Museum – comments - 2013Feb17</p>	<p>"I am for the preservation of anything historical and also the way I remember RU when I attended."</p>	<p>"The earth sciences go far beyond being academic or intellectual exercises. They are primary in understanding who and what we are. They alter our view of ourselves and the world, even the universe we live in. We come</p>

		<p>away with a broader view, we come away enlightened..... and the purpose of a University is ??????”</p> <p>“The museum is such a great educational tool that helps children develop interest in geology, the earth and world around them.”</p> <p>“We've visited the RU Geology Museum on several occasions over the past several years and my children have attended and benefited from the educational events and field trips sponsored by the museum. These experiences have been invaluable for my home schooled children. We would be very sorry if this great educational resource were not available to the next generation of children who might otherwise not have access to hands on Geology. It would also be a shame, at a time when many in our society seem to fear or misunderstand the sciences, to reduce resources that bring understanding of the subject to the public.”</p> <p>“This museum inspired my son to want to pursue a geology degree at Rutgers in a few short years. Please keep the museum for other future students! (Who knows whom it may inspire?)”</p>
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	<p>“I am a citizen of NJ and I use this museum. Closing it will leave a gap in our understanding of NJ.”</p> <p>“I go here.”</p> <p>“This is a great museum and a real asset to Rutgers and the state of NJ. I have brought my own kids, scout troops, and other groups, and went there myself when a student at Rutgers. At a time when other universities are supporting and expanding their geology museums, why is Rutgers considering closing theirs? it makes no educational OR economic sense....”</p> <p>“KEEP the MUSEUM!”</p> <p>“As a teacher, I think that this museum affords an opportunity for the public to come and see the work that geologists do and to appreciate the nature of the geological sciences. One never knows how a child can be influenced by their experiences outside the classroom. Please maintain this museum and its activities.”</p> <p>“I am a Rutgers grad who used to go to the museum to study.”</p> <p>“Although I am not a geologist, I do teach Earth Science to high school</p>
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		<p>students. Geology is one of my first loves and a favorite area when visiting museums. I think it would be a shame for Rutgers to loose such a historical site.”</p> <p>“I bring students here every year to show the unique geology of New Jersey. To have so many displays of this type in one place provides a great learning experience. There is no place like this anywhere else in the state, please don't let it disappear.”</p> <p>“Primarily, I would like to thank all the staff and founders who have sustained the Rutgers Geology Museum and have given students of all ages memorable experiences and knowledge through the power of your efforts. I would be disappointed and feel a deficit in the academic resources we are provided at Rutgers if it closed down. The museum is an interesting place to visit and to take others, especially for the wide variety of students who attend the University. It is used by professors for assignments, by students to engage in interesting social outings and for visitors of Rutgers to relish in the campus's environment. Please keep the Rutgers Geology Museum up and running!”</p>
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	<p>“This museum is an excellent link to the community and improving scientific literacy among the populace. If we are to live sustainably on this planet, we need to understand how it works. Geology is the key to that understanding.”</p> <p>“The museum was leaning experience when I took my class on Dinosaurs. I also learnt a lot about the geological history of the Earth. The museum is way for the university to give back to the furthering the community knowledge. The internet while useful does not convey in a scale the museum with specimens does.”</p> <p>“No learning experience should be sacrificed! Take some money from the football program now that you will be getting Big 10 money!”</p> <p>“Each time I visit this museum it has always been a treat, learned something new every time!”</p> <p>“Geology is cool and important.”</p> <p>“We love this museum!! (My son especially!!)”</p> <p>“Rutgers student!”</p> <p>“I am a teacher in New Jersey and know the importance of</p>
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	<p>museums like this for future generations of students.”</p> <p>“Former Rutgers student and museum visitor”</p> <p>“I'm pretty sure our science team is still better than our football team.”</p> <p>“Geology is an important and basic science. It forms a base for our understanding of other sciences including environmental science which is exceedingly important today. Mineralogy is the basis for material science (another important subject today). I wish I was writing in support of expanding the museum instead of protecting it from closure.”</p> <p>“Museums are a source of knowledge and a fun way to spend a few hours.”</p> <p>“We need more educational resources, not fewer.”</p> <p>“The Geology Museum is a wonderful resource and has very accessible specimens for young and not so young visitors. The future job opportunities are to be found in the Earth Sciences!”</p> <p>“I am grad student at the Department of Earth and Planetary Science. When I saw the Museum at the first time, I was so impressed that our</p>
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	<p>university has such a great place! I am extremely proud of my department that we have an amazing opportunity to teach kids and involve them into Earth sciences. Besides, this place has a long history and great mineral/rock collection. It is the only chance for NJ young community to learn about the Earth, and I think it will be cruel to deprive them this opportunity.”</p> <p>“As a Rutgers alum, I think it is a valuable part of the Rutgers educational experience and a useful resource for the NJ community.”</p> <p>“I've worked at the Geology Museum for three years, and it is an amazing environment for children and adults alike. The outreach programs are great, and it would be a shame to end something that has been alive and growing for so long.”</p> <p>“This is important to me for several reasons: firstly I have a passion for learning about archaeology and geology and would like to work in this field after graduation. Secondly as someone who has personally raised over \$40,000 for the University in addition to paying tuition, I find it insulting that Rutgers would consider closing this learning resource. Not everything has</p>
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	<p>to be a big time money maker for the school and I know that this is the reason why higher ups are considering closing the Geology Museum down.”</p> <p>“This museum represents and demonstrates the significant contributions made to the studies of geology and the earth sciences. A comprehensive display of this knowledge and research in a historic locale accessible to nearby school children and the general public is a true treasure for the state of New Jersey. It must not close down!”</p> <p>“I love Rocks!”</p> <p>“I am an RU alum and an environmental educator. We must preserve this educational and historical landmark.”</p> <p>“This is a very important resource to our community. As a teacher and a mom, I feel the Rutgers Geology Museum provides valuable educational resources. As a Rutgers alumni, I feel it showcases the wonderful work Rutgers continues to perform in the science world.”</p> <p>“This site represents the significant research and contributions made to the studies of geology and the earth sciences for nearly 150</p>
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	<p>years. Our understanding of theories such as plate tectonics and continental drift is younger than that! A museum that helps us comprehend the natural world in which we live must not be allowed to close. Available to school children and the general public, this museum is a true treasure for New Jersey and the nation as a whole.”</p> <p>“This museum showcases local NJ geology, it is a unique resource that should remain open to the public. Any future donations to Rutgers from myself and my family is contingent upon maintaining academic standards and traditions embodied by the Rutgers Geology Museum”</p> <p>“We need to preserve our educational resources, not abandon them.”</p> <p>“The Geology Museum is an amazing place for children and adults to learn about our history, see cool rocks, minerals, a 2,400 year old mummy and a mastodon from Salem County. Grow this museum, do not close it. Thank you.”</p> <p>“I understand the importance of Earth Science education, particularly about geology. Closing the museum is a step</p>
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	<p>backwards, especially by a learning institution.”</p> <p>“Although I do not live in NJ, I am a science teacher who's curriculum includes earth science. It is very disheartening to hear that a university is reducing earth science related opportunities to the public.”</p> <p>“Sparking a child's interest ignites the rest of their life.”</p> <p>“Historic value, geology education, programs, collections”</p> <p>“I believe that it should be kept”</p> <p>“Rutgers is currently viewed as one step up from a commuter community college. Shutting down an academic research related museum further confirms this view.”</p> <p>“A great educational resource. Allows the community to interact with the university - provides students with an opportunity to interact with concepts that develop a deeper understanding. Everything in our world is connected to everything else, and nothing illustrates this better than the geological sciences. In order to better understand the changes that are occurring today, we need to look back and study the</p>
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		<p>past, make those connections, and hopefully look to the future”</p> <p>“I teach Geology and William Paterson University and I like sending students there to see the collection so they can relate what we learn in class”</p> <p>“NJ is soon going to adopt the new Next generation Science Standards, which will expand the study of Earth System Science. Removing one of the best collections that support Earth Science education is contrary to what the State Education Department is doing to create a scientifically-literate 21st century citizenry. There are many better ways to save on expenses. Look at the football program, for instance.”</p>
<p>Facebook – Rutgers Geology Museum – 2013March19 Letter from President Barchi</p>	<p>2. Rutgers is investigating the needed preservation of Geology Hall, one of the most prized architectural structures at Rutgers.</p> <p>COMBINATION USE & HISTORIC</p> <p>4. The university is sensitive to your concerns. We hope that by preserving both Geology Hall and the Geology Museum’s historic nature, while also</p>	<p>1. Thanks for your message concerning the Rutgers Geology Museum. Please be assured that the museum is NOT closing. There is no plan to do so.</p> <p>3. As part of our investigation, we are exploring the cost and extent of ADA accessibility modifications that would enable the Museum to expand its science outreach programs to public schools across central New Jersey. We would like to expand our outreach in the life and natural sciences, but to do so</p>

	<p>modernizing them in accordance with ADA regulations, they will be a showcase for student educational outreach at Rutgers. I should also point out that these changes will allow us to win some of the many grants for educational outreach to which we are excluded from applying because of the standards and conditions of the present space.</p> <p>Thanks again for writing and for your support of the Geology Museum.</p> <p>Sincerely,</p> <p>Robert L. Barchi</p>	<p>means we need to have a space that accommodates individuals with physical disabilities. Our bus will continue to operate as it has, and should the museum have to be closed in order to carry out the restoration, it would be closed only temporarily.</p>
<p>Facebook – Save the Rutgers Geology Museum – 2013May29</p>		<p>“Great news!! It looks like Rutgers is serious about restoring the Museum to something much closer to its 19th century appearance. That is wonderful! Plans are already underway to explore the restoration possibilities, and at the University there is a generally up-beat feeling about strengthening the Geology Museum. Essentially, the outcry caused by the threat brought understanding the new administration. I think the best way to proceed is to continue with positive</p>

		<p>letters urging the restoration and to keep an eye on the University's actions. It is up to us to keep tabs on Rutgers and insist it do the right thing."</p>
<p>Facebook – Save the Rutgers Geology Museum – 2013June4</p>		<p>"Some of you have asked if we are going to close this page. No we are not. We have over 550 people on board who support the museum. We will continue to post updates as they come in and help promote their activities. If you visit this summer, take photos and post them here."</p>
<p>Preserving the Past...Building the Future RU booklet - 2016</p>	<p>"Our 250 year history can be told through the lens of our buildings."</p> <p>"Rutgers and its physical structures are an integral part of New Jersey's rich history...Many designated historical sites and landmarks are now our sites and landmarks, and we take great pride in caring for them and preserving them for generations to come."</p> <p>"Rutgers' Geological Hall is the oldest continuously operating geology hall in the nation."</p>	<p>COMBINATION USE & HISTORIC</p> <p>"Regardless of your location, these physical structures tell the story of our genesis as a small colonial college, and our impressive journey toward excellence, becoming one of the largest and most diverse institutions of higher education in the nation, and continuing to advance in academic and research excellence and service."</p> <p>"Geological Hall was constructed to house the Geology Museum, Chemistry and Physics Departments, and Military Science."</p> <p>"Today the Rutgers Geology Museum is nationally recognized for its outstanding collection of minerals, fossils,</p>

	<p>COMBINATION USE & HISTORIC</p> <p>“The buildings highlighted in this publication not only recount our history, but also the history of the vibrant cities around which we grew as a university. These cities – Newark, Camden, New Brunswick – are the gateway to our future and the link to our past. There is immense responsibility in the stewardship of these campuses, and we are proud to be a part of it.”</p>	<p>Native American relics, and modern shells.”</p>
<p>Big Idea Proposal 31Jan2019</p>	<p>“Rutgers is home to the oldest geology museum in the United States, a unique cultural, historical, and scientific resource. It is irreplaceable.”</p> <p>BOTH HIST. & USE VALUE: It is our intent to create a modern outreach and education center housed in this historic 19th-century building that holds and displays important scientific artifacts and preserve Rutgers history.</p>	<p>“But even with these disadvantages the geology Museum has been able to maintain its relevance serving ten thousands visitors every year, connecting an active community of geology professionals and enthusiasts, and exposing new generations to topics and concepts in the Earth Sciences, Natural History and related fields.”</p> <p>The space would be fully functional to host lectures, large receptions, birthday parties, group tours, symposiums, school groups, special events, educational activities, but designed in a way to preserve the nineteenth-century flair.</p>

	<p>Much of the charm of the Rutgers Geology Museum is that the institution and its collections are housed in the original space that was built in the late 1800's for the mineralogical, paleontological and anthropologic material that was collected by some of Rutgers University's original and most prestigious natural history professors.</p> <p>The Geology Museum is a work of art. It deserves to be preserved and celebrated as such;</p> <p>BOTH HIST. & USE VALUE: Restoration of the historic features of the museum will complement the restoration efforts on other parts of the Old Queens campus, and enhance its outreach and teaching programs. This space can become an attractive tourist destination, and a way of connecting NJ citizen to the history of its university.</p>	<p>Renovations would allow the museum to be utilized year-round and provide further classroom space for instruction.</p> <p>...the museum could become a leading center for outreach and informal education within the University and New Jersey.</p> <p>The building and the collections together form a cultural resource unlike any other.</p> <p>...our request is to save something important that is already here, something that needs investment and that is part of our history. We will make the Geology museum into the 21st century education center that the Garden State desperately needs.</p> <p>Even today faculty members from multiple departments utilize the Geology Museum as a home to their own samples and collections.</p> <p>Today the museum graduate and undergraduate students assist the museum staff with exhibit design and other museum activities, providing professional development experience for the next generation of educators and researchers.</p>
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	<p>We have the authentic structure, the prime location, and the historic value. We are the stewards of a geology museum of national importance. It may not seem immediately obvious, but this quaint historic building was on the cutting-edge of science and education in its heyday.</p> <p>The Geology Museum “provides value to the research community as a means to document the past, a repository of reference material, and a center for disseminating current research to the public through hands-on education.”</p> <p>The Rutgers Geology Museum is an outstandingly preserved monument to the educational system that supported early geological research and development in the US.</p> <p>The museum is the steward of many important artifacts related to New Jersey’s history,</p>	<p>The Museum already serves the instructional needs of the state’s citizens directly</p> <p>The museum already facilitates cutting-edge research that is directly linked to the environmental, social, and cultural wellbeing of the state. We are the owners of fossilized dinosaur footprints and the mastodon, thus the museum’s displays are inextricable from the state’s cultural and environmental resources. We are a part of the state’s history.</p> <p>The museum is an interdisciplinary space, where education and research are melded together.</p>
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	<p>geology, and anthropology.</p> <p>Rutgers is justifiably proud of its long history (look at the “Revolutionary” advertising campaign) and yet right here on the campus is a resource that could celebrate that long history (and specifically the land grant aspect of that history) in a spectacular fashion.</p>	
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Appendix B

Lexicon

Keyword	1872	1973	2018	Total Times Used
Historic (historically)	1	5	38	44
Resource			18	18
Outreach			18	18
Important (importance)	1		15	16
Preserve		2	14	16
Use	4	2	5	11
Unique			9	9
Enhance			8	8
Oldest		5	3	8
Opportunity			8	8
Value (valuable)			7	7
Need/Necessary/Necessity	5		2	7
Proud	1	2	4	7
Original		2	4	6
Significant			5	5
Fine	4			4
TOTAL	16	18	158	192

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