As we approach the Society of American Military Engineer’s centennial in 2020, it seems a good time to look back at the architecture and planning that made many of the military’s installations enjoyable places for members, workers and families to inhabit. This article is the first of seven that will run in the SAME Architectural Practice Committee journal from now until the end of 2020. Please enjoy the tour through the history and impact of military architecture as well as those that made it possible.

Fort Monroe, Virginia (A Gift from the French).

Most people know that the French helped the former colonies during the United States (US) Revolution. What you may not know is that some of that assistance remained in the US after the war and helped shape our early military installations.

French General Baron Simon Bernard (28 April 1779 – 5 November 1839) was a French general of engineers. Born in Dole, Simon Bernard was educated at the École polytechnique, graduating as second in the promotion of 1799 and entered the army in the corps of engineers ¹. After being involved in the works to the Port of Antwerp, Bernard served (1809–1812) as aide-de-camp to Napoléon. After Napoléon’s first abdication he rallied to the emperor and took part in the battle of Waterloo in 1815. After the emperor’s second abdication he was banished from France and, refusing an offer for employment from czar Alexander I of Russia, he emigrated to the (US) ².

In the US he was made an assistant engineer with the rank and pay of a brigadier-general of engineers on November 16, 1816. He designed a number of extensive forts for the Army, notably Fort Monroe and Fort Wool in Virginia, Fort Adams in Newport, RI, Fort Morgan in Alabama, and around New York, and did a large amount of the civil engineering connected with the Chesapeake and Ohio

Inside

SAME announces new Military Architecture Award 6
Architect’s Photography Corner 7
HABS / HAER / HALS 8

□ continued on page 10
David Packard, R.A, PMP, FSAME
SAME APC Chair

My first full-time job in architecture came as a by-product of a summer gig with the Delaware Summer Survey of the Historic American Engineering Record (HAER) in 1976, just after completing my undergraduate studies. You can read more about that experience elsewhere in this publication but, suffice to say, the experience left indelible mark on me. I had never really been exposed to historic preservation in a very formal way. Sure, I had seen buildings threatened in urban environments. My first memory of a significant threat was a photo essay by an upperclassman in architecture school at the University of Nebraska. His stark black and white images of the Omaha National Bank Building, a Stanford White building (built 1888-1890) in downtown Omaha, stripped to the bone, really touched my heart. Eventually, I parlayed that summer experience into a position as an architectural historian with the Midwest Regional Office of the National Park Service (NPS) in Omaha. I really loved that job and embraced the principles of preservation technology and the processes that accompanied them. The Historic Preservation Act of 1966 had charged the Secretary of Interior with the development of strict preservation standards which had never existed. In those early years, the NPS struggled to undo years of misapplied construction methods and preservation philosophies. My traditional architectural education had not prepared me for the knowledge required to support the technical work I was doing but, like all college experiences, it taught me to learn and the NPS was the right place to do it. During the next few years, I immersed myself in all things historic preservation. Our ten-state area provided me with a wealth of learning opportunities with historic landmarks and structures in parks and communities throughout the Midwest (including some of my favorites, the lighthouses of the Great Lakes). An underlying mantra was, if I can learn how to make an ancient structure last, I might be able to succeed in doing the same with a modern structure. To this day, I apply many of the basic tenets of preservation to building design and construction details in new projects.

I left the NPS after finding that none of my direct supervisors were registered architects in the State of Nebraska (that is a story for another time) in order to pursue my goal of professional licensure. Not long after, I leveraged my back background into an assistantship with a professor teaching historic preservation while attending graduate school at the University of Minnesota. Historic preservation was beginning to become an integral part of architectural studies and the redevelopment of industrial cities was becoming more popular. I returned to Omaha and became involved in the local preservation organization, Landmarks, Inc., as a member of the Board and chair of a response committee, “The Rescue Squad”. The organization was primarily an advocacy group of citizens who valued the historic fabric of the city and for a few years we worked to bring awareness of the value of historic structures to a community in the throes of urban decay and abandonment. The central business district suffered loss of its vitality as suburban shopping malls displaced one after another of retail stores and commercial businesses. The ultimate loss came in 1989 when the largest National Historic District in the country was demolished to make way for a suburban business campus. Preservationists were in shock but helpless in the face of a private corporate venture which proceeded with the backing of political leaders who were desperate to redevelop the downtown and riverfront. I left Landmarks, Inc. in frustration.

Just before that loss, I was offered a position with the U.S. Army Corps of Engineers, Omaha District. Interestingly enough, I found myself involved in the design of new structures, many of which were surrounded by ancient cavalry and WWII vintage structures. The diversity of work executed by the Corps never ceases to amaze me. I found myself involved in the Base Realignment and Closure (BRAC) process starting in 1988. Projects included the movement of the 6th Army from San Francisco to Fort Carson, Colorado with the imminent closure and disposal of the Presidio of San Francisco and the disposal of the historic Fort Des Moines, site of the first black officers training program during WWI and where women first began to train through the establishment of the Women’s Army Corps in 1942. As a Federal undertaking, both closures required rigorous compliance with requirements of the National Historic Preservation Act of 1966 and in consultation with the Advisory Council on Historic Preservation.

I did not intend to share my life’s story here, but I am amazed at how historic preservation has become seemingly ever-present in my career. It is so important for me to remember those who have preceded us, creating such a rich cultural heritage. While I’ve seen the loss of many wonderful structures, I can tell you that we’ve had some significant successes. That building I mentioned above…the Omaha National Bank Building that was gutted and so close to the wrecking ball...it survives today, having been purchased by a local law firm and carefully renovat ed (twice!). We have become the keepers of some very special artifacts and I, for one, have been grateful for the opportunity!

This month, the Architectural Practice Committee Quarterly Journal will highlight preservation efforts within our community. Next year, the Society of American Military Engineers will celebrate our centennial year. This milestone will serve as a reminder of our great history and Paula Loomis and her team are developing a very special tribute to significant historic military sites and structures. I encourage you to share your stories and join us in that celebration of design excellence and the challenging task of protecting the products of our professional communi ty, yesterday, today, and tomorrow!
The Architectural Practice Committee will host a quarterly conference call on Wednesday, January 23, 2019 from 12:00 – 1:15 pm Eastern. Please join the meeting from your computer, tablet, or smartphone at https://global.gotomeeting.com/join/921502013

You can also dial in using your telephone at:

Dial In: United States: +1 (571) 317-3129
Access Code: 921-502-013

Time: 12:00 pm to 1:15 pm, Eastern; 11:00 am to 12:15 pm, Central; 10:00 am to 11:15 am Mountain; 9:00 am to 10:15 am, Pacific; 8:00 am to 9:15 am, Alaska; 7:00 am to 8:15 am, Hawaii.

The agenda for the quarterly conference call includes an update on committee focus area initiatives, open discussion, and a presentation providing 1 AIA-accredited HSW LU.

The presentation will be given by David Cockrum, P.E., titled “Jefferson Barracks Building 29”.

A more than 100-year-old building needed structural renovation and upgrades to meet requirements for seismic resistance, anti-terrorism/force protection (AT/FP) and progressive collapse to serve as new office space for the 131st Civil Engineering Squadron and upgrades to meet requirements for seismic resistance, an engineering manager responsible for schedules and budgets of new product development.

David Cockrum, P.E. has 18 years of structural engineering experience. David has a strong background with structural analysis, design, calculations and preparation of construction documents. David is also experienced with estimating, planning and execution of projects. As a structural engineer, David has designed military and government facilities, pre-engineered metal buildings and heavy industrial structures. David has also served as an engineering manager responsible for schedules and budgets of new product development.

BOOK REPORT

Path Between the Seas by David McCullough
Reviewed by Paula Loomis

The Panama Canal was one of the largest and most difficult engineering projects undertaken. The canal is an artificial 82 kilometer waterway that links the Pacific and Atlantic Oceans. The earliest mention of the canal was when Charles V King of Spain ordered a survey (the Alessandro Malaspina plan) in 1534. Sir Thomas Browne hypothesized that the cut could be made in 1668. Thomas Jefferson suggested in 1788 that once a canal was made the tropical ocean currents would naturally widen the canal thereafter. (The French would find out there was some truth to Jefferson’s understanding of the currents). In 1843 Barings of London and the Republic of New Granada entered into the contract to build the canal, but the construction was never carried out. The Kingdom of Scotland launched the Darien.

In 1846 the Mallarino-Bidlack Treaty negotiated between the United States and New Granada granted the US transit rights and the right to intervene military in the isthmus. William Aspinwall established steamship legs between California and Panama and New York and Panama as well as an overland transit. Nearly all the gold that was shipped from California to the east coast as part of the California Gold Rush traveled Aspinwall’s route. The US constructed a railroad along the route in 1850.

The French, who had built the Suez Canal, began construction on the canal in 1881 as a sea-level canal (similar to the Suez Canal) but stopped in 1894 when the terrain and torrential rainy season waters made the sea-level canal unfeasible and because tropical diseases, such as malaria, were costing the French 200 workers per month and making it difficult to maintain an experience workforce. Ferdinand de Lesseps, who had built the Suez Canal, led the effort. In the end he, his son, and Gustave Eiffel, who was also involved in the effort, were found guilty of misappropriation of funds and imprisoned (later to be overturned). The United States took over the project in 1904 and opened the canal in 1914 and making the trip between the Atlantic and Pacific Oceans greatly shorter for ships.

This book tells the story of the American effort - the men and women that constructed the canal - John Findley Wallace, chief engineer and general manager of the Illinois Central Railway; John Frank Stevens, who built the Great Northern Railway; Colonel William C. Gorgas, Chief Sanitation Officer; and General George Washington Goethals, who completed the canal two years ahead of schedule. Have a great time learning about these engineering leaders.

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6 Avery, Ralph (1913), The French Failure, America’s Triumph in Panama. Chicago, Ill.: L.W. Walter Company.
**SAME NEWS**

**Society of American Military Engineers (SAME) Announces new Military Architecture Award**

Improving Military Built Environments Through Sustainable Designs

The Society of American Military Engineers (SAME) is pleased to announce the introduction of the Military Architecture Award Program, a series of awards focused on improving the quality of military built environments. The program will feature facilities across all branches of military that are centered on improving operational efficiency, enhancing mission accomplishment and positively impacting the federal agency.

“We are excited to announce the inaugural Military Architecture Award program, to promote and recognize architectural contributions to national security,” says J.J. Tang, FAIA, FSAME, and Military Architecture Award program co-chair. “The mission of the award program is to recognize designs that enhance the built environment within and around their facilities, and to encourage sustainable and energy efficient designs.”

The award will be segmented into three categories, which include built projects, un-built projects and test of time projects that are at least 25 years old. Any facility, infrastructure, landscape, planning or facility-related project that was designed, completed or constructed for a SAME partner agency is eligible to apply. Submission is open to any entity involved in the project including, but not limited to, architecture and engineering firms, general contractors and partner agencies.

Awards will be given to projects that exhibit the highest level of quality achievement as described by the purpose statement and determined by the jury. The jury will be comprised of prominent architecture/engineering industry practitioners and may award none, one or multiple awards in each category based on the process used by the Army, Navy, Air Force and AIA Design Awards Programs.

Interested in applying? The application submittal portal will officially be open in October 2019, with applications due by December. Winners will be notified in March 2020 at the first awardees ceremony held at the 2020 SAME Centennial JETC Celebration. For more information regarding guidelines, deadlines and the application process, visit www.same.org.

Award Program Chair: J.J. Tang, FAIA, FSAME, junjian.tang@hdrinc.com. Award Program Co-Chair: Paula Loomis, PhD, FAIA, FSAME, ploomis-va@cox.net

**ARCHITECT’S PHOTOGRAPHY CORNER**

Thomas Jefferson Building, Library of Congress


Canon 5D Mark IV
17-40mm f/4 lens
17mm focal length
ISO 2000
Shutter Speed 1/125 sec.
No flash
Edited in Adobe Lightroom

Photograph by: Brandon Tobias
BY DAVE PACKARD, R.A., PMP, FSAME

HABS / HAER / HALS

The Heritage Documentation Program, a division of the National Park Service (NPS), administers the nation’s program which is responsible for recording, through written history, photographs, and measured drawings, historic buildings and places in the United States. Three separate programs have been established including the Historic American Building Survey (HABS), the Historic American Engineering Survey (HAER), and the Historic American Landscapes Survey (HALS).

HABS is the oldest of the programs, having been established in 1933 to document America’s architectural heritage as a measure to mitigate the loss of historic building fabric throughout the nation. The program coincided with the establishment of nation historical sites and landmarks, as the system of National Parks began to emerge. In fact, HABS was the formed after a tripartite agreement between the American Institute of Architects, the Library of Congress, and the National Park Service, providing the establishment of the survey program. The focus of HABS is to develop “a complete resume” of the builder’s art and includes examples of a broad range of building types to include residential and commercial, architect-designed and vernacular, secular and religious, and those of national, regional, and local interest.

HAER is a similar to HABS and was inspired by the success of HABS. Established in 1969 by the NPS, the American Society of Civil Engineers, and the Library of Congress, the program is focused on recording significant structures representing engineering and industry. They include bridges, canals, culverts and similar transportation-related structures, manufacturing and industrial sites, roads and parkways, and electrical/electronic generation and distribution systems. The program agreement was later ratified by four other engineering societies: the American Society of Mechanical Engineers; the Institute of Electrical and Electronic Engineers; the American Institute of Chemical Engineers; and the American Institute of Mining, Metallurgical and Petroleum Engineers.

NPS and the American Society of Landscape Architects established HALS to document historic American landscapes of regional and national significance. Historic landscapes can include everything from gardens to national parks and vary in form from rural to urban, and agricultural to industrial sites.

In the Spring of 1976, the nation’s bicentennial year, I had just graduated, married, and started my first full-time job as a soils technician with the State of Nebraska Department of Roads. With no real architectural experience and interest rates in double digits, I was happy to have a job at all. I had heard about HABS during my final semester in college and had applied to the program as a part of my job search and a week after my wedding, was contacted by the NPS. “If you can be in Wilmington, Delaware within five days, we will hire you for a HAER summer survey!” I couldn’t have been happier, but nervous to pull up stakes and head to a part of the country I had never visited.

Our HAER team consisted of a senior historian, two student historians, a supervisory architect, and three architecture students (or recent graduates like me). The 1976 Delaware Summer Survey team also included two photographers and was overseen by historical architects from the NPS in Washington, D.C. While we were to document structures through the small state of Delaware, our “studio” was located in the Hagley Museum and Library on the banks of the Brandywine River in Wilmington, Delaware—lovely digs!...the grounds include the first family home and gardens of the DuPont family—downright historic! Once the team gathered and found housing, we were presented with a catalog of structures to be documented during the course of the summer, including three railroad culverts on the nation’s first railway (now an overgrown trace deep in the woods), an ice house, a grist mill built in 1735, a range light used by mariners for navigation on the Delaware Bay, and a railroad roundhouse.

As architects, our responsibilities were to follow the directions of historians, who had researched the significance of the structures and identified their locations. The team was subdivided and each was assigned to a specific location. Using gridded sketch pads and tape measures, the team would painstakingly record the structure in its current condition, and take accurate measurements of all elements to allow preparation of record drawings back at the studio. No such thing as cell phones or digital cameras. All drawings were to be produced by hand using ink on mylar. Strict guidelines for the execution of the record drawings required a site plan and site location plan, a historical description of the structure and the makeup of the team and sponsors, floor plan(s), elevations, cross sections, and key details, where appropriate. All drawings included dimensional data and notes and depicted the current condition of the structure, including deteriorated structure, broken window panes, and missing elements (i.e. doors, windows, roofing, and so on). By the end of the 16-week summer survey, our team had produced detailed drawings of all seven structures and battled heat, rain, mosquitoes, and rough terrain in the process. We loved it. I’ve included examples of three drawings for your reference. All drawings, along with photographs and historical documents are available through the Library of Congress, the repository for all HABS/HAER/HALS archives.
MILITARY ARCHITECTURE, CONTINUED

Chesapeake and Ohio Canal and the Delaware Breakwater. He was appointed to the Board of Engineers, along with then Major Joseph G. Totten. Bernard and Totten made an extensive tour of the east coast and made a detailed report of their findings and recommendations to Congress in 1821. This report became the basis for all American coastal fortification built before the American Civil War. The forts built as a result of this report are commonly referred to as Third System fortifications. During the Marquis de Lafayette’s famous trip to the United States in 1824-1825, the Marquis admired the Old Point Comfort stronghold which had also been designed by Bernard. During his time in America, he was a member of the prestigious Columbian Institute for the Promotion of Arts and Sciences, which counted among its members presidents Andrew Jackson and John Quincy Adams and many prominent men of the day, including well-known representatives of the military, government service, medical and other professions. He resigned from the Army on July 10, 1831, but returned to France after the July Revolution of 1830 and he was made a lieutenant-général by Louis Philippe I of France. He was named to the general committee on fortifications and was tasked with drafting the plans to improve the fortifications of Paris. He was made a peer of France in 1834. He served twice as minister of war. In 1834 he held the post for eight days (10–18 November) and again from September 1836 to March 1839 under Louis-Mathieu Molière. Early Army bases responded to the defense of outside forces and the need to train troops within the complex. Fort Monroe is one of the purest examples of early army base planning. The fort is located at the southern tip of the Virginia Peninsula. Along with Fort Wool, it guarded the navigation channel between the Chesapeake Bay and Hampton Roads - the natural roadstead at the confluence of the Elizabeth, the Nanosecond and the James Rivers. The site was identified as a strategic defensive location beginning in 1609 with the construction of Fort Algernourne, a wooden stockade followed by series of forts. Following the War of 1812, the United States realized an increased need to protect Hampton Roads and the inland waters. In March 1819, President James Monroe promoted the idea of a network of coastal defenses with Bernard and Totten’s report being published in 1821. Many fort functions (work spaces, offices, sleeping quarters, a jail and of course defensive locations to fire weapons at the opposing enemy) were located in the casemate walls. The parade field is located in the center of the fort with later expansions of officer housing, enlisted housing, barracks, administrative buildings and a church surrounding the field with axial emphasis placed on the barracks building. The parade field facilitated training, but also served as a community center and a form of entertainment. Families could sit on their porches and watch the military exercises. General Robert E. Lee also played a major role in construction while stationed at Fort Monroe from 1831 to 1834.

A famous US architect was also involved in Fort Monroe. The simple gothic revival church, designed by architect and founder of the American Institute of Architects, Richard Upjohn, FAIA, does not play a prominent role on the parade ground, but is tucked in a corner. This is probably because it was a donated structure by the Army and not part of the original plans. The structure is a simple one story wood clad structure with elegant, but simple lines. One could imagine that Upjohn probably took on the commission with a relatively low fee as a way to “serve the military”. Upjohn’s other major works include the entrances to the Boston Common, Boston’s central park and his first church, St. John’s Episcopal Church in Bangor, Maine. He had relocated to New York City by 1839 where he worked on alterations to the famed Trinity Church on Wall Street in lower Manhattan, as well as designing its replacement. Upjohn wrote a book “Upjohn’s rural architecture: Designs, working drawings and specifications for a wooden church, and other rural structures”, in 1852.

Fort Monroe, a seven-sided stone and brick fort was begun in 1832 and would become the largest stone fort built in the United States. It would come to be known as the Gibraltar of Chesapeake Bay. The thick casemate stone walls of the fort and moat form a perimeter defense against potential attacks with five of the star points oriented toward the sea to make better use of enfilade (flanking fire) against any attackers. The two access gates into the fort align with routes to the fort, one via land and the other via a bridge. In later years construction of a second ring of stone casemate walls was started, but was determined to be not defensively much more effective than just the original stone wall. St. John’s Episcopal Church in Bangor, Maine. He had relocated to New York City by 1839 where he worked on alterations to the famed Trinity Church on Wall Street in lower Manhattan, as well as designing its replacement. Upjohn wrote a book “Upjohn’s rural architecture: Designs, working drawings and specifications for a wooden church, and other rural structures”, in 1852.

Back to Fort Monroe, in later years as threats from the sea became less, the functions and buildings of the fort expanded past the original fortification walls. But
Fort Monroe's most memorable feature is its stone wall fortification and initial structures designed by famous French and US architects. Fort Monroe was part of the 2005 Base Realignment and Closure and is now overseen by its Redevelopment Authority as well as the National Park Service that gives tours of the Casement Museum, where Jefferson Davis was held during the Civil War. Anyone can visit and enjoy the fort.

Philadelphia Navy Yard - The Early Navy

The Philadelphia Navy Yard is one of the earliest shipyards and well-known for its detailed Beaux-Arts industrial architecture. The yard has its origins in a shipyard on Philadelphia’s Front Street on the Delaware River that was founded in 1776 and became an official United States Navy site in 1801. From 1812 till 1860 it was a big production center. The first ship which was launched to the water was the vessel Franklin. This event was watched by more than 50,000 spectators. The rapid development of other shipbuilding companies pledged Philadelphia to improve production processes. It was the first shipyard in the world to use floating dry docks in the building process to improve an operating time for ships. After the advent of ironclad warships made the site obsolete, new facilities were built in 1871 on League Island at the confluence of the Delaware and Schuykill Rivers.

Several buildings at the Navy Yard were designed by Rankin, Kellogg and Crane. Established in 1891 by John Hall Rankin and Thomas M. Kellogg, both former MIT students, Rankin & Kellogg flourished as one of the chief practitioners of the Beaux-Arts style for public buildings. They rivaled Paul P. Cret in their participation in the large competitions popular in the early years of the century and reflected in their practice and styles the influence of the New York firm of McKim, Mead & White. As a result of this exposure and their use of the Beaux-Arts style, they were an early entrant to the large competitions popular in the early years of the century and reflected in their practice and styles the influence of the New York firm of McKim, Mead & White. As a result of this exposure and their use of the Beaux-Arts style, they were an early entrant to the large competitions popular in the early years of the century and reflected in their practice and styles the influence of the New York firm of McKim, Mead & White.

The Store House was designed by the firm of Zantzinger, Borie & O’Riley, established in 1905. The storehouse was a modern functional building with a symmetrical layout similar to an orthodox church with large delivery doors at what would be the ends of the transept. Each delivery door has a large arched window over it ornately detailed. All the windows and cornices have rich, ornate details. I could not find the architect’s name listed, but could imagine a firm similar to Rankin and Kellogg did the design. The Boiler Shop is now part of the headquarters complex for Urban Outfitters. It is part of the Philadelphia Naval Shipyard Historic District which is not on the National Register of Historic Places but could image a firm similar to Rankin and Kellogg did the design. The Boiler Shop is now part of the headquarters complex for Urban Outfitters. It is part of the Philadelphia Naval Shipyard Historic District which is not on the National Register of Historic Places but could image a firm similar to Rankin and Kellogg did the design.

The Marine barracks is a historic barracks located at the Philadelphia Navy Yard designed by Rankin and Kellogg. It was built in 1901, and is a four-story, red brick and gypsum block building in the Beaux Arts style. It features a central rounded archway, open porch, and tile roof. It was built by and remains occupied by the United States Marine Corps. Some of the first Naval Aviators landed and took off from the parade grounds in the front of the building. The Marine Barracks was added to the National Register of Historic Places in 1976.

Commandant’s Quarters, also known as Quarters “A”, is a historic home located at the Philadelphia Naval Shipyard, Philadelphia, Pennsylvania. It was built in 1874-1875, and is a three-story, painted brick dwelling in the Italian Villa style. A porch was added in 1901. It features an off-center square tower, slate covered gable roof, bracketed waves, and a bay window. It was an officer’s residence until June 1960. It was added to the National Register of Historic Places in 1976.

Building 18 was constructed in 1904 as a Boiler Shop and is one of the most interesting and ornate Beaux Arts buildings on the Navy Yard. It has a symmetrical layout similar to an orthodox church with large delivery doors at what would be the ends of the transept. Each delivery door has a large arched window over it ornately detailed. All the windows and cornices have rich, ornate details. I could not find the architect’s name listed, but could imagine a firm similar to Rankin and Kellogg did the design. The Boiler Shop is now part of the headquarters complex for Urban Outfitters. It is part of the Philadelphia Naval Shipyard Historic District which is not on the National Register of Historic Places but could image a firm similar to Rankin and Kellogg did the design. The Boiler Shop is now part of the headquarters complex for Urban Outfitters. It is part of the Philadelphia Naval Shipyard Historic District which is not on the National Register of Historic Places but could image a firm similar to Rankin and Kellogg did the design.

 Commandant’s Quarters, Philadelphia Naval Shipyard, Langley Avenue 1874, Italianate Villa

8 Philadelphia Architects
In 2013, the Master Plan was updated, building upon the successes to date, with an expanded vision of what’s to come. At full build-out, the Navy Yard will support up to 13.5 million square feet of development, 30,000 people, and over $3 billion in private investment. With this plan as a guide, the Navy Yard is planning for its bright future ¹⁸.

Today there are several well-known firms with projects at the Navy Yard. Meyer, Scherer & Rockcastle designed the historic renovations for Urban Outfitters with a nice job of combining the rich exteriors and stripped down industrial interiors with inserted modern elements that allow the historic elements to read and modern functions to occur. The renovations also nicely fit the “image” of Urban Outfitters. Stern designed several of the initial projects including One Crescent Drive (for Liberty Property Trust) and 5 Crescent Drive (for GlaxoSmithKline). The projects combine more sleek modern facades that respond well to the urban framework laid out by Stern in his Master Plan. Erdy McHenry designed 3 Crescent Drive for Tasty Baking Company as well as the Courtyard by Marriott. The Marriott has a metal panel rain screen that helps minimize heat transfer along the southwest facade as well as a varying facade of metal panels to set up a rhythm along the facade. Digsau designed a narrow office building with a regularized curtain wall of concrete and glass on each of the prominent ends to control the strong morning and afternoon sunlight. The building is occupied by Iroko Pharmaceuticals. Digsau has a more playful wood and glass building recently constructed for Adaptimmune. 330 foot facade along Kitty Hawk Avenue with the sensitivity, restraint and attention to detail found in Kieran Timberlake designed the Penn State Center for Building Energy Education and Innovation - a museum of the prominent ends to control the strong morning and afternoon sunlight. The building is occupied by Iroko Pharmaceuticals. Digsau has a more playful wood and glass building recently constructed for Adaptimmune. Kieran Timberlake designed the Penn State Center for Building Energy Education and Innovation - a museum of the Penn State Center for Building Energy Education and Innovation - a museum of the central green Park ¹⁹.

The Philadelphia Navy Yard is open to all visitors. Enjoy both the historic military and new commercial architecture.

In 2004, the Navy Yard commissioned Robert A.M. Stern Architects and a team of real estate, development, planning, and design professionals to produce an updated Master Plan. The 2004 Master Plan provides a series of initiatives and actions to create a vibrant mixed-use campus, centered on historic preservation, sustainability, and smart growth. The Plan’s vision includes environmentally friendly workplaces, notable architecture, industrial development, great public spaces, waterfront amenities, improved mass transit, and residential development. The Navy Yard is home to 120 companies with 10,000 employees, as the campus continues to expand and develop. Clothing manufacturer Urban Outfitters consolidated its Philadelphia headquarters on the site, while Tasty Baking Company, makers of Tastykakes, has moved their bakery to the 26th Street side of The Yard. Other companies there include Rittenhouse Ventures, GlaxoSmithKline, Iroko Pharmaceuticals, Aker Philadelphia Shipyard, Rhoads Industries, Philadelphia Industrial Development Corporation (PIDC), Energy Efficient Buildings Hub (EEB Hub), RevZilla.com, and Mark Group, Inc.

So the Philadelphia Navy Yard had an interesting architectural beginning. Closed in 1995 by the BRAC Commission, their current uses also have exceptional architectural lineages.

Philadelphia Navy Yard
This photo was included in a collection compiled by the Library of Congress after 1968. Source: www.phillyvoice.com

Philadelphia Navy Yard
Photos on left were included in a collection compiled by the Library of Congress after 1968. Photos on right by Thom Carroll/Phillyvoice
Source: www.phillyvoice.com

¹⁸ https://navyyard.org/about-the-campus/master-plan, accessed 12 Jan 2019