

More Than a Building on Broad Street: A History of the Science Museum of Virginia, 1910-2017

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Chapter 5: Expanding the Science Museum of Virginia

Upon his installment as director, Walter Witschey took stock of the Science Museum of Virginia's situation.¹ From its finances to the physical condition of Broad Street Station, the new director met with staff members and Trustees to determine the first actions he should take at the institution's helm. The most pressing task was the completion of phase III of renovations. The Foundation needed to secure enough funds to finish the project; the rotting train sheds behind the Museum would not sustain another five years of neglect. In the fall of 1992, "on the 20th anniversary of the six year plan," the SMV received money from a state bond issue that allowed the staff to continue renovations.² Witschey oversaw the "refurbish[ment] and clean up [of] the perimeter property of the museum," in addition to the "complete...restoration of the passenger platforms and the historic butterfly canopies."³ It would be another four years before the space opened to Museum guests, but the 1992 bond issue allowed Witschey to begin managing phase III of renovations in his first year as director.

Witschey also reevaluated the educational programming offered by the SMV. He realized that the Museum lacked a permanent exhibit on the life sciences; a crucial and evolving field with countless everyday implications for the lives of visitors. At the dedication ceremony of Dr. Hughes's commemorative plaque in August 1989, Elizabeth Hughes explained to the crowd, "As a biologist, I hope the next stage [at the SMV] will be life sciences—the universe within."⁴ Knappenberger agreed, telling news reporters that "a study is about to begin to come up with proposals for opening the east wing of the Science Museum to life-sciences exhibits."⁵ Walter Witschey had an opportunity to transform the study's findings into a reality; a challenge he met with enthusiasm.⁶

In addition to renovating the train sheds and bringing life science displays to Broad Street, Witschey wanted to grow the Museum's sphere of influence by constructing satellite science centers throughout the state. Ideally, every Virginian would have access to a public-

science institution within fifty miles of their home.⁷ While the museum continued to operate under its relatively unchanged 1970 legislative authorization, its scope and mission had deviated significantly from the original vision of the 1967 Study Commission for a statewide network of science centers. Witschey hoped to restore the Museum's original, state-sanctioned design by initiating "one of its most aggressive outreach programs [in the SMV's] history": the development of regional satellite science centers across the Commonwealth.⁸

This chapter explores Witschey's term as director and the work carried out by staff members, Trustees, and Foundation directors to transform the SMV according to his vision. The expansion of the Museum experienced inspiring successes and discouraging shortfalls; especially with the dawn of the millennium and the onset of a nation-wide recession. By the end of his tenure as director, Witschey left a lasting impression on the Museum with the development of new exhibits, educational programs, renovated spaces, and, most of all, a locally-supported science center in Danville, VA. While Knappenberger had "done a remarkable job...mov[ing] the institution from zero to an exciting leadership position in the world of science centers," Witschey wanted to improve upon that progress and usher the SMV into the twenty-first century. In an interview with the *Virginia Review*, he explained, "We didn't try to modify our mission so much as to focus on additional strategies for implementing it well."⁹ Like his predecessors in the Museum's leadership, he would find more success in some of his endeavors than others.

Initiating Walter Witschey's Vision for the Science Museum of Virginia

Once phase III of renovations was underway, the SMV could focus on initiating the first steps toward achieving Witschey's goals for the Museum. Almost by chance, the administration began with the development of a satellite science center in Danville; a city in economic decline after the closing of several tobacco warehouses and textile mills. Witschey had personal connections to the struggling city. His mother and father in law lived in Danville, members of a community that hoped to rebuild their home's financial infrastructure by developing new industries and businesses in the area.¹⁰ When Witschey visited his in-laws, he explained his plans for expanding the SMV.¹¹ They concluded that the Museum should "do this in Danville" and build a satellite science center to serve Southside Virginia.¹² Before Witschey could wrap his head around the idea, his family was suggesting "names of key local arts organizers and

government officials he needed to contact to get things rolling.”¹³ At one point in their conversation, his mother in law disappeared from the room and “returned, saying one of those key people was on the phone, and he needed to talk to him.”¹⁴ Just like that, the Danville Science Center was set in motion.

To ensure the financial success of the project, Witschey needed someone to coordinate a fundraising effort on the ground in Danville. Governor Wilder’s budget cuts in the face of an economic recession ensured that the General Assembly would not appropriate monies for a satellite center; it was hard enough for the Museum to secure funding for its daily operations in Richmond.¹⁵ In April 1992, Witschey asked a business-savvy member of the Board of Trustees to serve as executive director of the Foundation: Robert ‘Bobby’ Thalhimer.¹⁶ Bobby Thalhimer was the son of William B. Thalhimer, Jr. and “served on the board of the Science Museum of Virginia Foundation” both “before and after his staff duties with the Science Museum.”¹⁷ He was responsible for converting a tranche of donations into an endowment for the Museum during Knappenberger’s last years at the SMV.¹⁸ Witschey hoped that Thalhimer could accompany him to significant meetings in the planning process of Danville and design a successful localized fundraising strategy to get the center on its feet.

Together, Witschey and Thalhimer approached Whittington W. Clement, a popular state delegate from Virginia’s 20th district, to begin planning a capital fundraising campaign.¹⁹ Clement supplied the pair with a list of seven potential donors in the community, six of which pledged gifts to the project and agreed to serve as board members for the Danville Science Center.²⁰ One of the potential donors—the local Kiwanis Club—provided a large initial grant for exhibits, which effectively sparked the community fund-raising effort. Shortly after forging these relationships, the SMV sent a staff team, led by David Hagan, down to Danville to boost local support for the center and design future educational programming. Hagan and Thalhimer met with local teachers and other residents of Danville to collect and incorporate their ideas for a public science institution.²¹ The SMV placed Hagan in charge of exhibition design for the center while Thalhimer helped three local women continue raising funds for the campaign.²² At first, Eileen Stendig, Lamar Owen, and Virginia Hall needed Thalhimer to lead their meetings with potential donors.²³ With time, they learned the ins and outs of fundraising and, in the end, managed to raise \$1 million for the center.²⁴

Meanwhile, the SMV facilitated discussions between the growing team of community representatives, the City of Danville, and Norfolk Southern Corporation (NS) to secure a viable location for the center. NS owned property that housed the Southern Railroad Passenger Station, a structure built in 1899 that had fallen into disrepair.²⁵ All parties agreed that if the space could be restored, it would be an ideal site for the science center.²⁶ When ground was broken on November 11, 1994, the Danville Science Center became one of several initiatives associated with the city's Crossing at the Dan, "a multiphase project which included the renovation of the 1899 Southern Railroad Passenger Station, the 1885 Gibson Beverage Company Building, the 1904 Southern Railroad Freight Depot and the 1856 Richmond/Danville trestle bridge."²⁷ Locals interpreted the series of renovations as a useful "development tool" to improve Danville's business district.²⁸

As Museum staff and community representatives continued working on the Danville Science Center, the SMV established the Center for Science Education (CSE) in 1995.²⁹ The CSE was "not a place or a thing," but a committee responsible for "manag[ing the SMV's] extensive (and growing) statewide education activities" and "serv[ing] as its link to Virginia school systems."³⁰ The committee sought to "involve scientists and institutions in activities of the Science Museum of Virginia and the Center for Science Education," "increase participation of the statewide scientific community with the Science Museum and to build partnerships for science education," "identify and cultivate scientists for participation in programs and exhibits where needed," and "identify individuals, corporations and foundations who may fund the initiatives of the Science Museum and the SMV Foundation."³¹ The CSE was particularly useful for building and maintaining relationships with educators throughout the state, an important support network for the Museum and segment of its consumer base.

With the CSE up and running, the SMV turned its attention to building a substantial, permanent life sciences exhibit at Broad Street Station. To achieve this goal, and fund other projects in the Museum's master plan, Bobby Thalhimer and members of the staff designed the Journey into Science Campaign, "a five-year \$30 million" fundraising initiative that strung together exhibit spaces in Broad Street Station with a coherent theme.³² According to this plan, "visitors to the Science Museum will participate in interactive journeys exploring a number of science and technology topics based on thematic storylines."³³ The seven newly-designed, or reorganized exhibits, would include "Journey to the Edge of the Galaxy, Deep Ocean Space,

Journey through Life, Journey through Cyberspace, Discovery Park, Steps to Understanding and On the Move.”³⁴ Each “journey” was intended to “immerse visitors in a story educating them about the various scientific principles and disciplines.”³⁵ Practically, the campaign allowed the Museum to grow out of its unstable financial situation by securing \$10 million dollars from the state “while the remaining two-thirds” of the \$30 million was obtained “from private resources.”³⁶ Thalhimer managed the campaign by bringing in sales professionals to secure corporate sponsorships for films or exhibits.³⁷ He also used the Museum’s existing assets to forge long-term donation relationships with private businesses and philanthropic families.

One of the most rewarding financial partnerships that Thalhimer built was between the SMV and Reynolds Metals Company. In October 1992, the Company gave a historic “deep-diving submersible” to the Museum.³⁸ The *Aluminaut* was “the world’s first aluminum submarine” which “set a world record for the deepest dive by a submarine and traveled the globe to perform scientific research and emergency salvage missions” throughout its lifetime.³⁹ Thalhimer promised the Company that the submersible would become “the first outdoor installation” in the “seven-acre area north of the museum’s concourse.”⁴⁰ Along with “a [planned] transportation technology exhibition and...nature park,” the *Aluminaut* would serve as “the centerpiece of outdoor events and educational activities” at the Museum.⁴¹ In return, the Reynolds family agreed to donate \$1 million dollars to the Journey into Science Campaign.⁴² The *Aluminaut* arrived at the Museum on May 6, 1995.⁴³

Before the public could view the record-breaking machine, the SMV needed to improve the grounds behind Broad Street Station. A significant part of the project was the reinstallation of “2,800 feet of railroad track leading to” the Museum building.⁴⁴ This track would allow the SMV to move railroad cars to and from the proposed outside-exhibit area, creating space for an adaptable transportation display. On March 31, 1994, Witschey submitted an application pursuant to the relatively-new “federal Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991.”⁴⁵ If approved, an ISTEA grant could provide the Museum with enough funds to begin working on the track “as rapidly as possible.”⁴⁶ Witschey requested a total of roughly \$1 million from the federal government, \$619,000 of which would go toward “installing railroad track in our exhibit area.”⁴⁷ On June 22, 1995, he received word that the Museum was awarded “a grant of \$416,000...under” the ISTEA; less than Witschey hoped, but enough to begin construction on the track.⁴⁸

While Thalhimer and Witschey devoted their efforts to the Journey into Science Campaign, the Museum's staff coordinated events and programming at the Virginia Aviation Museum. In August 1994, VAM attracted "record crowds" to celebrate "the 50th anniversary of the liberation of Paris."⁴⁹ The Museum displayed "a photographic exhibition and the film, 'Merci, America,' both on loan from the Embassy of France in Washington, D.C."⁵⁰ Children could also become "scouts in a French Resistance scavenger hunt," and participate in other hands-on activities.⁵¹ In November 1994, VAM supervised the movement and rededication of a Civil War Balloon Corps Monument on site.⁵² "Uniformed Confederate and Union" reenactors spoke with guests and the "ceremony featured a hot air balloon."⁵³ VAM also welcomed "aviation museum professionals from around the world" in April 1995 by hosting the annual Mutual Concerns of Air and Space Museums Conference.⁵⁴ Attendees "discuss[ed] current trends in aviation history museum management" and perused the Museum's collection of air-worthy planes.⁵⁵ Though much of the SMV's staff was hard at work on the Journey into Science Campaign, the Museum was still responsible for managing the every-day activities of its first satellite center, the Virginia Aviation Museum. In December 1995, they would add the Danville Science Center to their operational obligations.

Opening the Danville Science Center and Building a Broad Street Campus

On a chilly December 9, 1995, the Danville Science Center opened its doors to guests for the first time.⁵⁶ In a few years of operation, the Center "attract[ed] more than 25,000 visitors annually," including "school groups from as far away as Prince Edward County."⁵⁷ In consultation with the SMV's staff on Broad Street, the new employees in Danville "forged cooperative partnership programs with area schools" and worked to provide local residents with fun, hands-on science education.⁵⁸ According to an agreement between the Center and the City of Danville, museum staff was responsible for "interior maintenance and operating expenses" while City employees were charged with "maintaining the building's exterior and paying the utilities."⁵⁹ This arrangement allowed the Museum to save money and the City to support a new financial asset located in the Crossing at the Dan.

As the Danville Science Center made a name for itself in Southside Virginia, Walter Witschey oversaw the transformation of Broad Street Station into a "learning campus."⁶⁰ On

April 2, 1996, the SMV sealed a deal with the Richmond Children's Museum to move their operation to the site of a "closed ABC store on the lot next" to the Station.⁶¹ "The acreage in the back" of Broad Street was still in the process of "being developed for train access, as well as an ecology" commons called Discovery Park.⁶² Witschey believed that the triumvirate of educational sites would fit "in beautifully with museum activities just blocks away at the Virginia Historical Society" and the Virginia Museum of Fine Arts.⁶³ The SMV hoped to develop "shuttle tours...to tie all these activities together," allowing guests to easily travel between the different institutions.⁶⁴

On April 3, 1996, the Museum gained another off-site asset when a former Ambassador to Australia, Walter Rice, and his wife, Inger, donated their home to the Foundation.⁶⁵ The couple "commissioned famous West Coast architect Richard Neutra to design" the "modern structure" on the James River in 1960s Richmond.⁶⁶ The blueprint for the building was "an example of Neutra's philosophy that design should connect man with nature and blend the interior with the exterior."⁶⁷ Once constructed, the home was "unlike anything in the Richmond area."⁶⁸ Inger Rice offered the property to the SMV on the condition that the Museum would not put it on the market; a stipulation that led the VMFA and University of Richmond to reject a similar proposal from Inger before she came to Broad Street.⁶⁹ She wanted the house to be preserved, not sold, and Witschey was willing to look into the opportunity and accept the gift according to her wishes.

Witschey, Thalhimer, and Elizabeth Blatt, Deputy Director of the SMV, each researched an aspect of the property to determine if it would be a financially viable addition to the Museum.⁷⁰ The gift included roughly 30 acres of land: 11-acre Lock Island and 19 acres of shore land.⁷¹ The land possessed ecological as well as historical significance "because of its proximity to the railroad, foundries and sites like Tredegar Iron Works."⁷² The SMV could use the property to "study plant and animal species around the home and in the river, as well as researching ways of drawing power from the river."⁷³ Throughout the course of a year-long negotiation, the Museum convinced Rice to sell the 19 acres of shore land and use the proceeds to fund a charitable remainder trust which would pay her and her husband 6% a year of the island property's prior year in value until they either both passed away or relinquished the home.⁷⁴ In the meantime, Walter and Inger Rice could remain in the house as long as they agreed to maintain it.⁷⁵ Rice had hoped that the Museum's director would eventually live on site,

however, the SMV opted to rent the space out for special events including “parties, weddings and meetings” instead.⁷⁶

In addition to preparing the Rice House Donation, the SMV also piloted a new educational program in 1996: the AT&T Teacher Institutes.⁷⁷ The “week-long, residential course” offered educators from “the entire state” a series of “sessions...that focus[ed] on the use of hands-on science techniques in the classroom.”⁷⁸ The inaugural group of teachers included four participants from “Richmond, Prince George County, Spotsylvania County and Fluvanna County.”⁷⁹ Their evaluations of the program were so positive that the Museum decided to expand the class to 11 teachers in 1997 and “the same program materials were also used in two sessions for the Lead Science Teachers from the City of Richmond.”⁸⁰ By 1998, over “90 teachers attended the AT&T Institute (including four teachers from West Virginia and 67 from the City of Richmond).”⁸¹ The overwhelming success of the program led AT&T to renew its financial commitment in 1999 and the City of Richmond to “ earmark funding from its NSF grant” for future programming.⁸²

Undoubtedly, the AT&T Teachers Institute, along with other programming offered by the SMV, contributed to the Museum’s “first ever unqualified ten-year accreditation by the American Association of Museums” (AAM) in October 1996.⁸³ In a letter to Governor George Allen, Witschey explained how the Museum “elected to be reviewed by its peers against the highest standards of museum professionalism and passed with flying colors.”⁸⁴ Before representatives from the AAM arrived in Richmond, Blatt “and many other staff members invested heavily in preparing for the” inspection.⁸⁵ The Association’s Commission “pa[id] special attention to the quality and content of all museums’ interpretive programs” as well as “the visual and intellectual experience of the visitor in the museum.”⁸⁶ Its members were particularly impressed by the capital campaign and the “high level volunteers” that staffed exhibits and carried out educational demonstrations.⁸⁷ According to the Commission’s report, the Museum “benefit[ed] from quality volunteer oversight, well qualified and devoted staff, and constantly improving physical facilities and programs.”⁸⁸ The AAM did warn the SMV that “Staff cuts in the Universe Theater group have caused the Planetarium program to run at a minimal level”; “a situation” that needed “attention if the institution” hoped “to continue to have a leading planetarium.”⁸⁹ Witschey and his staff learned from the accreditation process that there was still improvements to be made on Broad Street, but the changes they had implemented were

being received positively by outside observers. The accreditation was welcome news as the Museum approached its 20th anniversary, but the standards it set would require a great deal of care to maintain. Nonetheless, that seemed more-than-possible as the capital campaign ended two years ahead of schedule.

The SMV's 20th Anniversary: More Events, Exhibitions, and Renovations on Broad Street

On January 11, 1997, the SMV hosted a celebration marking the twentieth anniversary of the Discovery Room. The event attracted several high-profile guests including Governor George Allen, former Governor Mills Godwin, and Patricia Cornwell, an American novelist.⁹⁰ Cornwell, whose bibliography includes several well-known crime thrillers, donated a \$250,000 gift to the SMV to “develop an exhibition on forensics as a cornerstone of the Life Sciences Exhibit.”⁹¹ The gift helped the Museum’s staff shape the plans for the permanent exhibit space, especially staff scientist Dr. Gene Maurakis.⁹² Amidst the events commemorating Broad Street’s 20th anniversary, Maurakis continued to work with his staff to develop educational content for the “\$5.5 million project.”⁹³ He determined that the Journey into Life exhibit, known as *Bioscape*, would be broken up into “three new galleries: Health and Human Biology; Molecular Biology and Genetics; and Environmental Sciences.”⁹⁴ However, before any of Maurakis’s ideas could be installed, the Museum needed to ready both wings of the Station.

In April 1997, the SMV initiated its final major renovation and restoration of Broad Street Station.⁹⁵ The work included changes to the interior and exterior of the building, most notably the renovation of “the east and west wings...to provide exhibit space for the museum’s largest exhibition *Bioscape*,” a 10,000 square-foot project set to “occupy the entire second floor.”⁹⁶ The SMV’s plans also included the opening of the “rotunda’s walls...on the second and third floors to allow visibility into these exhibition areas from the lobby.”⁹⁷ “Elegant new bridges” were designed to “allow visitors to cross from one wing to the other, and beautiful glass elevators” would be installed “in the vestibule” to “lift visitors to the exhibition floors.”⁹⁸ Finally, “a new stepped demonstration theater” was planned for the “east wing of the third floor,” necessitating the “reconfigure[ation of] staff offices...in the remaining spaces on the third and fourth floors.”⁹⁹ The extensive changes scheduled for the Station required “most of the museum’s staff” to relocate to “a modest rented building one mile west on Fitzhugh Avenue.”¹⁰⁰

The SMV's annual report claimed that "the new offices put staff in closer contact with each other," resulting in "an improvement in communication."¹⁰¹ Regardless of whether tight quarters increased the productivity of staff members, the renovations posed a challenge for the institution's employees who "continue[d] to meet at Broad Street" to provide educational programming to Virginia's residents.¹⁰²

While construction on the east and west wings commenced, the SMV sponsored several events to counter the decrease in public exhibits inside the Station. In May 1997, the Museum hosted an Arts and Sciences Benefit Auction.¹⁰³ Attendees witnessed "celebrity and guest auctioneers" sell "more than 60 works of art, generating \$50,000 to support the new Life Sciences exhibition."¹⁰⁴ In the same month, the SMV welcomed local leaders in industry to the Business Associates Breakfast which featured Dr. Robert Templin, "Director of Virginia's Center for Innovative Technology," as the guest speaker.¹⁰⁵ The staff also "kicked off the summer" with a series of annual events, including "Spring N2 Summer and Scooper Bowl V."¹⁰⁶ Roughly "4,000 visitors" came out to the Broad Street Station in 1997 to enjoy "five varieties of Breyer's ice cream" along with "fun and educational activities, guest performances and demonstrations."¹⁰⁷ It was essential for the Museum to keep residents coming back to Broad Street amidst renovations; the continuous enthusiasm of visitors could translate into an even more successful grand opening of *Bioscape*.

The Museum offered more than events to keep Virginians interested in the SMV's future. 1998 was the pilot year for the Capital One Career Ladder program, an after-school initiative that "targeted inner-city schools" by inviting "elementary school students and their teachers to a series of classes at the Science Museum."¹⁰⁸ The SMV also developed "a program for middle school students and paid positions for high school students" to "serve as classroom aides, helping to teach the younger students and serving as role models for them."¹⁰⁹ School children of all ages could take advantage of a variety of "SAT workshops, classes in Internet skills, and tutors for students who need help maintaining the required grade levels."¹¹⁰ Though initially funded by a \$65,000 grant from Capital One, after witnessing the success of the program, company executives upped their financial support to \$108,000 for Career Ladder's second year.¹¹¹

The SMV also utilized what space remained open to continue educating guests. In March 1998, the Museum made use of its newly installed railroad tracks to "welcome trains from our past, present and future."¹¹² "The first train to test out the new track 7" was the American Orient

Express.¹¹³ The SMV planned to acquire more cars to make up its *On the Move* exhibit, a “\$13.5 million” outdoor display intended to “introduce visitors to the surface transportation technology of tomorrow, including high-speed rail technology, intermodal freight, smart cars and smart highways.”¹¹⁴ Inside the Station, staff members helped students from Varina High School construct “the world’s largest Periodic Table of Elements” on a wall of the rotunda¹¹⁵ Witschey submitted the science honor students’ creation to *The Guinness Book of World Records*; the entry was accepted in July 1998.¹¹⁶

Though the world’s largest Periodic Table was a welcome headline for the Museum, the SMV received even better news in June 1998.¹¹⁷ The Foundation recorded the last donation it needed to meet the capital campaign’s fundraising goal two years ahead of schedule.¹¹⁸ In total, the Museum raised \$36 million in three years with a 3% expense ratio.¹¹⁹ The effective campaign was the work of several people in and outside the Museum, not least of which was Bobby Thalhimer whose management piloted the initiative onto a fast track to success.¹²⁰ The money it raised allowed the SMV to fund new exhibits and programs in addition to the major renovations around *Bioscape*. For example, the Museum acquired four more train cars for its *On the Move* exhibit in the summer and fall of 1998, including the RF&P’s “Presidential Car,” or Car ONE, “constructed in 1919 by the American Car and Foundry Company.”¹²¹ The Universe Theater was also “closed for renovation in September 1998.”¹²² The space would feature “new lighting, seats, carpet, railings and a brighter screen for improved viewing and effects” when it reopened the next year.¹²³

A *ZOOMzone* activity center opened in January along with the 1999 premier of the widely-popular PBS show *ZOOM*.¹²⁴ Visitors to the center could “try new activities, ask questions and have fun exploring science and math.”¹²⁵ The SMV also debuted Bioexpress the same year, a mobile program featuring “workshops for students in grades 3-8.”¹²⁶ The topics of the workshops correlated with content found in the upcoming *Bioscape* exhibition and offered hands-on instruction in the life sciences to supplement Virginia Standards of Learning (S.O.L.s).¹²⁷

Despite these successes, not every Museum project in 1999 managed to get off the ground. In January, the SMV prepared a grant request for the Transportation Equity Act for the 21st Century to create a 0.8 mile trolley loop throughout the anticipated Discovery Park.¹²⁸ Once again, Witschey attempted to put Elizabeth S. Bocock’s trolley back into operation by

connecting the SMV with its soon-to-arrive neighbor, the Children's Museum of Richmond, via an electrified "loop."¹²⁹ The "Elisabeth S. Boccock Trolley and loop" was pitched as "an integral feature of" the 16-acre Discovery Park which was intended to "provide guests a hands-on interactive experience with core scientific principles in novel and playful ways."¹³⁰ However, neither project was realized with the economic downturn that accompanied the new millennium.

Despite the construction in and outside the Station, 1999 was a busy year for the SMV. By March, the staff unveiled the refurbished *Aluminaut* and opened the newly-renamed Ethyl IMAX Dome and Planetarium.¹³¹ In conjunction with the VMFA, the Science Museum debuted *Splendors of Ancient Egypt* in May, "a fascinating [blockbuster] exhibition displaying treasures more than 1000 years old."¹³² To supplement the exhibit, "the IMAX film 'Mysteries of Egypt'" was shown at the Dome along with a "new planetarium show [titled] 'StarDate: Ancient Horizons.'"¹³³ When the film premiered, the staff engaged in a plethora of hands-on activities with the public, including "Egyptian makeovers" to explain "how make-up related to climate in ancient Egypt."¹³⁴ In September, the Museum received word that the Danville Science Center dedicated a Butterfly Greenhouse.¹³⁵ The space allowed visitors to witness the transformation of caterpillars into butterflies and enjoy the "flowers both inside and outside of the greenhouse."¹³⁶ By October, the SMV opened *Time of Your Life*, "a major new exhibition exploring natural cycles and biological clocks."¹³⁷ The displays encouraged guests to "explore ... the cycles of the sun, Earth and moon, and their influences in shaping timing mechanisms that increase an organism's chance of survival."¹³⁸

The Center for Science Education closed out the Museum's year with a report of selected statistics. According to the CSE's calculations, "museum educators [were] delivering programs valued at more than \$444,000 to Richmond Public Schools."¹³⁹ The AT&T Teachers Institute continued to grow, "provid[ing] more than 100 teachers with a week of intense training and coaching."¹⁴⁰ All of the SMV's mobile units experienced an active summer, delivering "39 all-day programs" to schools throughout the state.¹⁴¹ The Capital One Career Ladder program helped "29 inner-city youth receive job skill training, academic assistance, SAT preparation, college planning guidance, and cultural enrichment."¹⁴² All-in-all, the renovations to the Station did not prevent the Museum from delivering hands-on science education to Virginians. If anything, the success of the Journey into Science Campaign allowed the SMV to expand its programming and exhibits; the largest of which were yet to debut at the grand reopening of

Broad Street Station. However, before the staff could celebrate the Museum's new exhibits and additions, they needed to plan for the coming millennium.

Plans for a New Millennium and the Grand Re-Opening of Broad Street Station

While there was little difference between life in 1999 versus 2000, the SMV staff, and frankly most Americans, realized that the pace of change had been intensifying over the decade. The half-life of technology was shrinking, a phenomenon that directly affected the mission of the Science Museum. If staff members hoped to deliver fun and interactive educational programming to more Virginians in the twenty-first century, they needed to make use of state-of-the-art technologies that improved the rate and quality of communication between educators and guests. However, the rapid pace of change meant that the Museum could commit itself to a machine or internet platform that would be defunct in five years. The SMV needed a clear and well-thought out plan to deliver informal science education in the future.

The Center for Science Education took the lead in outlining initiatives for the new millennium. At its January meeting, the committee crafted a list of goals to conform to “the Governor’s education initiatives and the Director’s strategic plan for the Science Museum.”¹⁴³ Their top priority was to establish “a position to take SMV to a leadership role in educational technology.”¹⁴⁴ Integrating new methods of communication into the Museum’s programming would help the staff deliver more current and exciting information to the public. In addition, new technological resources could allow the Museum to conduct “prompt and discerning evaluation[s] of SMV programs” in house.¹⁴⁵ The CSE also sought to use the internet to “expand the educational services of the Virginia Science Resource Network, VSRN,” an online database of contact information for educators looking to speak with scientific experts.¹⁴⁶ In the same connective spirit as the VSRN, the CSE wanted to bring teachers and the Museum together through a “statewide program establishing a teacher-ambassador in each school building in Virginia.”¹⁴⁷ Ambassadors could connect to the SMV and other teachers throughout the Commonwealth “through email, internet connections and on-going delivery of resources and training.”¹⁴⁸ While the committee agreed that improving existing programs was always a worthwhile goal, the Museum had to develop new ways to deliver scientific resources to the public.

Several of the Museum's millennial initiatives also related to the grand reopening of Broad Street Station. The staff organized a schedule of progressive debuts for newly renovated spaces leading up to the main event. For example, in April 2000, the SMV opened the Sundaze Café, housed in Kitchen/Power Car #20.¹⁴⁹ The ice cream parlor served "delicious homemade ice cream, sandwiches and refreshing beverages" to patrons "in the restored railroad car on Track One."¹⁵⁰ In the same month, staff members unveiled the Museum's new gift shop, Shop for Science.¹⁵¹ These additions to Broad Street coincided with the opening of the Children's Museum of Richmond next-door to the SMV.¹⁵² Visitors could now bring their children to both museums for a day of interactive learning.

By June, Museum staff members were "mov[ing] back into new offices in the Broad Street Station headquarters."¹⁵³ They left the rental building on Fitzhugh Avenue and immediately launched into more "preparations for the grand opening in October."¹⁵⁴ The SMV rolled out new productions by the Carpenter Science Theater, a live drama program that "offer[ed] audiences three unique kinds of...performances."¹⁵⁵ The newly-renovated Eureka! Theater allowed these "members of Richmond's acting community" to bring "science to life" in the Museum's galleries and on stage.¹⁵⁶ While the theater entertained guests young and old, the SMV introduced a series of adult-only discussions in August.¹⁵⁷ The "Bioethics 2000 initiative" was "a two-year collaboration project designed to increase public understanding of bioethical issues and to establish a foundation for sound judgement and responsible action in public policy."¹⁵⁸ Eugene Maurakis hosted the program while Lou Dean, a Foundation Board Member "and host of WRVA's 'Evening Newsroom,'" moderated the Sunday-afternoon discussions.¹⁵⁹ On the opposite end of the age spectrum, the Museum relocated *Wonderplace* to the Railway Express Car in October.¹⁶⁰ This "early childhood education program" engaged children from age 4 to grade level 2 in "45 minutes of hands-on activities" and a guided tour through the Museum's galleries.¹⁶¹ The relocation of *Wonderplace* occurred one day before the highly-anticipated grand reopening; ending months of intensive preparations and years of planning.

On October 21, 2000, the SMV held a celebration called *Discover Life!* to mark the grand reopening of Broad Street Station and the debut of *Bioscape*, the Museum's largest permanent exhibition. Festivities began an evening before the main event with a black-tie gala commemorating the successful Journey into Science campaign.¹⁶² The next day, the SMV welcomed Patricia Cornwell back to the Museum to see the gallery her donation helped create.¹⁶³

The Forensics Theater allowed visitors to “take a stab at crime solving” before exploring the rest of the My Size Gallery, a space that “feature[d] human biology and health science” displays.¹⁶⁴ The gallery was one of three thematic areas that made up *Bioscape*. The first “focuse[d] on molecular biology and genetics” while the last “spotlight[ed]...environmental sciences.”¹⁶⁵ The thousands of *Discover Life!* attendees could also meet Bill Nye, a popular TV personality and mechanical engineer made famous by hosting the PBS show *Bill Nye the Science Guy*.¹⁶⁶ Nye did a series of live performances throughout the day and autographed copies of his book sold in the new Shop for Science.¹⁶⁷ In addition to these festivities, guests could meet a live interpreter of Albert Einstein and explore *Lets Connect!*, an exhibit sponsored by Verizon that displayed “cutting-edge technologies in the field of telecommunications.”¹⁶⁸

Discover Life! represented the culmination of a successful fundraising campaign and years of educational planning and physical renovations to Broad Street Station. Walter Witschey and the SMV’s staff had executed several of their goals for the Museum’s future, including the institution’s first significant life sciences exhibit. Much of what guests see today when they walk through the doors of the Station and look up into the vast rotunda was seen for the first time by those who attended the grand reopening. However, the successful reveal of *Bioscape* and the newly renovated rotunda was not the final chapter of Witschey’s tenure at the Museum. The SMV faced difficult challenges ahead as the nation slumped into an economic recession and experienced the most devastating foreign terrorist attack on American soil in modern history.

SMV Back in Business when Business is Slow

Shortly after the excitement died down on Broad Street, the Science Museum received a troubling update from state government. In December 2000, the General Assembly approved a hiring freeze across all state agencies.¹⁶⁹ The move was intended to mitigate the effects of a slowing national economy, but it ultimately prevented the Museum from increasing its paid staff immediately after expanding the square footage of exhibit space in the Station.¹⁷⁰ By 2002, the Museum’s staff dropped “25 percent below [the] authorized level,” resulting in an “approximately 16 percent” decrease in employees since the freeze was implemented.¹⁷¹ The SMV received more bad news in May 2001 when the front desk reported a slow in attendance.¹⁷²

After a successful spring run of the blockbuster exhibit *Invasion of the Dinosaurs*, the Museum could not entice enough visitors to come back to Broad Street after 75,000 had seen the animatronic giants.¹⁷³

The attendance problem continued to worsen following the terrorist attacks on September 11, 2001. Museums across the country experienced a decrease in visitors after nineteen al-Qaeda terrorists hijacked four U.S. commercial airliners and flew them into several high-profile targets on American soil.¹⁷⁴ Witschey informed readers of the 2001-2002 annual report that the Science Museum suffered less than “some of our sister institutions,” yet still experienced a drop in attendance as Americans opted to travel less in the wake of the attacks.¹⁷⁵ The Museum hung American flags in the Station’s rotunda “to salute those lost” on September 11th.¹⁷⁶

The SMV attempted to rebound from the lull in visitation by hosting beloved community events and opening new exhibits and films. The popular annual Model Railroad Show returned to Broad Street in November.¹⁷⁷ At the event, William H. Leighty, chief of staff to Governor Mark Warner, presented a steam engine model to Walter Witschey.¹⁷⁸ The gift complemented the *On the Move* exhibit behind the Station. By June 2002, the Museum opened *Space Station*, a new exhibition that included a Micro-Gravity Drop Tower.¹⁷⁹ The mechanism “consist[ed] of a shoebox-sized experimental package that [was] lifted 40 feet to the top of the Barbara and William B. Tahlhimer Jr. Hall of Science Exploration” and “dropped, falling back to visitor level in 1.35 seconds.”¹⁸⁰ Whatever contents were included inside “the package” experienced “weightless freefall” with a gravity level “near zero.”¹⁸¹ The Museum also welcomed several travelling exhibits in 2002, including *Titanic Science* and *Psychology: It’s More Than You Think!*¹⁸² The Dome theater showed the popular IMAX films *Titanica* and *China: The Panda Adventure*.¹⁸³ Meanwhile, the Virginia Aviation Museum was added to America’s Aviation Adventure, “a history trail comprised of 15 aviation centers from Kitty Hawk, N.C. to Baltimore.”¹⁸⁴ The designation attracted much-needed attention to VAM which, like the SMV, experienced a decline in visitation.

Amidst the Museum’s attempts to bring more people to Broad Street Station, Walter Witschey entered into negotiations with a German company located in Aicha vorm Wald to design a massive, to-scale granite sculpture of the Earth and its moon.¹⁸⁵ The 29-ton ‘Earth,’ situated in front of the Museum, would float on top of a thin layer of water running across its base.¹⁸⁶ The smaller ‘moon’ would be located off to the side of the Station at a distance

proportional to the actual 238,900 miles that separates the two heavenly bodies in space. Once installed, guests would be able to turn the stone sculptures “as though [they] weighed nothing at all.”¹⁸⁷ Construction of the balls and their bases back in Richmond began in 2002 and was finished in time for a dedication ceremony on January 28, 2003.¹⁸⁸ “With the outside temperature hovering near 8 degrees F,” Governor Warner helped Witschey “cut the ribbon to open the Mary Morton Parsons Earth-Moon Sculpture,” referred to colloquially as the ‘kugel,’ the German word for ‘ball.’¹⁸⁹ The iconic stone that sits outside Broad Street Station today is not, however, the one that Warner and Witschey christened on the cold winter morning. The original Kugel was made of a dark South African granite that soon “developed a crack” which “eventually made the shape not perfectly spherical.”¹⁹⁰ The defect “caused the massive stone to simply sit in its cradle,” necessitating its replacement.¹⁹¹ Today guests can once again turn the giant stones with their hands and enjoy a unique scale model of the Earth and its moon.

Conclusion: Walter Witschey’s Final Years as Director of the SMV

A year after the Museum dedicated the Mary Morton Parsons Earth-Moon Sculpture, Trustees and Foundation Directors launched “a program presenting new science and new visitor opportunities at Virginia’s flagship science center.”¹⁹² The plan outlined a series of changes to the Broad Street campus in addition to the development of new satellite science centers in Northern Virginia, Bristol, and Harrisonburg.¹⁹³ Witschey and other members of the Museum’s administration hoped that the projects would continue transforming the SMV into a statewide system of informal science education.¹⁹⁴ Building more sites around the Commonwealth would fulfill Witschey’s vision of a science center within fifty miles of every Virginian. However, he would announce his retirement before the plan could be executed in full. Through a combination of financial hurdles and unfortunate timing, the Museum’s *Blue Print for Broad Street Station Campus* was a grand idea that could not be realized.

The official purpose of the project was to “create the opportunity for visitors to take new journeys...of Science Exploration and Discovery.”¹⁹⁵ A series of five major changes would allow the Museum to achieve its goal, including “new exhibitions in four existing galleries, and [the] creation of two new gallery spaces.”¹⁹⁶ The project also called for the construction of “galleries in the [still unfinished] Discovery Park of Science.”¹⁹⁷ One of the most ambitious steps

in the program was the relocation of the Virginia Aviation Museum to Broad Street.¹⁹⁸ While the Virginia Aeronautical Historical Society and SMV officials once believed that visitors to VAM “would include many commercial air travelers on layover,” changes to the airport’s operations eliminated the existence of “layover passengers or other passengers with time to visit.”¹⁹⁹ To “increase the number of attractions at the Broad Street Campus” and “significantly increase attendance at the Virginia Aviation Museum,” the facility needed to be moved to an accessible and visible location on “Museum-owned property east of Leigh Street.”²⁰⁰

Around the time of the *Blueprint*’s publication, the SMV made firm commitments in Northern Virginia to establish a science center.²⁰¹ The building would be located “on the Occoquan River” and “include several exhibition galleries, a large format film theater and other amenities.”²⁰² The Belmont Bay Science Center, as it came to be called, was designed to “fully support school groups and tourists” who frequented the nearby shopping center Potomac Mills and the nation’s capital in Washington, D.C.²⁰³ The Museum scheduled the Center to open in 2005, however, the “cost of construction” steadily rose as the years passed, preventing the SMV from acquiring enough state funding to complete the facility on time.²⁰⁴ Witschey continued to work to get the Center off the ground while engaging in conversations with representatives from Bristol and Harrisonburg to establish more satellite locations.²⁰⁵

Despite the difficulties in Northern Virginia, Witschey and his staff experienced a boost of confidence when the Museum received news that Broad Street Station was chosen to host the 2005 annual conference of the Association of Science and Technology Centers (ASTC).²⁰⁶ The “international conference” was expected to bring “1,600 science center professionals from around the world” to Richmond, “provid[ing] a rare and exciting opportunity to showcase the Science Museum...to” colleagues in the museum field.²⁰⁷ The good news inspired private donations in excess of \$100,000 to “support...the Museum’s preparations for the ASTC conference.”²⁰⁸

In the director’s letter for the 2003-2004 Annual Report, Witschey informed readers that the event “accelerates our program, a focused effort called the *Blueprint for the Broad Street Station Campus*.”²⁰⁹ Indeed, the SMV did host a successful conference in October 2005. International travelers laid eyes on the vast improvements to Broad Street Station, demonstrating how far the building had come since the Museum opened the Discovery Room in 1977. However, preparations for the conference took its toll on the staff which continued to shrink in

the worsening economic climate.²¹⁰ They were stretched ever thinner to carry out daily operations as the country neared the Great Recession of 2008.²¹¹

Two years prior to the financial fallout, Walter Witschey announced his desire to retire effective June 1, 2007.²¹² He intended to spend the next chapter of his life as a Professor of Anthropology and Science Education at Longwood University in Farmville, Virginia.²¹³ The timing of his departure was unfortunate for the Museum's *Blueprint*; however, his fifteen years at the SMV left a lasting mark on the institution. Today, when visitors walk up to the Station, they pass by the giant kugel, perhaps giving it a push to watch the stone sculpture spin. As guests enter the rotunda, they can look up at the exhibits that await them and ride the glass elevator up to the second and third floors, looking down at other visitors below. They can explore the train cars behind the Station and walk under the butterfly train sheds that Paul Knappenberger tried so hard to convince the General Assembly were worth preserving. Though the SMV may not directly serve as many Virginians as Witschey had hoped, he helped build upon the foundation that Knappenberger established and readied Broad Street Station to meet some of the challenges unique to the twenty-first century. With his retirement, the Museum once again needed to find a talented replacement that could handle the educational, political, and economic demands on Broad Street.

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