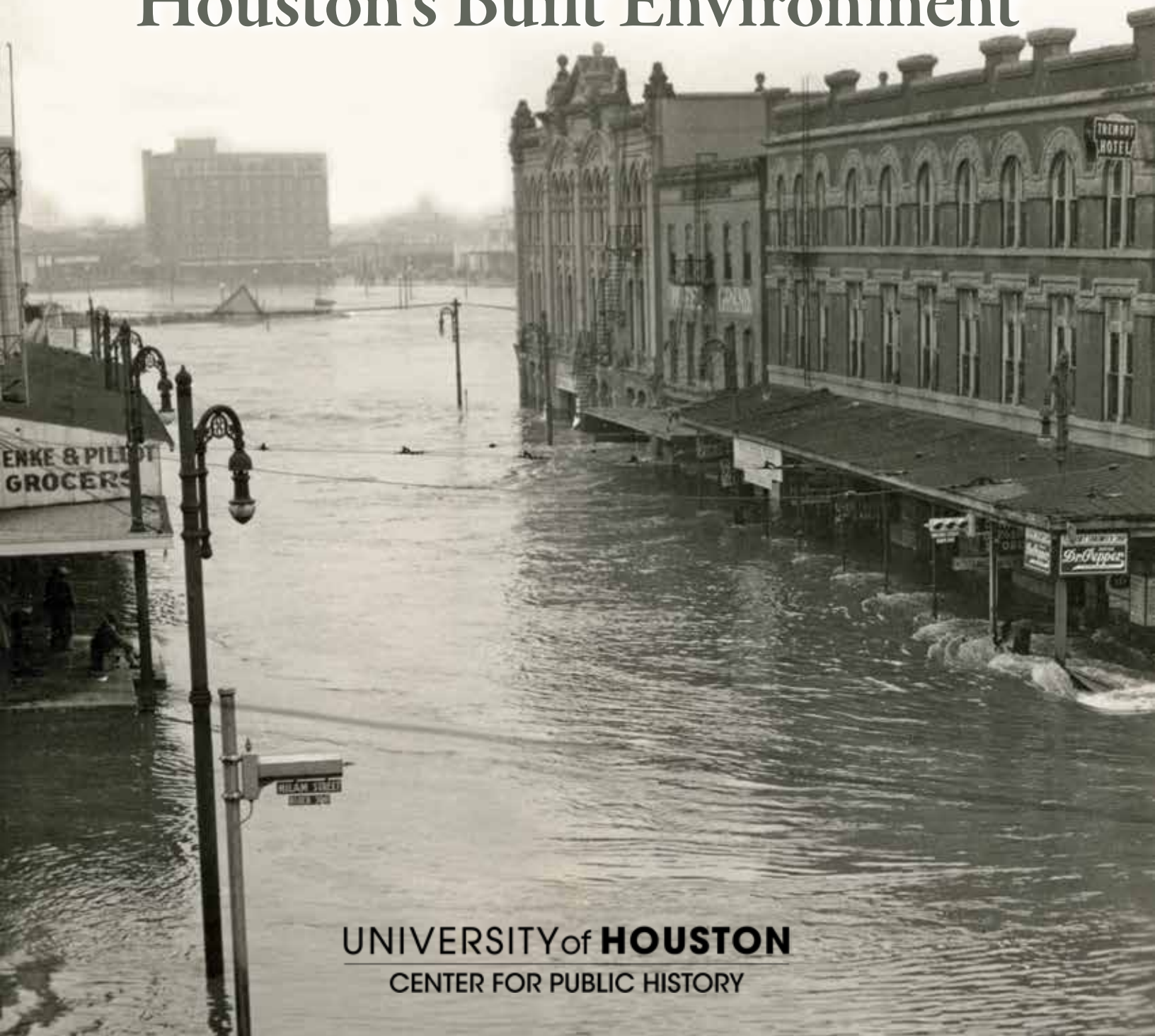
HOUSTON history
PUBLISHED BY WELCOME WILSON HOUSTON HISTORY COLLABORATIVE
VOLUME 15 • NUMBER 1 • FALL 2017

Wrecks and Redemption: Houston's Built Environment



UNIVERSITY of HOUSTON
CENTER FOR PUBLIC HISTORY

Short-term Memory Loss of Long-term Needs

Debbie Z. Harwell, Editor

When we conceived the idea for this issue almost a year ago, we planned to focus on examples of industrial accidents and environmental improvement. That was before Harvey hit. Those of us who are Houston natives, or almost natives, are no strangers to flooding but not of this magnitude. The *Washington Post* reported that Houston and Southeast Texas received 19 trillion gallons of rain, or a trillion more gallons of water than fills Chesapeake Bay, the largest U.S. estuary.

Harvey was our third 500-year rain event in less than three years and, in the end, was deemed a 1,000-year storm. These are misleading terms that actually indicate the chance, 1 in 500 or 1 in 1,000 respectively, of such an event occurring in any given year rather than how often. Floodplains based on 100-year events are similarly confusing and, perhaps, cause us to be somewhat complacent about our risk. No wonder we frequently hear, "I don't need flood insurance. I'm not in the 100-year floodplain"; or, "I didn't flood in Allison, so I don't need to worry."

What people may not realize is that where floodplains stood when they bought their home could have little relevance to those lines today. Take Meyerland, for example. In the 1950s and 1960s it did not see the levels of rising water it has experienced recently, flooding some homes three times in twenty-eight months. Yes, this occurred with Harvey in part due to the record rainfall, but it is also due to development in other areas of the region that created more run-off and prevented natural water absorption, redefining the area's susceptibility to a 100-year flood.

In 1929 Houston experienced major flooding that was seemingly forgotten until another catastrophic flood followed in 1935, prompting Houston to establish the Harris County Flood Control District. The U.S. Congress passed the Rivers and Harbors Act of 1938 that included funds for Addicks and Barker Reservoirs, opening in 1945 and 1948 respectively. The Weather Research Center reports Houston has had about 175 significant floods since 1837 (120 of them since the reservoirs opened). Experts have warned Houston that another catastrophic flood was coming, just as they had warned the levees would break in New Orleans prior to Hurricane Katrina, but government entities did not adequately address how to prevent future flood damages.

As a city and as a country we seem to suffer from short-term memory loss. Our memory of the flood is wiped out not by old age but by the next big news story, or even the next tweet. Past floods have similarly faded from the collective memory (until it happens again), with few willing to spend money on the necessary infrastructure to produce real change.

If you flood, you don't forget, though. I lived in a house in Beaumont that flooded twice in the 1980s. The first time I was home with our four children ages eleven to two when rapidly rising water started pushing mud and mulch through the weep holes about 6:00 p.m. We scrambled to put things up while keeping my toddler out of the water. Still at work, my husband contacted the fire department who came to get us as night approached. Leaving our dog behind, we waded in water half way up my chest, and up to the shoulders on the older kids, to a high-water vehicle waiting nearby. Some neighbors evacuated by boat. During Harvey, as our oldest daughter sent pictures of her and her family being evacuated from their Friendswood home and we saw our neighbors' homes go under water in Kingwood, it brought back many painful memories. I can only imagine how people with water in their homes from Harvey (and the time before that, and the time before that…) must feel.

Other articles in this magazine also reflect the importance of remembering our history so we can develop sound policy that enables the people in our region to live healthy, happy, productive lives. The Frost Town archeological dig illustrates the changes that occurred as Houston's first suburb transitioned from a predominantly German neighborhood to an African American and then Mexican American community, followed by a railroad yard and a section of road right-of-way. Over the years, decisions on whether or not to provide infrastructure to the area dictated the (mis)fortunes of those residing there, whether citizens or businesses.

The articles on the Texas City Disaster and a deadly 2008 crane collapse demonstrate the importance of protecting safety in the workplace, both for those who labor there and those nearby. The Air Alliance Houston piece reminds us of instances of our most reckless pollution, like burning car batteries at an incinerator near the Astrodome in the 1970s and industrial emissions today, to our efforts at redemption by the nonprofit sector to ensure we monitor and protect air quality going forward. Likewise, the article on Habitat for Humanity illustrates how everyone benefits when more people get a chance to share in the American dream of homeownership.

Historians often say that we cannot know where we are going until we know where we have been. We know where Houston has been. It is an amazing city with tremendous resilience and a giving spirit that has too often found itself under water. We cannot let our short-term memory fail us—not about flooding, pollution, industrial accidents, or anything that puts us at risk. If we have to consider adding regulations to protect against flooding and over development in certain areas or spending more to improve our infrastructure, then we must be open to that if we want Houston to continue to grow and prosper in the future.

HOUSTON history
PUBLISHED BY WELCOME WILSON HOUSTON HISTORY COLLABORATIVE
VOLUME 15 • NUMBER 1 • FALL 2017

Wrecks and Redemption: Houston's Built Environment

EDITORIAL POLICY
Houston History is published twice a year by the Welcome Wilson Houston History Collaborative in the Center for Public History at the University of Houston. We welcome manuscripts, interviews, photographic essays, and ideas for topical issues on the history and culture of the Houston region, broadly defined. Please send correspondence to *Houston History*, University of Houston, Center for Public History, 3623 Cullen Blvd., Room 320, Houston, TX 77204-3007 or email *HoustonHistory WWE@uh.edu*. Phone 713-743-3123.

COVER PHOTO: *This Houston Public Works photo looking north up Milam with the Tremont Hotel on the right side and Henke and Pillot Grocers at left is not dated but is likely from 1935 based on a comparison to video footage of that flood.*
Photo courtesy of the Houston Metropolitan Research Center, Houston Public Library, RGA21a-021.

Table of Contents

FEATURES:

DEPARTMENTS:

CULTURE HIGH AND LOW

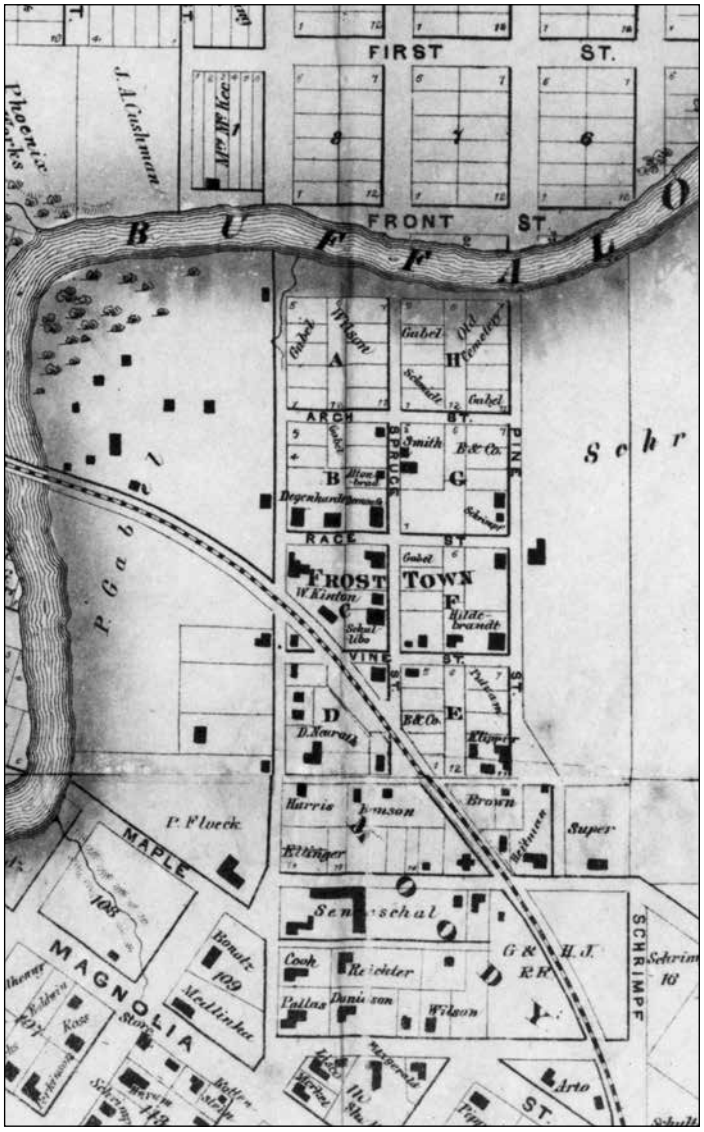
Seeing Frost Town from the bottom up:

Using Archeology and Archives to Reconstruct a Forgotten Houston Neighborhood

By Jason W. Barrett, Douglas K. Boyd, and Louis F. Aulbach

Houston is a dynamic city with an amazing history. The stories written about its past, however, generally focus on the important people and big events that transformed the wilderness along Buffalo Bayou into a modern metropolis. The Allen brothers, steamship and railroad commerce, cotton and petroleum production, and space exploration are a few of the important chapters that define Houston and its contributions to U.S. and world history, but these stories view history from a top-down perspective. Alternative views that look at Houston history from a bottom-up perspective are equally important, though harder to find. Examining history from various perspectives, including those of the working-class people who helped build and shape the city, requires plowing through dusty archives and online databases, compiling information from seldom-used public records, and even digging into the ground beneath the city streets.

The demolition, removal, and rebuilding of an old roadway north of downtown Houston by the Texas Department of Transportation (TxDOT) is providing archeologists and historians an opportunity to intensively investigate one of Houston's earliest urban neighborhoods from the bottom up. Triggered by state and federal laws protecting cultural resources, TxDOT initiated a major effort to conduct archeological excavations in the eight-block area once known as Frost Town, recovering remnants of the community and discovering a lost part of Houston's heritage using archeology, historical records, and oral history. This multidisciplinary approach is revealing amazing details about the evolution of this forgotten residential community, located just a half mile east of Allen's Landing. The people who resided in Frost Town were common working-class folks whose contributions proved vital to the development of modern Houston. Although seldom told, their stories represent an important part of our shared heritage.



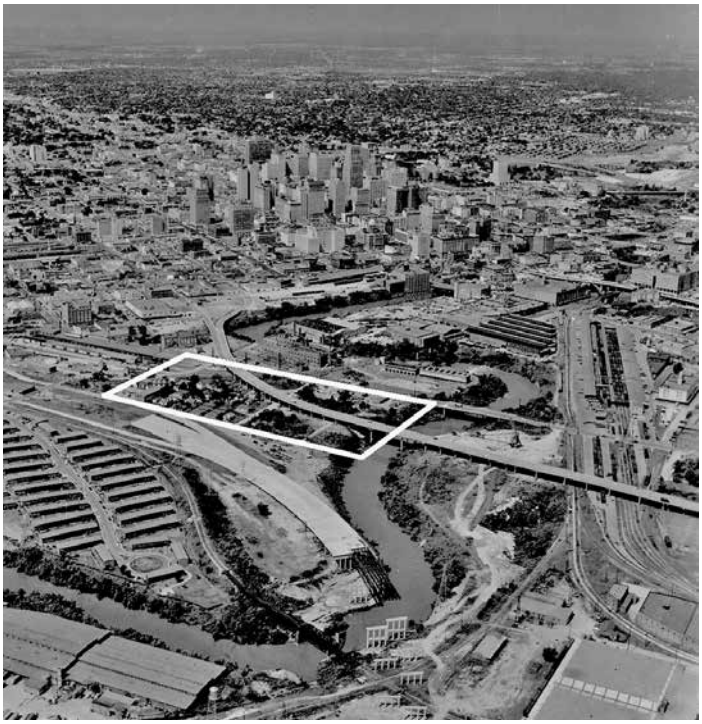
A section of the 1869 "City of Houston" map by W. E. Wood shows the eight-block Frost Town area with railroad tracks curving across the southern end. Located along the south bank of Buffalo Bayou, the cemetery (Block H) was apparently washed away by the 1880s or 1890, a victim of natural erosion and stream migration exacerbated by channel straightening and widening done by the U.S. Army Corps of Engineers.

Photo courtesy of Houston Area Digital Archives, Houston Public Library.

Brief History of Early Frost Town

Houston owes its existence to Buffalo Bayou and steamship transportation. Allen's Landing, at the confluence of White Oak and Buffalo Bayous, became the turning basin and loading dock for steamship commerce soon after the city's founding. From there, many paddle-wheel steamers transported a wide variety of materials into and out of the newly formed Republic of Texas.

The area that became Frost Town is situated within a prominent horseshoe bend of Buffalo Bayou about one-half mile downstream from Allen's Landing. A Republic of Texas Army veteran, Jonathan Benson Frost brought his family and built a house and a blacksmith shop on a small parcel of land adjacent to Buffalo Bayou in 1836. By 1837, Jonathan had purchased fifteen acres around his home from brothers Augustus and John Kirby Allen. Frost only lived in Frost Town for a short time, however; dying of cholera in September 1837, he was one of the first interments in what became the Frost Town Cemetery. After Jonathan's death, his brother Samuel M. Frost, also a Republic of Texas Army veteran, took over his estate. In June 1838, Samuel laid out



Looking southwest, Frost Town is outlined near the construction site of the Highway 59 Bridge over Buffalo Bayou in November 1957.
Photo courtesy of Texas Department of Transportation.

an eight-block area for the Frost Town subdivision and began to actively promote and sell lots in the community. One of the earliest known written references to the subdivision is an advertisement for four city lots in "Frost Town" that appeared in the September 25, 1839 issue of the *Texas Telegraph and Register*, and the first illustration of the community appears on a map of Houston published that same year.

Starting in late 1839 and continuing through the 1840s, Germans began settling in the Frost Town area, with about seventy-five German families and single men living in and around there by the late 1840s. German colonists, passing through Houston and headed for the interior of Texas, often found friends and relatives in Frost Town and, instead of continuing on, chose to remain in the settlement. They blended easily with several Irish families who also came to establish a community on the elevated and well-drained curve of Buffalo Bayou. But what brought Germans to Texas and Houston and why in such large numbers, compared to those from other countries?

Europe, in the aftermath of the Napoleonic wars, experienced profound social changes. The decline of the guild system and the rise of industrialization and free trade laws created an economic crisis among the artisans and the handicraft industries. High population density and the scarcity of arable lands caused unrest and diminished opportunities for the agricultural communities while the potato famine that ravaged Ireland also struck the continent of Europe, including Germany. Popular unrest brought the specter of revolution, and when the German state governments sought to bolster their armies, many Germans immigrated to escape the military draft.

During the 1840s, therefore, the flow of Germans into Texas surged with the attractive prospect of escaping European society's social barriers. They perceived Texas as a land of total freedom where one could live independently and have a better life. German writers inspired an overwhelming spirit of adventure and curiosity about Texas. A. Korduel wrote in his 1846 book that "there was a paradise on earth named Texas." And, to top it off, many German communities granted financial support to those wishing to emigrate.

Each immigrant who settled in Frost Town had a unique story, and it is possible to generalize too broadly. Nevertheless, the Germans who settled in Frost Town had a well-deserved reputation as an industrious, hardworking, frugal, and civic-minded people. Many of them were skilled tradesmen, craftsmen, and working-class laborers who went about their business and became the unheralded fabric of the city.

Frost Town Through Time

The first major change for Frost Town came along with a new form of transportation—the railroad. The Galveston, Houston, & Henderson Railroad reached the area in 1853, and by 1865 the Galveston & Houston Junction Railroad (G&HJ) built the first railroad bridge across Buffalo Bayou. The G&HJ railroad tracks cut across the southern end of Frost Town, and this effectively separated Frost Town from downtown Houston, only a few blocks away. The tracks became a physical and perceptual barrier, separating the wealthy commercial district from the working-class neighborhood. The railroad also set in motion two trends that continued over the next century—the industrialization of the surrounding area and the socioeconomic decline of the Frost Town neighborhood.

As often happens in large cities, the ethnicity of the community changed over time in response to local conditions and broader historical events. After the Civil War, African American freedmen began moving into Houston and other urban centers hoping to find steady work, and many settled in Frost Town. After the revolution in Mexico during the 1910s, thousands of Mexicans migrated northward in search of jobs, and many came to Houston. By the 1940s, the old Frost Town community, which was relatively inexpensive compared to other areas, was predominantly Hispanic and known as *El Barrio del Alacrán* (Scorpion neighborhood). Because of its proximity to industrial and transportation facilities providing good jobs—cotton compresses, iron works, ice houses, the MK&T Railroad terminal, and steamship loading docks along the bayou—Frost Town offered urban laborers a logistically advantageous spot to settle.

The ultimate demise of the neighborhood began in the mid-1950s when most of the residences were demolished to clear right-of-way for construction of the original Elysian Viaduct Bridge. Houston experienced rapid economic growth and urbanization throughout the decade, and the viaduct connected the downtown business district with the growing industrial sector north of the bayou. A few families continued to live in small, scattered clusters of houses for the next few decades, with the last house removed in the 1990s.

Houstonian Sergio Garcia examines an artifact during a visit to the Frost Town archeological dig in August 2016. Born in 1931, Garcia grew up in a house at 10 Spruce Street in El Barrio del Alacrán. A month later authors Aulbach and Boyd conducted a videotaped interview with Mr. Garcia, who provided valuable information and fascinating stories about growing up there.
Photo courtesy of Prewitt and Associates, Inc.

TxDOT and the Elysian Viaduct Bridge Replacement Project

The TxDOT project to reconstruct the Elysian Viaduct Bridge from Brooks to Commerce Street that is currently underway was initiated to improve safety by replacing the aging structure, and to enhance connectivity and mobility in an area experiencing rapid development and population growth. Designed to modern safety standards, the new structure will be somewhat wider and feature a sidewalk between Runnels and Ruiz Streets to accommodate pedestrian use.

As part of the environmental process for this project, TxDOT initiated archeological investigations at the site of Frost Town, where no traces of Houston's earliest neighborhood remain above the ground. Below the surface, however, archeologists are discovering fascinating new information about the city's early history.

The Frost Town Archeological Project (FTAP)

The first archeological survey of Frost Town was conducted in 2004 by Prewitt and Associates, Inc. (PAI) and its archeologists who discovered dozens of intact features and artifacts associated with the former community. Based on these findings, TxDOT and the Texas Historical Commission agreed in 2005 that the site was eligible for listing on the National Register of Historic Places and that it met the state's criteria for designation as a State Antiquities Landmark. The road project then stalled out for nearly a decade but resumed in 2015 when TxDOT again contracted with PAI to conduct additional investigations.

In 2016, TxDOT and PAI launched a large-scale data recovery effort that included both mechanical trenching and hand excavations. Archeologists focused on identifying intact cultural features and activity areas, of which the majority are associated with residential households. Discoveries to date include: brick, wood, and concrete-block house piers; a brick chimney base; vertical lightning ground rods; brick sidewalks; post holes and posts; concrete structure floors; underground cisterns; buried utilities (steel water lines, ceramic, cast iron, and concrete sewer lines); brick-lined storm sewer lines; pet burials; and probable privy pits filled with trash. Analysis of these cultural features and identification of the thousands of recovered artifacts is currently underway. A second phase of archeological fieldwork will follow demolition of the bridge and will focus on excavating areas that were inaccessible with the bridge in place.

Accompanying the field investigations, PAI is completing targeted archival research focused on individual blocks, lots, households, and occupants of the old Frost Town community. This research involves writing building site histories using the data compiled from a variety of sources, including U.S. Census records, ad valorem tax records, city directories, and Houston city records. Archives such as these are often scattered among numerous repositories throughout Texas and tracking them down can be as thrilling a discovery as the rarest of artifacts. Once compiled, these building site histories will enable archeologists to better interpret the many architectural and domestic features recorded in their excavations, providing much needed context for the material culture recovered across dozens of individual households.

One important FTAP component is that TxDOT has a cooperative agreement with the Houston Archeological Society (HAS) that allows HAS members to participate in the archeological investigations as part of the agency's public outreach program. In 2016, HAS members volunteered almost 300 hours of personnel time on 26 days over a five-month period, with some 49 members participating. They helped screen artifact-rich deposits that were machine-excavated from selected areas, resulting in the recovery of many thousands of important artifacts.

What Can We Learn from the Archeology and Archival Records?

Although more field investigations are still to come, the FTAP has already gathered information on 865 archeological features, taken more than 5,000 photographs to document the findings, recovered more than 75,000 artifacts, and compiled detailed property and occupant histories on dozens of individual building locations depicted on various

Houston Archeological Society members screen excavated fill to recover Frost Town artifacts. The 1950s Elysian Viaduct Bridge can be seen on the right and the roof of Minute Maid Park is in the background. Photo courtesy of Prewitt and Associates, Inc.

These photographs show an unusual feature being excavated at the Frost Town site. The image at left of a large wooden barrel, buried to serve as a water cistern, shows the exterior of the barrel with vertical wooden slats and horizontal iron barrel hoops to hold it together. The interior and exterior of the barrel were coated with tar to make it watertight. About 5.5 feet wide and at least 4 feet deep, it held at least 680 gallons of water. The photo at right shows the feature with part of the barrel wall and half of the fill removed. The barrel was filled with layers of trash and sediment, and the diagnostic artifacts were manufactured between 1898 and 1925, suggesting the cistern was abandoned and filled soon after 1925.

Photo courtesy of Prewitt and Associates, Inc.

historical maps. So what do we hope to learn from these mountains of information?

U.S. Census records for Frost Town show that its history can be divided into three major occupational episodes—the German Period from ca. 1830s to 1890, the African American Period from 1890 to 1920, and the Mexican/Hispanic Period from 1920 through the 1950s. These demographic periods are a convenient way to organize the archival and archeological information for comparative analyses. Within each period archival data will be used to create a snapshot of the community and to explore the similarities and differences in character observed among individual households. Houston city directories and ad valorem tax records from the late nineteenth and early twentieth centuries provide specific, idiosyncratic information on household residents. For example, tax records provide property value data that is useful for comparing relative household wealth, while city directories provide information on people's jobs and the businesses that existed in and near the neighborhood.

Once archeologists complete their field investigations, they will examine artifacts linked to specific households and city blocks, and compare the household and block assemblages within time periods and between time periods. This will enable us to document social and economic changes that occurred in Frost Town over time, and link those changes to broader historical events that impacted the community and Houston. When the archival records and archeological evidence are combined, we will be able to provide some of the first detailed descriptions of the Frost Town community as it evolved from the 1830s to the mid 1950s.

Buried Bottle Alignments—A Nineteenth-Century German Decorative Tradition

Archeological features are an assemblage of elements representing the remnants of human activity. Their interpretive meaning derives from composition and context. Two features found at Frost Town have been classified as "buried bottle alignments," and they provide a good example of what can be learned from archeological features that are carefully excavated and have good historical contexts. These bottle alignments consist of numerous glass and ceramic bottles in linear arrangements, with the bottles spaced only a few inches apart and buried upside-down so that only the bottom half of each bottle protruded above the ground.

The best preserved of the two features, associated with a house located in the western half of Block F, was initially

found in 2015 during slow mechanical stripping using a large track hoe with a five-foot-wide bucket. When the first upside-down bottle was hit, the machine work stopped, and archeologists switched to careful hand excavations and began uncovering a long line of glass and ceramic bottles. Archeologists returned in 2016 to fully excavate this line of buried upside-down bottles over a linear distance of about 25 feet. The bottles formed two lines in an L-shaped pattern. One end of the bottle line tied into an alignment of hand-molded bricks, with each one laid out stretcher (lengthways) with their ends touching. This brick alignment also formed an L-shape and tied back into the other end of the bottle alignment. The brick and bottle lines formed a slightly lopsided square enclosure measuring 12.5 x 12.5 feet. The enclosure was found alongside a row of brick pier pads that marked the outer edge of a house built in the 1880s. Based on the building's location and orientation within the city block, the bottle and brick enclosure was located in the yard behind the house.

Archeologists recovered forty complete or broken-in-place bottles from the feature. A few sections of the bottle alignment had been displaced by later water and sewer line installations, and another eight to ten bottles were found in disturbed sediments nearby. Ceramic bottles that once contained ale dominate the assemblage, along with several glass bottles that once held wine, liquor, and beer, and a few large ceramic mineral water bottles. Each bottle is technologically and stylistically typical of glass and ceramic containers from the 1880s to ca. 1900, but the most diagnostic of these are:

- Two aqua glass bottles with the embossed markings "ORIGINAL BUDWEISER" and the "CCC" logo. This bottle contained Budweiser beer made by C. Conrad and Company of St. Louis, Missouri, between 1876 and 1883.
- One ceramic mineral water bottle with the stamped logo and markings: KRONTHALER MINERAL QUELLEN / AUGUST THIEMANN / [illegible]. This bottle held mineral water from the Kronthal Springs in Germany that was shipped to America sometime after the Kronthal Company was created in 1875.
- Three ceramic mineral water bottles with the stamped logo and markings: APOLLINARIS BRUNNEN / GEORG KREUZBERG / AHRWEILER / RHEINPREUSSEN. They contained mineral water from the Apollinaris Spring discovered by Georg Kreuzberg in 1852 and were shipped to America sometime in the last quarter of the nineteenth century.

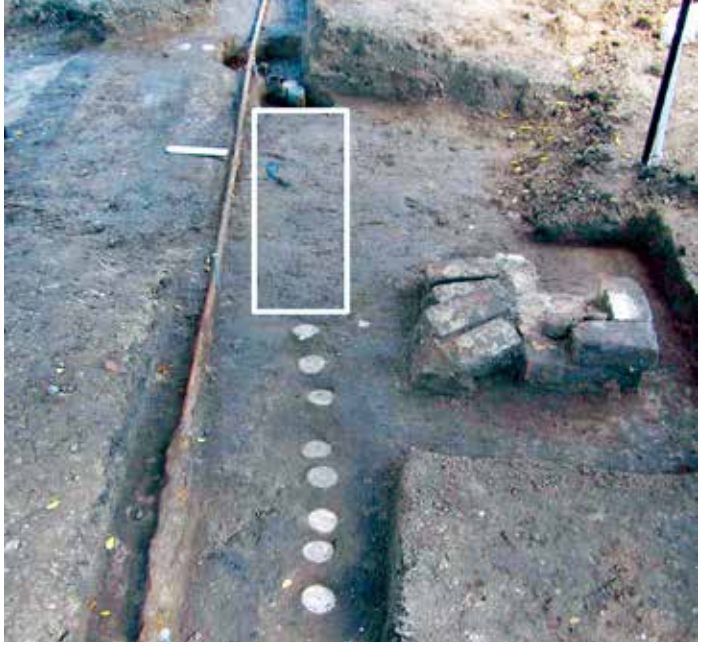
Archeologists recovered these fourteen glass and ceramic bottles from one segment of buried bottle alignment Feature 573. These include four glass bottles (2 liquor, 1 wine, and 1 beer) and ten ceramic bottles (5 large mineral water or seltzer bottles and 5 two-toned, stoneware ale bottles). Many of these bottles have diagnostic markings indicating the products they contained, the companies that made the products and where.
Photo courtesy of Prewitt and Associates, Inc.

A clear glass medicine bottle with embossed label: "I. LEWYN / GERMAN PHARMACIST / HOUSTON, TEX." Isadore Lewyn, a German-born pharmacist, owned and operated the Lewyn Drug Store in downtown Houston. In 1916 he wrote a short pharmacy journal article indicating that he placed placards in his store informing his clients he spoke German and Spanish. This artifact provides evidence that some of the German Frost Town residents did business at Lewyn's.
Photo courtesy of Prewitt and Associates, Inc.

- Two ceramic ale bottles with stamped circular logo and markings: "PORT DUNDAS POTTERY" and "GLASGOW." Founded in 1816, Port Dundas Pottery produced these two-tone, salt-glaze bottles sometime after 1856. Probably containing beer, they were shipped from Scotland to America in the last quarter of the nineteenth century.
- Two ceramic ale bottles with stamped oval logo and markings: "GROSVENOR" and "GLASGOW." These two-tone, salt-glaze bottles produced by Bridgeton Pottery owned by Frederick Grosvenor from 1869 to 1899 probably contained beer that was shipped from Scotland to America in the last quarter of the nineteenth century.

Based on archeological evidence and archival research, the Frost Town buried bottle alignments appear to represent ornamental yard art, often used to form the borders of walkways and flower gardens. Both Frost Town bottle features were identified in the yard areas of nineteenth-century German immigrant households, and the authors know of only one other similar archeological feature documented anywhere in Texas and it was also found in Houston. It was excavated in the 1990s about four blocks away from Frost Town in the yard area of another German immigrant household, located where Minute Maid Park now sits.

It is no coincidence that all three of the known examples of buried bottle alignments that have been archeologically investigated in Texas are associated with German households, which have a strong ethnic tradition in Texas. The practice originated in the early 1800s but continued well into the twentieth century. We have now collected numerous oral histories in which people recall seeing buried bottles used as garden borders at households occupied by their



The section of the buried bottle alignment Feature 573, as seen in 2016, shows inverted bottles in a long line with a curve at the end. The white box shows where fourteen bottles were removed in 2015. To the right of the bottle line is a house pier constructed of hand-molded bricks, which is in a line of other house piers from a nineteenth-century house occupied by a German immigrant family. Someone buried an iron pipe water line running parallel to the back wall of the house years later disturbing the bottle line.

Photo courtesy of Prewitt and Associates, Inc.

German ancestors in more than a dozen Texas counties.

The buried bottle alignments at Frost Town provide new data for archeologists to consider with respect to these unusual features. We still have much to learn about the Old World origins of this tradition, how long it endured among immigrant communities in the Americas, and the circumstances of its ultimate demise.

Continued Research at Frost Town

The use of large excavation machines to carefully strip away deposits and expose large areas has proven to be a very effective means of finding features at the Frost Town site, as evident by the number and diversity of features uncovered so far. This work will continue as the FTAP moves into the next phase following bridge demolition. As with any large archeological project, the hard work for the FTAP research team will begin once all of the artifacts and data have been extracted from the ground. Analysis of archeological data is a slow and meticulous process, and the researchers will face many challenges as they prioritize their research questions and decide how best to study the many Frost Town features and artifacts to efficiently and effectively address those questions.

Another challenge will be how to best utilize the historical documents and artifacts to tell the Frost Town story from the bottom up, thus revealing the evolution of the community from the various perspectives of the common folks who lived and labored there over one and a half centuries. Our ultimate goal is the creation of a revised and more comprehensive history of early Houston, telling Frost Town's story to a contemporary audience, many with little previous knowledge of or connection to the city and its history. The telling is likely to assume varying formats, from technical reports and professional journal articles, to documentary films, popular books, magazine articles, public lectures, school curriculum, museum displays, and social media postings. Ultimately, we will measure the project's success by whether or not the average Houstonian driving along the new Elysian roadway is aware of the amazing history that happened right there on the banks of Buffalo Bayou. Rather than being a forgotten part of the city's history, the contributions made by Frost Town's working-class residents to the growth of modern Houston deserve recognition. Frost Town was one of Houston's first residential communities, and its history encapsulates the city's diverse heritage as well as its complex social and economic evolution.

Many Frost Town houses were removed when these railroad tracks were built around 1926 as part of the Missouri, Kansas, and Texas (MK&T or Katy) Railroad Terminal in Frost Town Block D, and archeologists found intact remains of those houses below the tracks. The large boards in the red-flagged area near the center mark the locations of two underground metal storage tanks that held some form of liquid petroleum, probably a fuel or lubricant for railroad cars.

Photo courtesy of Prewitt and Associates, Inc.

Louis F. Aulbach is a native Houstonian, historian, author, and publisher. Among his many publications, *Buffalo Bayou, An Echo of Houston's Wilderness Beginnings* delves into the history along Houston's most famous stream. He has written on Camp Logan and produced best-selling guides to West Texas rivers. He has served on the Harris County Historical Commission and is a member of the Texas Historical Commission's Archeological Stewardship Network.

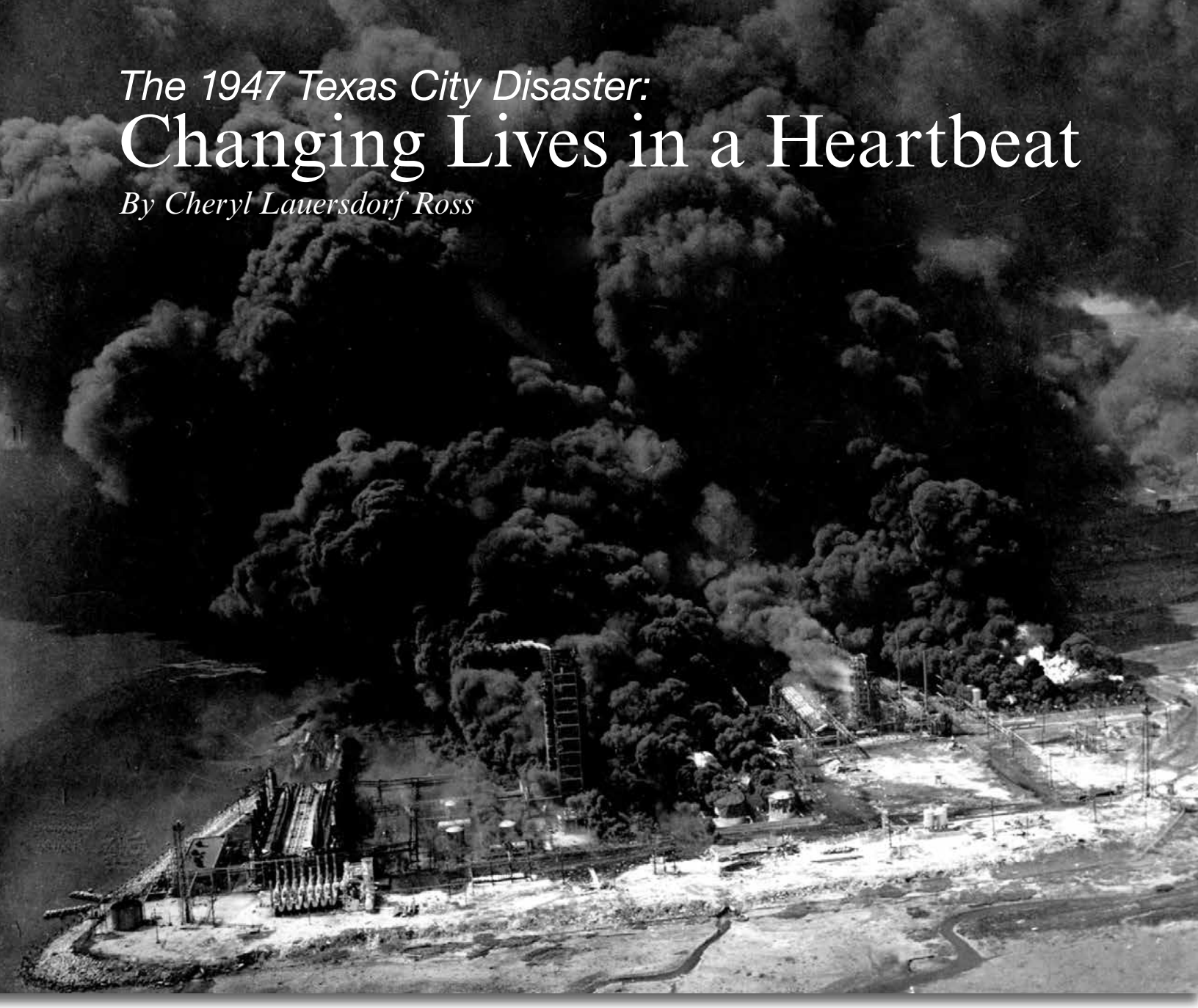
Jason W. Barrett, Ph.D., joined the Texas Department of Transportation's Environmental Affairs Division as an archeologist in 2005. His archeological experience includes projects in Texas, Belize, Guatemala, Mexico, American Samoa, and New England. A past director of the Texas Archeological Society's Annual Field School, Barrett serves as professional advisor to the Houston Archeological Society.

Douglas K. Boyd received a BA in general studies-archeology and an MA in anthropology. In 1987, he joined Prewitt and Associates, Inc., an archeological contracting firm in Austin, where he is a vice president. A former president of the Council of Texas Archeologists, he co-directed the Youth Group at the Texas Archeological Society field schools, and serves on the Texas Historical Commission's Antiquities Advisory Board and Texas Preservation Trust Fund Advisory Board.

The 1947 Texas City Disaster:

Changing Lives in a Heartbeat

By Cheryl Lauersdorf Ross



Dense, noxious smoke from explosions on the Grandcamp *and at nearby refineries enveloped the sky over the north part of the Monsanto plant, covering Texas City and surrounding areas.* Photo courtesy of the Moore Memorial Library and the Portal to Texas History, veale-031.

On the morning of April 16, 1947, the SS *Grandcamp*, surrounded by refineries and chemical plants near the Texas City docks, exploded with a force comparable to the Nagasaki atomic bomb, taking the lives of nearly 600 people and injuring thousands more. When a catastrophe like this strikes, reports focus on the number of lives lost, the extent of damages, the estimated cost of reviving the area, and how much the government will contribute to the recovery, with little discussion of the emotional devastation. In the wake of this disaster, some plant workers did not want to return to their jobs and some residents moved away from the industrial city. For those who witnessed the damage to homes and businesses and observed the mangled bodies of the dying and injured, their lives were forever haunted by those harrowing memories. Despite the shock and grief, Texas City residents showed the same strength and courage demonstrated by Americans during World War II, creating a bond of brotherhood that transcended barriers of race, ethnicity, and religion through their shared human experience.

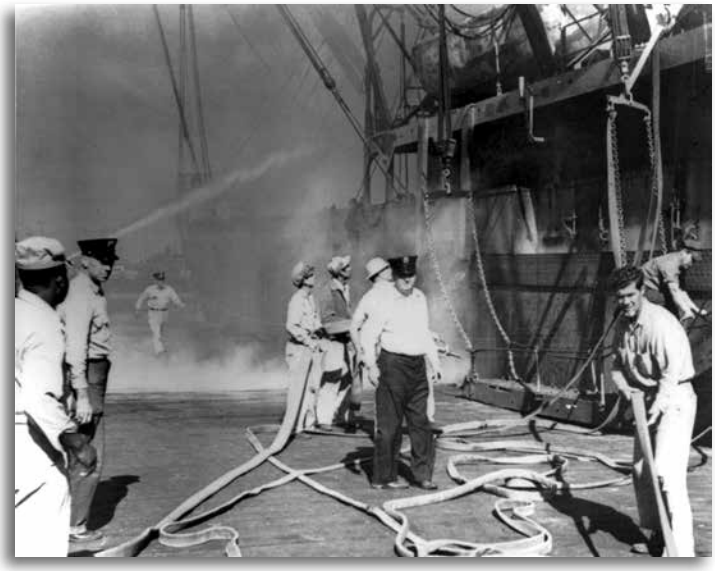
In 1941, the *Houston Port Book* identified Texas City as the fourth largest port in Texas and sixteenth in the United States based on its volume of business between 1938 and 1939, up from a national rank of thirtieth in 1936. Rapid growth continued during World War II mainly due to its location near the Gulf Coast and the Houston Ship Channel.[1]

The docks bustled with warehouses, cotton compresses, the railroad yard, and a growing oil industry. Many refineries and chemical plants, such as Carbide and Carbon Chemical Company (later Union Carbide), Republic Oil Refining Company, Humble Pipe Line, Stone Oil Company, Richardson Refining, and Atlantic Pipe Line, called the area home. These companies located all aspects of their businesses near the waterfront, including the administrative and clerical offices. Monsanto Chemical Company was the

largest, employing over 600 men and women. The city also had the world's largest and only U.S. tin smelter, which the government had built for the war effort. Other war needs, such as high octane aviation gasoline, spurred the city's population growth from 5,000 to 18,000 residents.[2]

Following the war, the city continued its fast-paced growth. By 1947, most Texas City veterans had returned home and back to work, and people from other parts of the country came for the booming industry opportunities. The sudden population increase created overcrowded classrooms, requiring the district to divide the students into two shifts for a quick-fix. Grades first through sixth attended classes during the morning shift, and grades seventh and up went to school in the afternoon.[3]

On the morning of April 16, 1947, Texas City longshoremen on the docks of Pier 0 loaded the last of the ammonium nitrate fertilizer bound for the "war-starved farms of France" aboard the SS *Grandcamp*. Other cargo included tobacco, cotton, twine, and a few cases of ammunition. Someone noticed smoke coming from the lower part of Hold 4 where 100-pound sacks of fertilizer were stored. The two fire extinguishers on hand were insufficient to suppress the smoke, and Captain Charles de Guillebon did not want the rest of the cargo destroyed by using water. He ordered the smoke and flames extinguished by "having the hatches battened and covered with tarpaulins, the ventilators closed, and the steam system turned on." Witnesses described the smoke as unusual in color, "'a pretty, gold yellow color' [that] attracted many onlookers." Galveston's radio station KGBC warned citizens to stay clear of the fire, but this only raised the curiosity of individuals and families who headed for the docks to witness the "salmon, orange, and purple" colored smoke.[4]



Fire captains and crewmen urgently struggle to suppress the smoke and fire building inside the Grandcamp.
Photo courtesy of the Moore Memorial Library and the Portal to Texas History, ntbkb-019.

Flares and fires at the docks and refineries occurred frequently, and no one considered them a serious safety concern. At that time, bags of ammonium nitrate fertilizer did not display any "highly flammable" warning labels. Even though ammonium nitrate was used to make explosives during the war, tests concluded the chemical was safe from explosion while being transported. The only concerns were for the small amount of ammunition on board and the nitric acid fumes from the burning fertilizer.[5]

Families gathered at the docks with their young children to see the fire and smoke. Students assigned to the school's afternoon shift also watched the action. The crowd at the dock stood "two and three deep with sandwiches and soft drinks" in hand, enjoying all the excitement. The number of onlookers grew to about 300.[6]

At approximately 8:30 a.m., the SS *Grandcamp* sounded an alarm. The Texas City Volunteer Fire Department (TCVFD) of twenty-six men and four trucks arrived on the scene, "followed by the Republic Oil Refining Company's fire-fighting team." A twenty-one-year-old Army veteran, Clifford C. Reed Sr., working for Republic Oil and on the company's fire team, happened to be at the back of the refinery, causing him to miss the second and final run to help the *Grandcamp*.[7]

The cloud of smoke in this photograph, taken from a Galveston rooftop, explains why many descriptions compared the Grandcamp *explosion to that of an atomic bomb.*
Photo courtesy of the Moore Memorial Library and the Portal to Texas History, ntbkb-044.

At 9:12 a.m., an explosion, heard 150 miles away, ripped through the air forming a mushroom-shaped cloud of toxic smoke that shot 2,000 feet high, carrying chunks of metal and shards of the fractured *Grandcamp*. The Monsanto Chemical Company complex, reduced to chunks of brick, concrete, and twisted steel beams, "was subjected to an impact equal to 250 five-ton blockbusters [bombs] exploding simultaneously." Warehouse 0 simply disappeared. The *Grandcamp*'s 1.5-ton anchor was thrown two miles away, where it plunged ten feet deep into the ground.[8]

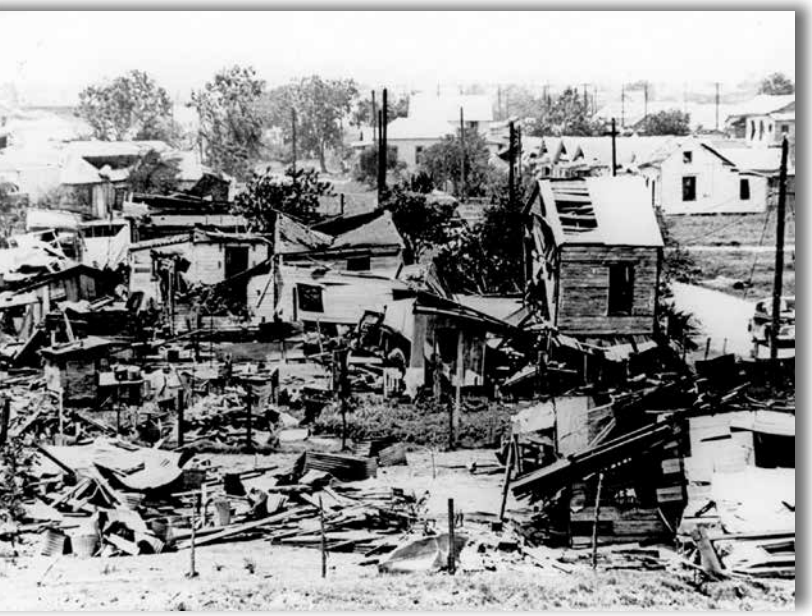
The explosion's force generated a "fifteen foot high tidal wave [that] crashed onto the dock, covering the [men, women, and children]." Some died instantly, while others were pulled into the water and drowned. Many of their bodies were never recovered. The power of the tidal wave lifted

The force of the Grandcamp *explosion created a fifteen-foot tidal wave, pushing the* Longhorn II *ashore.*
Photo courtesy of the Moore Memorial Library and the Portal to Texas History, ntbkb-unnumbered.

the *Longhorn II*, a 150-foot-long, thirty-ton steel barge, and pushed it on shore.[9]

The force obliterated the 10,419-ton *Grandcamp*, killing Captain de Guillebon, and thirty-two of the forty-two-man crew. Texas City's new fire truck had made its first and final run; the city's volunteer fire chief and his crew of twenty-six men were all killed. The only survivor of the TCVFD, Fred Dowdy, happened to be out of town.[10]

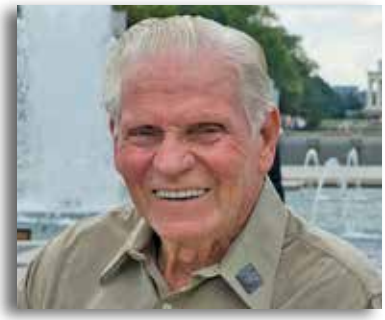
Fragments of the ship hit nearby chemical and refinery tanks and pipes causing numerous explosions and rivers of fire. Six oil tanks ruptured and caught fire at Stone Oil Refinery, and a gasoline tank at Richardson Refining went up in a huge fireball. The explosion destroyed the nearby S. W. Sugar and Molasses Company causing its three storage tanks to collapse and release thousands of barrels of molasses to the ground that then mixed with the "oil, gasoline, benzoyl, propane, and ethyl benzene [that] shot out of ruptured pipes and collapsed storage tanks" from the refineries. Some of the chemicals and molasses that caught fire spread with the rushing waters of the tidal wave and "scalded those who survived the blast and … cremated those who had fallen" in its path.[11]



The force of the blast destroyed residential areas, leaving scattered debris where homes once stood.
Photo courtesy of the Moore Memorial Library and the Portal to Texas History, ntbk-088.

Several thousand people in Galveston, thinking either the communists had detonated an atomic bomb or an earthquake had occurred, fled from large, swaying buildings only to return for shelter from the flying debris and oil raining down on them. The seismograph at Regis College in Denver, Colorado, falsely registered the *Grandcamp* explosion as an earthquake. Buildings shook and windows shattered as far away as Baytown, twenty-five miles north of Texas City.[12] Few windows in Texas City remained intact.

Hal Boyle, a noted war correspondent, stated that the disaster "looked like Nagasaki after the atomic bomb struck." Men, women, and children, bloody and blackened by oil, were seen stumbling and crawling towards safety and help. The blast shredded most of their clothing, leaving some naked and shoeless. Frances Alexander left the laundromat and ran toward the explosion; she knew her twelve-year-old little brother had gone to watch the fire. She barely recognized the boy with the misshapen face, a broken arm, and an eyeball out of its socket. When she began crying, he told her, "'Sister, don't cry; I'll be alright. Go see about mother and the others.'"[13]



Clifford C. Reed Sr., shown here in 2015, was the only survivor of the 1947 Republic Oil Refinery Fire Team that responded to the fire on the SS Grandcamp.
Photo courtesy of Clifford C. Reed Sr.

While many people were in shock, others like Clifford C. Reed Sr., the only survivor of the Republic Oil Refinery's firefighting team, instinctively went into action rendering aid to the fallen. He vividly recalls the moments following the explosions: "I was the only one that survived out of the fire department. It just wasn't my day [to die], I guess. Then, I went up to the [administration] offices to try to help some people up there. All the windows were blown out, and they were all cut up, and people bleeding all over the place." When he got them to the street he found another horror. "People walking across the streets with no clothes on – they were just blown off. Everything. Everything was just blown away. Big pieces of metal were falling down – as big as a truck or car. . . . I was trying to help one guy on the street [get to a first aid station] — he was all messed up, all cut up."[14]

Able-bodied employees from other refineries were among the first of about 500 workers at the waterfront, including Galveston's district office of the Army Corps of Engineers, which brought "trucks and heavy moving equipment. Workers plunged into the still-burning wreckage, first seeking the injured and leaving the dead for the time being." With fear of another explosion looming, rescue workers

faced the challenge of noxious fumes, visually impairing smoke, and intense heat from flaming tanks. Trudging through knee-high oily water, they searched for victims amidst the wreckage of automobiles and homes, chunks of concrete, and smoldering, twisted steel from refinery structures, and fragments of the *Grandcamp*.[15]

Flatbed trucks, automobiles, buses, and anything else with wheels transported the hundreds of dead and wounded. "They just piled [the dead] up on the trucks and took 'em over [to Galveston]. . . Hard to describe. There was just so damn many," Reed recalled. The look of disbelief showed on his face as he brought to mind the horrific day.[16]

Texas City had three clinics and ten doctors who were overwhelmed within minutes of the blast. A nurse recalls, "All of a sudden, the casualties poured in on us, by foot, automobiles, trucks, ambulances, commandeered school buses. There were thousands of them, cut and bleeding." With so many injured, responders used Texas City's auditorium and the high school gymnasium as first-aid centers. The next day, the gym became a morgue where survivors entered in groups of twenty to search for their missing loved ones.[17]

The Red Cross volunteers provided over two thousand cots, ten thousand blankets, medicine, food, water, and comfort to all in need.
Photo courtesy of the Moore Memorial Library and the Portal to Texas History, ntbkg-014.

Galveston quickly prepared its three hospitals, its doctors and nurses, the staff and medical students from the John Sealy teaching hospital, and fifty high school boys volunteering to carry stretchers. Volunteers formed a convoy of ambulances, buses, fire trucks, taxis, construction equipment, private cars, and fifty military vehicles from Fort Crockett. Within an hour of the explosion, Galveston had two Army first-aid teams arriving at Texas City in synergy with "an estimated 1,250 doctors, nurses, and first-aid workers from military services, the Red Cross, or private practice, working at the scene or in Galveston's hospitals." The Red Cross sent medicine, clean water, "about 10,000 blankets, and 2,600 cots." The U.S. Coast Guard joined the rescue efforts, and "a U.S. Navy hospital ship was dispatched to the area." By

Alongside a grain elevator, rescue and recovery crews search through a pile of metal girders, a collapsed roof, overturned and crushed cars, and other debris measuring nearly ten-feet high.
Photo courtesy of the Moore Memorial Library and the Portal to Texas History, ntbkb-056.

noontime, broadcasts from local and national radio stations brought volunteers from Houston and nearby towns and aid from most of the nation.[18]

Unbelievably, what survived the initial explosion was rocked again at 1:10 a.m. on April 17 when the SS *High Flyer*, loaded with ammonium nitrate ignited by flying debris from the *Grandcamp*, also exploded.[19] This triggered another set of small explosions, fires, and further devastation from burning metal fragments propelled through the night sky like missiles, causing more injuries and devastation that slowed rescue efforts. Teams worked around the clock with hopes that some might be found alive. Twenty-six days after the explosion, they recovered the last body.[20]

Local Boy Scouts were among the bravest heroes as they answered the call to duty, never wavering despite the dreadful images. Scout Charles Rice, a student from Galveston's Ball High School, worked at the hospitals "setting up beds in hallways and carrying victims in from flatbed trucks and other vehicles." Sixteen-year-old Joseph Dearinger Jr. helped tag the dead bodies. He later served his country as a Marine overseas in the Korean War. Nunzio Marabella, age fourteen, joined other scouts in the back of an army truck going to the disaster site. He spent part of the day trying to deliver telegrams and was then sent to the gymnasium. He will never forget the experience when he entered the makeshift morgue, "There were dead bodies lying all over the [gymnasium] floor. I was assigned to a room . . . [where they placed] body parts that couldn't be identified. . . . You didn't see any complete bodies. The smell was awful. . . My job was just to sweep . . . [and] what I was sweeping up was ash, charred flesh that fell off as they were carrying these body parts in." Col. E. H. Mitchell, professor of military science and tactics at Ball High School, noted that "their Scout training, to quickly aid and assist when needed, was paying off." Thirteen-year-old Fred Mitchell, the colonel's son, felt like the other Boy Scouts that "it was [his] responsibility to obey orders as a good Scout."[21]

The entrance to the Texas City Memorial Park and the Memorial Park Cemetery displays the Grandcamp*'s anchor. The names of those who perished in the 1947 disaster can be found on the bricks along the side wall. The cemetery remains exclusively for the sixty-three unidentified victims of the accident.* Photo courtesy of author.

Clifford Reed's sense of duty to his fellow man propelled him into action. He humbly recalled, "I just did what I could to help them out . . . wasn't trying to be a hero or anything." The Republic Oil Refinery Company saw him as a hero, however, and presented him a gold watch inscribed with its appreciation for his courageous action on April 16-17, 1947.[22]

Other heroes included fifth grade teacher Rosa Lee Curry who calmly and quickly guided the students to safety as the roof caved in on her classroom. A first-grader at the time, Lynn Ellison "remembers that his teacher pushed the children out the window because the [classroom] walls" were collapsing on them. Mr. Edwards, the music teacher at Danforth Elementary School, was seen lifting students up to safety. The frail man seemed to be lifting students who weighed as much as, if not more than, he did, saving a staggering number of children from being severely injured and crushed.[23]

Many school children remained traumatized into their adult years by the frightening experience. Survivor Tommy Giles writes that he remembers "the sound of a siren or a warning whistle from a refinery would startle [the elementary students] and bring some to tears." Sylvia Newsome Smith, age nine when the disaster struck, says her memories will forever be haunted by "the sirens and the smell of blood and steel." Alex Pearson, who was in class at Danforth Elementary when the disaster struck, realizes "a large part of [his] childhood ended on April 16, 1947, and all of [those] who survived would create bonds of friendship," lasting a lifetime.[24]

The level of destruction that occurred in a matter of seconds was beyond comprehension for the citizens who found themselves thrown into madness. More than 2,500 survivors suffered from injuries such as hearing impairment, the loss of limbs or eyes, burns, lacerations, sprains, and fractures. One out of three homes sustained damage to the point of being unlivable. Approximately 25,000 people were instantly rendered homeless or jobless. The disaster damaged 1,100 cars and trucks, 362 freight cars, and completely totaled three locomotives.[25] They received no advance warning. No alarm or siren sounded, which many had been prepared to hear during wartime. The city had no time to prepare nor did the families of the nearly 600 men, women, and children who died.

In a letter to her parents, Lucille Burkhart describes the numerous days of continuous funeral processions, adding, "As sad as the funerals are — there are still sadder situations. . . . One poor woman searching for her husband looked through a whole bucket of hands trying to find even that much of him."[26]

On June 22, the sixty-three bodies that remained unidentified were buried in individual graves at the newly created Texas City Memorial Cemetery, built exclusively for the disaster victims. Thousands attended, with every race, ethnicity, and religion represented at the services conducted by Protestant, Jewish, and Catholic officiants.[27]

On May 1, 1947, the Texas City docks reopened for business. The damaged schools followed suit about three weeks later, although some were still in stages of repair. Resident Fred W. Litton, owner of Emken Funeral Home, wrote that the people of Texas City used their wits, intelligence, resourcefulness, generosity, and their cooperative spirit that recognized no social, racial, or political barriers.[28] The community, small business owners, and the oil industry faced the challenges, survived the devastation, and came through the disaster stronger than ever.

The many things learned on April 16, 1947, including how to prepare for a disaster and the need for warning labels on volatile chemicals like ammonium nitrate, have improved safety. However, the strength of the human spirit to persevere and the selfless kindness in giving to others are some of the lessons to remember from the Texas City Disaster. Today Texas City Memorial Park holds an annual service to remember those who perished in the blasts, honor the many volunteers, and remember the city's strength, unity, and resolve to overcome tragedy. The April 12, 2017, memorial service marked the seventieth anniversary of the disaster with city dignitaries, fire fighters, police officers, Boy Scouts, survivors, and several generations of Texas City residents in attendance. Julio Luna Jr. told the crowd he had been part of the crew that tried to contain the smoke from the *Grandcamp* and that he was the one who discovered the fertilizer was on fire. When the fire fighters arrived, they told Luna and his fellow crewmen to leave the ship. As he drove away from the dock, the *Grandcamp* exploded. He is still tormented by the image of the many young children he saw gathered at a fence to watch the smoke, ultimately placing them in harm's way.[29] Remembering this history brings awareness of needed changes, reminds us of our growth and perseverance, and, sometimes, comforts those whose memories forever scarred their heart.

Cheryl Lauersdorf Ross is a native Houstonian and graduated in May 2017 from the University of Houston Honors College with a BA in English literature. While at UH, she interned with *Houston History*.

Dorothy Howard's home.

"When I walked in, I stopped. The tears just started rolling. I never thought in a million years that I would be able to own a home."
– Dorothy Howard

Dorothy Howard, Houston Habitat for Humanity's first home owner, receives a framed copy of the deed to her home marked paid.
Photo courtesy of Houston Habitat for Humanity.

Habitat for Humanity and its Home in Houston

By Christine Nguyen

Imagine one woman raising eight grandchildren in a cramped apartment with only one bathroom. This everyday struggle was reality for Dorothy Howard, whose days began first thing in the morning with the chaotic scramble to the lone bathroom, while every night some of the children shared bunk beds and others slept on the floor.[1] Howard pieced together a living for the family of nine from disability and children's benefits, but it never amounted to enough to sleep easily. On December 24, 1988, everything changed. Dorothy Howard became the first Habitat for Humanity homeowner in Houston, Texas. What a dramatic difference it made for her and her eight grandchildren to move into a one-story, four-bedroom house and to have a yard for the first time![2]

HISTORY

Habitat for Humanity is an international non-profit organization that assists low-income families in building new homes and new lives to reduce poverty housing around the world. The organization focuses on two goals. The first is to build as many houses as it can, using the principles of sweat equity, no interest, no profit, volunteer-driven construction in every corner of the globe. Today Habitat is completing a house somewhere every twenty-six minutes (20,000 per year). Second, Habitat attempts to make housing a matter of conscience everywhere. Habitat wants everyone to understand that it is morally and socially unacceptable for any human being not to have a simple, decent place to sleep at night.[3]

Approximately 1.6 billion people globally lack adequate shelter. Habitat for Humanity envisions a world where everyone has a decent place to live. It contends that a house is more than just four walls and a roof, and operates on the belief that a safe, secure, and affordable home changes lives. A home helps people live healthier, it keeps children in school, and it gives families opportunities. A stable home helps break the endless cycle of poverty.[4]

Millard Fuller and his wife Linda conceived Habitat for Humanity in 1976 at Koinonia Farm in Americus, Georgia. When the Fullers first arrived at Koinonia Farm in 1965, they had just given up their pursuit of money and were searching for a new purpose to dedicate their lives. Millard met Clarence Jordan, the farm's primary founder, and learned of his mission to practice the teachings of Jesus, "especially with regard to loving all people and caring for the poor."[5] In the 1940s through the 1960s, the South maintained a social structure dominated by whites. While slaves had gained their freedom in 1865, African Americans continued to fight for their civil rights and equality. "All people" often did not include blacks. Jordan and the residents of Koinonia, on the other hand, treated all equally despite societal prejudices, and that is a standard that Habitat for Humanity continues to uphold. Under the hammer, there is no discrimination.

In 1981, nine miles away from Americus, Georgia, former President Jimmy Carter and wife Rosalyn Carter returned to their home in Plains, Georgia, at the end of his term. Wanting to continue his commitment to social justice, promoting human rights, and relieving human suffering, Habitat for Humanity piqued Carter's interest as he realized Habitat's mission closely aligned with his and his wife's values. Therefore, in 1984, the couple became official partners of Habitat for Humanity, advocating for and supporting the

Former President Jimmy Carter, shown here at the Carter Work Project in Houston in 1998, and his wife Rosalynn Carter have been tireless advocates for Habitat for Humanity, pitching in to help on many build sites over the years.
Photo courtesy of Habitat for Humanity International.

organization through the Carter Work Project, an annual week-long building blitz. The Carters not only donated resources, but they also donated their time. Carter was seen on jobsites willing to pick up a hammer alongside the volunteers, and this image of a former president with the people started a movement with Habitat for Humanity. Habitat reports, "To date, President and Mrs. Carter have served with over 92,260 volunteers in fourteen countries to build, renovate and repair 3,944 homes."[6] The Carters' involvement brought Habitat for Humanity national visibility and recognition, fostering the organization's growth into what it is today with affiliate headquarters across the nation and the world.

> *"I can walk down the aisles of airplanes, talking with people, and invariably the number-one thing that everybody says is, 'Tell me about Habitat.'"*
>
> —President Jimmy Carter[7]

HABITAT FOR HUMANITY LANDS IN HOUSTON

Carl Umland was an environmental health coordinator for Exxon when the company relocated him and his family to Houston, where Umland started the Habitat for Humanity affiliation in 1987. He served as its first president for six years and helped the organization become the largest nonprofit housing builder in the city.[8] After a year of trial and error, the organization dedicated its first home to Dorothy Howard in 1988.

In 1998, The Jimmy Carter Work Project landed in Houston with a goal to build one hundred Habitat for Humanity homes in one week — the largest effort attempted in the United States. Six thousand volunteers nailed together over 500,000 linear feet of lumber, used 15,000 pounds of nails, applied 4,500 gallons of paint, and drank over 35,000 gallons of water in the Houston heat alongside the former U.S. president. At the end of the week, the count of Habitat houses in Houston had nearly tripled from the 52 houses standing seven days prior. Today, Houston Habitat for Humanity (HHFH) has built over one thousand homes, housing over 3,980 people. HHFH builds 30 to 50 new EnergySTAR energy efficient homes annually and repairs 30 to 50 older homes. Charity Navigator designated HHFH among Houston charities as number one in effectiveness based on overall scores for financial performance, transparency, and accountability.[9]

Houston Habitat's houses were developed primarily in the Fifth Ward, and it continues to build largely in that area, such as the Settegast neighborhood, but also builds in the northwest and southeast sides of the city. As families begin to settle into more permanent homes thanks to HHFH, these neighborhoods begin to see more resources invested there, as evidenced in facilities like grocery stores and schools. These amenities complete the chain of stability because families then have access to healthier foods and improved educational opportunities that will allow them to break the cycle of poverty. The children have a 74 percent greater chance of completing high school and twice the percentage of receiving a higher education.[10] As a result financial stability becomes an attainable goal due to HHFH's no interest, zero percent mortgage, and energy efficient design model.

Habitat homes are not simply given away. Once qualified applicants are chosen, they attend classes to learn how to be successful first-time homeowners. After closing on the home, the families pay the insurance, taxes, and mortgage on the home like any other homeowners. The future homeowners also participate in three hundred hours of "sweat equity," which means Habitat families are working alongside the staff and volunteers on the build site constructing the homes. This policy teaches the homeowners basic house construction skills and provides a sense of pride and entitlement given the hard work they accomplish to earn their new home.

Habitat for Humanity boasts the motto "build homes, change lives" and indeed that is what they do. Not only does the organization positively impact the city, the homeowners, and the community, it also leaves a lasting impression on the volunteers. Stephen Sye, director of development and volunteer coordinator at HHFH, recalls one of the first times he showed a family their new home. Stephen asked

Getting a home ready, such as this one being built in 2011, is a group undertaking. Homeowners contribute 300 hours of "sweat equity," working with the build staff and volunteers; they learn about homeownership, and pay the insurance, taxes, and mortgage like all homeowners. Photo courtesy of Houston Habitat for Humanity.

On March 25, 2011, Houston Habitat for Humanity dedicated a solar-powered home to the Hillard and Jones family alongside sponsors Pride International and Green Mountain Energy Company. Pride International and Houston Habitat partnered to build the home and upgrade it with a ten-panel solar system. Green Mountain, through its Big Texas Sun Club, provided a solar-powered hot water heater. Photo courtesy of Houston Habitat for Humanity.

one of the young boys to show him which bedroom was his. Running to a bedroom, the boy stood in the closet. While Stephen understood that was the bedroom, he did not understand why the boy was standing in the closet. The boy's older brother then told Stephen that his little brother did not understand that the whole room was his because where they lived previously, they slept in the closet. This story illustrates the impact Habitat for Humanity has had on Sye, but with every home built, a similar story surfaces that is just as powerful. Sye caught what he calls "habititis" and has been with Habitat for eight years since that encounter, continuing to make a world of difference with Houston Habitat for Humanity.[11]

Many volunteers catch "habititis." Habitat for Humanity is a predominantly volunteer-based organization; change would not be possible without the help of these individuals. It is easy to become a volunteer with a local affiliate; no experience is required to help build a Habitat house. Being on the construction site alongside the families and build staff is a rewarding experience. Day after day, the friendly faces of the Habitat build staff are working to build homes and change lives. One of the men spoke about his past year in the Habitat neighborhood under construction in Settegast. He is amazed that when he began only two houses had been completed and now, a year later, the street of over thirty houses has come to life in a short period of time. He adds that he will not be going anywhere because he wants to see more.[12] The energy on the construction sites is contagious, and it has kept the organization going strong for thirty years.

The University of Houston Habitat for Humanity Campus Chapter members work to assemble a new home. Photo courtesy of author.

HABITAT FOR WHOM?

Habitat for Humanity strives to deliver on its mission to provide spiritual fulfillment to its volunteers as well as improving new homeowners' lives. While some people catch "habititis," others have reservations about the effectiveness and efficiency of Habitat for Humanity's home building process and the effect on the families. When Hurricane Katrina hit the Gulf Coast in 2005, Habitat for Humanity promised to build and repair as many homes as it could pay for, "hopefully in the thousands," said CEO of Habitat for Humanity Jonathan Reckford. The organization quickly gathered 50,000 volunteers, raised $127 million, and attracted prominent backers like President George H. W. Bush and the New Orleans jazz luminaries Harry Connick Jr. and Branford Marsalis. However, a year and a half later, only 702 homes were built or under construction along the coast from Alabama to Texas. The organization began to face criticism that its procedures were slow, rigid, and, perhaps, not suited for helping disaster victims. Nonetheless, Habitat for Humanity has helped relief efforts after Hurricane Katrina. Kenneth J. Meinert, a senior vice president of Habitat for Humanity, says, "Along the Gulf Coast, we had built 57 homes a year, now we're building 57 a month… In these conditions, to have built 700 homes, it's an absolute work of God." [13]

Some have further questioned the organization's emphasis on building from scratch rather than rebuilding and repairing damaged homes. Habitat for Humanity is made up of autonomous affiliates that operate like a franchise. Some local affiliates, like Karen Cleveland in Habitat North Virginia, have taken the initiative of repairing and rebuilding homes that can cost 25 percent of a new home construction. She encourages flexibility for more rehabilitation initiatives, but it is still a work in progress.[14]

On the other side of the construction debate are the families who will occupy these new homes. Habitat for Humanity does not give houses away; twenty-year no-interest mortgages are provided and the payments are used to finance more houses. To qualify, families must have incomes well below the median for their areas but steady enough to cover mortgages. Along with good credit and, in some areas, several thousand dollars to cover taxes and insurance, unsuccessful applicants become frustrated with the strict requirements. Even for those applicants who become new homeowners, banks, brokers, and mortgage services target these families to take advantage of their financial naivety. Habitat affiliates in Indianapolis, Indiana, and Columbus,

Coog's House has been more than just another house. The UH students have reframed HHFH's view of building. The new design takes traditional building methods and materials and uses them in an unconventional way to produce a house that is still affordable, more sustainable, and aesthetically pleasing.

Photo courtesy of the University of Houston College of Architecture and Design Coog's House Design team.

Ohio, say many clients are getting mail solicitations that look to be from Habitat but are not. Critics say Habitat is not set up to deal with homeowners' problems that could lead to detrimental consequences for the new homeowners. On the other hand, Spokesman Duane Bates notes that foreclosures are rare, with the national rate under 2 percent. He adds that, as part of the affiliate's procedures, Habitat offers education and training to prepare and inform new homeowners to make better choices.[15]

STUDENTS FOR CHANGE AND COOG'S HOUSE

Along with building and helping individuals become new homeowners, Habitat for Humanity aims to advocate and educate the community about poverty housing and the need for adequate shelter for all. A large part of breeding this value at an early stage is through campus chapters at the high school and collegiate level. Each campus chapter is a student-led, student-initiated organization that partners with their local Habitat for Humanity to fulfill the four functions of a campus chapter: direct service through volunteering, fundraising, advocating, and educating.[16] Houston Habitat for Humanity has campus chapters at the collegiate level at Texas A&M Prairie View, Rice University, and the University of Houston Main Campus.

Four years ago, I got an email that said two students were looking for an executive team to reestablish a campus chapter at the University of Houston. Coincidentally at the time, I had been thinking about how to get involved with Habitat for Humanity again. A few weeks later, I found myself part of a team with a common goal to make a difference and reestablish Habitat for Humanity as a campus organization. At the time, the Rice University campus chapter had recently completed their Centennial House Project, a student-run effort that brought the Rice community together to design, fund, and build a new Habitat for Humanity home. Rice architecture students, Yoni Pressman and Courtney Benzon, designed the home to demonstrate the compatibility of sustainability and affordability of a low-cost home, and the community joined them to support their endeavors to honor and renew Rice's commitment to volunteerism as it entered its second century.[17] Inspired by Rice University and fueled by friendly competition, the University of Houston campus

UH students on a build site show their school spirit, flashing the "Go Coogs!" sign.

Photo courtesy of author.

Coog's House was designed not only to meet HHFH's EnergySTAR requirements but also exceed them. This house has the potential to be certified as a LEED Gold home, which stands for Leader in Energy Efficient Design and evaluates the sustainability of buildings. Shown left to right are design team students Erika Chan, Cindy Nguyen, Christine Nguyen, and Taylor Rigsby.

Photo courtesy of the University of Houston College of Architecture and Design Coog's House Design team.

chapter quickly took on the project to design and build a new home for Habitat for Humanity and another low-income family.

As an architecture student, I took it upon myself to see what the Gerald D. Hines College of Architecture and Design (UHCOAD) could do to jumpstart this large project. Chan Huynh, a design studio professor at the UHCOAD, quickly became involved and offered to open a summer design studio for students to design the house for Habitat for Humanity and get credit toward their architecture degree. Subsequently, Professor Huynh volunteered to teach a follow-up elective class using the new house design to teach students how to produce construction documents – a necessary step for the house to become a reality. In less than a month, we opened a design studio for the summer 2015 semester and guaranteed a house designed for Houston Habitat for Humanity.

The students in the studio worked in teams and produced three very different designs that all demonstrate low-income homes do not have to sacrifice aesthetics and that, with thoughtful design, they can be affordable, enjoyable, and sustainable. Working in teams and having Habitat for Humanity as our client, we gained valuable skills beyond designing that we can apply in the work force. The students received real-life experiences as they worked with Houston Habitat throughout the entire process. As the project continues to develop, more and more students will be involved throughout the campus. The project quickly adopted the name "Coog's House" in reference to it being a student-led project of the University of Houston Cougars — conceived by students, designed by students, built by students.

Coog's House will continue to enhance the education experience by providing students an opportunity for hands-on experience in home design and the added value of participating in the application of their creation through an actual home build. The involvement of campus chapters with Habitat for Humanity utilizes the students as the future for the organization, the community, and ultimately, the world. Coog's House planted a seed of excitement in Houston Habitat for opportunities to think beyond the traditional methods of design and construction the organization has been accustomed to for the last forty years.[18] While it is true the students at the University of Houston hope to change the life of one family by building Coog's House, the value in the project goes beyond a single home — it will set a higher standard for sustainable and affordable housing that all have a right to own.

The UH campus chapter wants to engage as many students, faculty, staff, alumni, supporters, and members of the community as possible as chapter members complete the Coog's House Project to make a difference and contribute to the reduction of poverty housing.

Habitat for Humanity has been building homes and changing lives for forty years. The organization was conceived with the belief that all have a right to decent housing, and that under the hammer, there is no discrimination. Today, people from every walk of life can be seen on the build sites volunteering for Habitat for Humanity and helping families begin a new stage in their lives. Hearing the different stories about the families and their new homes is rewarding. Although every story is different, they all have one thing in common: gratitude. Through Habitat for Humanity and the volunteers, these families have gained hope and experienced positive change in their lives and in their community.

Christine Nguyen graduated in December 2016 with a Bachelor of Architecture from the University of Houston Gerald D. Hines College of Architecture and Design (UHCOAD). She joined the UH Habitat for Humanity Campus Chapter as a founding executive team member in 2014, and became the president in 2015. She helped establish the design partnership between UHCOAD and UH Habitat, that resulted in the Coog's House design. She works at Ziegler Cooper Architects and recently returned from a Habitat Global Village build in Thailand.

The Day the Earth Shook:

Collapse of a Crane Owned and Operated by Deep South Crane & Rigging at LyondellBasell's Houston Refinery

By Laura Bernal

The refining industry in Texas, particularly in Houston, has played an important role in the city's history and culture. Refineries emerged around the Houston Ship Channel following the discovery of oil in the region, providing jobs for people in the surrounding areas and those coming from out-of-state. Among thousands of employees in this industry is my father, Martin Bernal, who has worked at LyondellBasell Houston Refinery since 1989. During that time, he has seen the refinery grow and has experienced various ownership changes.

On July 18, 2008, my father could have been at the wrong place at the wrong time when one of the world's largest cranes collapsed at the refinery. He could have been one of the dead or injured workers. I have always been conscious of this accident, but it was not until formally interviewing him about it and his role as part of the emergency response team that I realized the magnitude of this event. This accident differed from those usually associated with refineries, which are explosions due to the types of products the facilities produce. A crane collapse and other accidents are equally important, however, because they jeopardize the safety of the workers and the reputation of the location.

Martin Bernal came to the United States from Mexico in 1981, one month after his seventeenth birthday, and began working at LyondellBasell Houston Refinery in 1989.
Photo courtesy of author.

The Netherlands-based LyondellBasell Houston Refinery sits on 700 acres of land located on Lawndale Street in Houston, Texas, between Texas State Highway 225 and the Houston Ship Channel. The company notes this refinery was "one of the first petroleum refineries constructed on the Houston Ship Channel and traces its origin to 1918." At its creation, Sinclair Refining operated the refinery, followed by Atlantic Richfield Company (ARCO). After 1993 the refinery was "part of a joint venture with CITGO Petroleum," and remained so until 2006 "as Houston Refinery LP [but] is now a wholly owned subsidiary of LyondellBasell."[1] Although the refinery has changed names and ownership multiple times, it has continued to yield the same products.

THE CRANE

The monstrous red crane that collapsed at the refinery belonged to the Deep South Crane & Rigging Company (DSC). One of the of largest mobile cranes in existence, the Versa TC36000 had "a 420' boom, 240' mast, 61 spar and 836,000 pounds of auxiliary counterweight [that] was to be attached to its pendants suspended from the mast tip from 105' from the axis of the crane." My father remembers it as "the second largest crane in the world."[2]

About four weeks before the tragedy, the crane was assembled at the refinery because "in the city of Houston, there is no crane inspection. It is up to the company to make sure it's set up correctly." Standing about thirty stories high and capable of lifting up to one million pounds, it "had been shipped to the refinery in pieces … [and] was to be used to remove large drums from inside a coking unit, [as] part of the regularly scheduled maintenance of the refinery."[3]

THE ACCIDENT

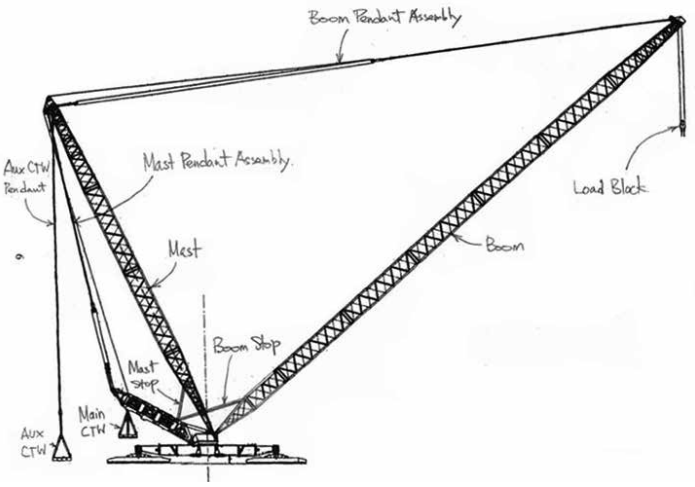
In the beginning stages of a large turnaround job, the crane fell when only a handful of the approximately 3,000 employees and contractors were at the refinery.[4] A typical week for most contract workers consists of four ten-hour days (Monday through Thursday); however, some work extra hours during an emergency or busy week. The day the crane

On July 18, 2008, one of the world's largest cranes, which belonged to the Deep South Crane & Rigging Company, collapsed at the LyondellBasell Refinery in Houston, bringing the smaller yellow support crane with it, killing four and injuring six.
Photo by Steve Ueckert/©*Houston Chronicle*. Used with permission.

fell, my father was at the refinery working on a leak at a water unit located about ten minutes away from the crane.

The day seemed like any other workday: the red crane was standing, proud and tall, as workers labored in their assigned units. At the crane's unit, a substitute filled in for the regular operator who was absent. The Occupational Safety and Health Administration (OSHA) found that "the man at the helm of one of the world's largest cranes when it flipped…had never been in the machine's cab before and was not qualified for the job… [I]t was the operator's first day driving the giant TC36000."[5] The crane and its impacted area were located near a lunchroom. Also in the immediate area stood a yellow 80-ton Demag assist crane.

The men in the unit were putting the final additions on the DSC crane. That morning, "DSC started the process of positioning the auxiliary counterweight that was to be attached to the suspended pendants to achieve the super-lift capacity." At about 9:00 a.m. "the main winch stopped working." The winch was essential for lowering and raising the mast and boom together. As OSHA officials continued their investigation, they learned that the crane's supervisor called the Deep South Crane & Rigging main office in Baton Rouge, Louisiana, for assistance regarding the winch malfunction. Through that phone call, he was able to test the control panel and replace the winch operational lever. Before the group's lunch break, "two ironworkers with DSC were in a JLG [John L. Grove Industries] aerial lift attempting to attach two metal bars on the auxiliary counterweight tray" and then went to the yellow assist crane to facilitate the process.[6] After completing this task, the workers stopped to eat their lunch.



The diagram of OSHA's report on the accident, released January 13, 2009, illustrates the crane's status in the final moments before its collapse.

Photo courtesy of the Occupational Safety and Health Administration.

The turning point in the crane collapse timeline was the workers' half-hour lunch break at noon. For some, it was their last meal. After the break, the workers continued using the yellow crane because they had "to connect the upper end of the metal bars to pendants suspended from the tip of the mast" of the DSC crane. Simultaneously, the "ironworkers were giving signals to the [red] TC36000 crane operator to adjust the tip location of the mast."[7] This proved to be a fatal mistake because at about 1:40 p.m., the operator lost control of the red crane, and it began to fall backwards. The only warning was the loud boom heard by workers at the refinery. As the red crane fell, it brought the yellow assist crane along with it.

After hearing the boom, workers received snippets of information, via the radios they carried. They learned that the red crane had fallen, and that they needed to evacuate the premises. My father remembers that "not a lot of details" came through the radio, but the alarms were going off all around the refinery. He looked back to the crane's location and saw it was gone. After the workers had evacuated the premises, all the entrances to the refinery closed, and the refinery conducted a "head count" to determine if anyone was missing.[8]

To evacuate as quickly as possible, the company shared the evacuation process and limited information through the workers' radios. The transmission reported the situation in code, describing the level of the accident's intensity. The refinery identifies three levels of evacuation: Level One (evacuate the unit), Level Two (go to a designated area for a headcount), and Level Three (evacuate the entire refinery and get as far away from the refinery as possible). My father remembers that the collapse was immediately classified as a Level Three accident, skipping the first two.[9]

The workers' experiences during the accident depended on where they were located in relation to the crane. The ones in the immediate area were either injured or killed. Unfortunately, the man operating the crane was one of the deceased. Those who were farther away heard the crane fall and felt the earth shake. Some also reported screams as they evacuated the refinery.

CIMA (Channel Industries Mutual Aid), a non-profit organization designed to help refineries in the Greater Houston Metropolitan Area during emergencies, was among the reinforcements that arrived to offer aid. Sheriffs, police officers, helicopters, and ambulances also arrived. The *Houston Chronicle* showed images of ambulances and a Life Flight helicopter with first responders outside the refinery to tend the injured. Some of the injured went to nearby hospitals, such as Memorial Hermann-Texas Medical Center and Ben Taub General Hospital, while others received medical attention at the scene. Six men were injured, and four died, including Hubert Odom III, John D. Henry, Daniel "DJ" Lee Johnson, and Rocky Dale Strength, although that information was not released at that time.[10] With this kind of pressure, most of the workers wanted to contact their families to tell them they were fine before the media, which had arrived on the scene, reported the accident.

THE EMERGENCY RESPONSE TEAM AND ITS HELP

Eventually, the refinery allowed the workers to return home, with the exception of members of the Emergency Response Team (ERT). Between an hour and an hour and a half after the evacuation, ERT members re-entered the refinery to help as needed. As part of that team, my father recalls that their biggest task was fixing a leak caused when the crane landed, hitting a pipe and leaving a seven- to eight-foot rupture in the earth. They had to fix the leak before the gash grew deeper. As the day neared an end, they helped set up lights to keep working and continued refueling the emergency trucks parked at the scene. My father clocked out at 4:00

Martin Bernal with William Pope, a fellow member of the Emergency Response Team. Photo courtesy of author.

p.m. and returned at 11:00 p.m. that same day; his shift ended at 7:00 a.m. Saturday morning, but he continued assisting with repairs throughout the weekend.

On Monday, when my father returned to his normal hours, the mood was somber. No one could believe that the red crane was gone. To help ease the transition, the companies "arranged for counseling, as well as meetings with workers to come to grips with what happened."[11] It took time, but the shock eventually began to wear off.

OSHA installed itself in the unit to investigate the accident. On July 20, two days after the crane fell, OSHA "sent in federal investigators and cordoned off the area… LyondellBasell and Deep South [were] also conducting their own investigations."[12] Access to the area was immediately restricted to the investigators, and workers could not enter for about a week. The refinery and contract companies notified their employees about the accident as soon as information became available. This was very important, since it took about a month for OSHA to give workers permission to remove the crane's pieces from the refinery's property.

THE AFTERMATH

Just three days after the accident, though, it was back in the news on July 21, 2008, when another crane owned by Crane Rental Division, Inc., collapsed northeast of Houston in Kingwood.[13] No fatalities occurred at this collapse, and the brief article in the *Houston Chronicle* dealt primarily with the tragedy at LyondellBasell instead. The LyondellBasell incident remained in the news, especially after two other major cranes collapsed in Florida and New York, although they were not at refineries.

The 700-acre LyondellBasell Houston Refinery is located on Lawndale Street, between the Houston Ship Channel and Texas State Highway 225.

Photo courtesy of The Center for Land Use Interpretation.

On January 13, 2009, OSHA released its investigation report that revealed the substitute crane operator lacked the proper training and skills to manage such a massive crane. OSHA held Deep South Crane & Rigging responsible for the accident, allowing LyondellBasell to clear its name. OSHA issued eight citations against the crane's company, six of which were serious, and penalties of $71,500.[14] Additionally, family members of the dead filed lawsuits against the company, however, my father does not remember hearing talk about that delicate matter at the refinery. The refinery's United Steelworkers chapter, Local USW 13-227, included the accident in its 2008 fatality report. The biggest consequence was LyondellBasell terminating its contract with Deep South Crane & Rigging indefinitely. DSC picked up the scraps of the crane before its departure.[15]

Each year on the anniversary of the accident, workers at the refinery hold a minute of silence in memory of those who lost their lives that day. Through their radios, the laborers receive orders to stop what they are doing and observe the minute of silence. As a memorial, the refinery has a small white cross with the names of the four men who died. Even though the men who lost their lives were Deep South Crane & Rigging employees, their deaths forced LyondellBasell workers and officials to develop new programs and training that address all possible accidents and injuries. One of these programs was GoalZero, "developed [in 2010]…to help cultivate a workplace free from injuries, incidents, and defects." Each year, the refinery holds an annual Global Safety Day to remind employees of the program. They receive free items and participate in "educational activities" organized by officials.[16] The program typically occurs in the summer, about a month before the anniversary of the crane collapse.

When the 2015 United Steelworkers strike occurred, union members focused on improving safety in refineries. In their rallies and demonstrations, the strikers failed to mention the crane collapse at LyondellBasell even though it was "the deadliest incident in the industry since a 2005 explosion at the BP refinery in Texas City, Texas, that killed fifteen workers and injured 180 other people."[17] The crane accident redefined some concepts of safety and strikers could have used this accident to support their concerns given how it unfolded and its impact.

My father and I hope an accident like this never happens again. When the crane collapsed, families lost loved ones. My father could have been among the dead if he had been closer to the crane. Although nothing can guarantee that cranes will not collapse in the future, the improvements to safety regulations help decrease some of the dangers. Even though LyondellBasell was not to blame, the refinery received most of the attention because the accident happened on its property. It is not a great moment in the refinery's timeline, but it is an important part of its history.

Laura Bernal lives in Baytown, Texas, and is the proud daughter of a refinery worker. She graduated from the University of Houston with her BA in history in May 2016 at the age of twenty and is currently pursuing a master's degree in public history at UH.

Lest We Forget

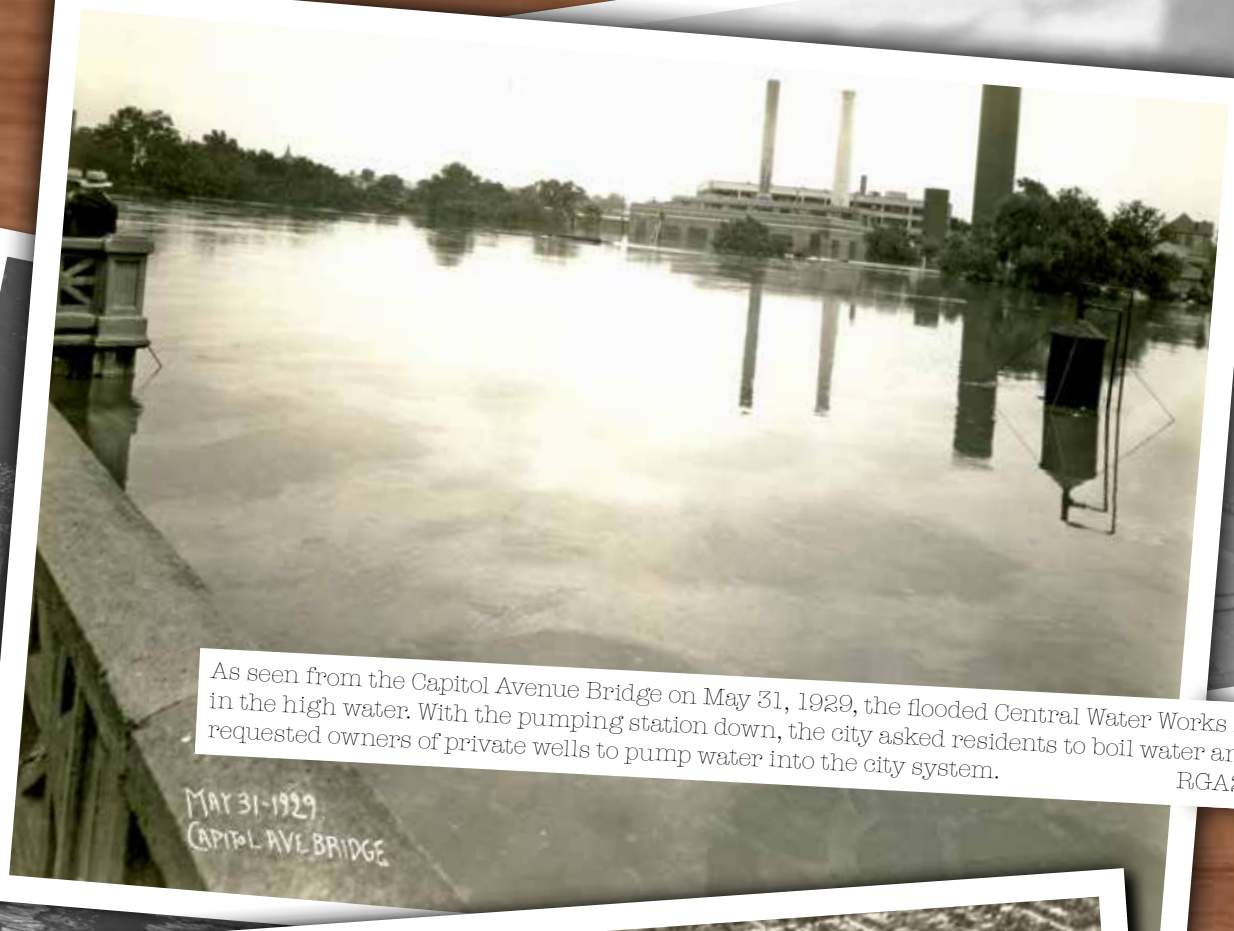
By Joel Draut

Houston will become " ...beyond all doubt, the great interior commercial emporium of Texas." Thus bragged the Allen brothers in an August 1836 advertisement. Thirteen months later rains from a hurricane in September 1837 flooded the city's Main Street to a depth of four feet. This inundation did not deter the city from its predicted destiny – nor did any of the storms and floods that followed. The Weather Research Center, part of the John C. Freeman Weather Museum, lists just shy of 100 significant Houston area floods between 1837 and 1989. Nevertheless, people continue to move to the Bayou City. Whether through resilience or stubbornness, Houston is here to stay.

Houston photographers have chronicled some of the significant storms the city has endured and some of those photos have made their way into collections housed at the Houston Public Library's Houston Metropolitan Research Center. These images give perspective to Houston's latest flooding. Water-born grief is not new; it has woven itself into the fabric of Houston's history from the 1929 and 1935 floods that spurred creation of Addicks and Barker Reservoirs to the government-censored hurricane of 1943 that interrupted wartime production to 1961's Hurricane Carla that saw the City Auditorium pressed into service as a shelter. Houston reacts, recovers, and rebuilds.

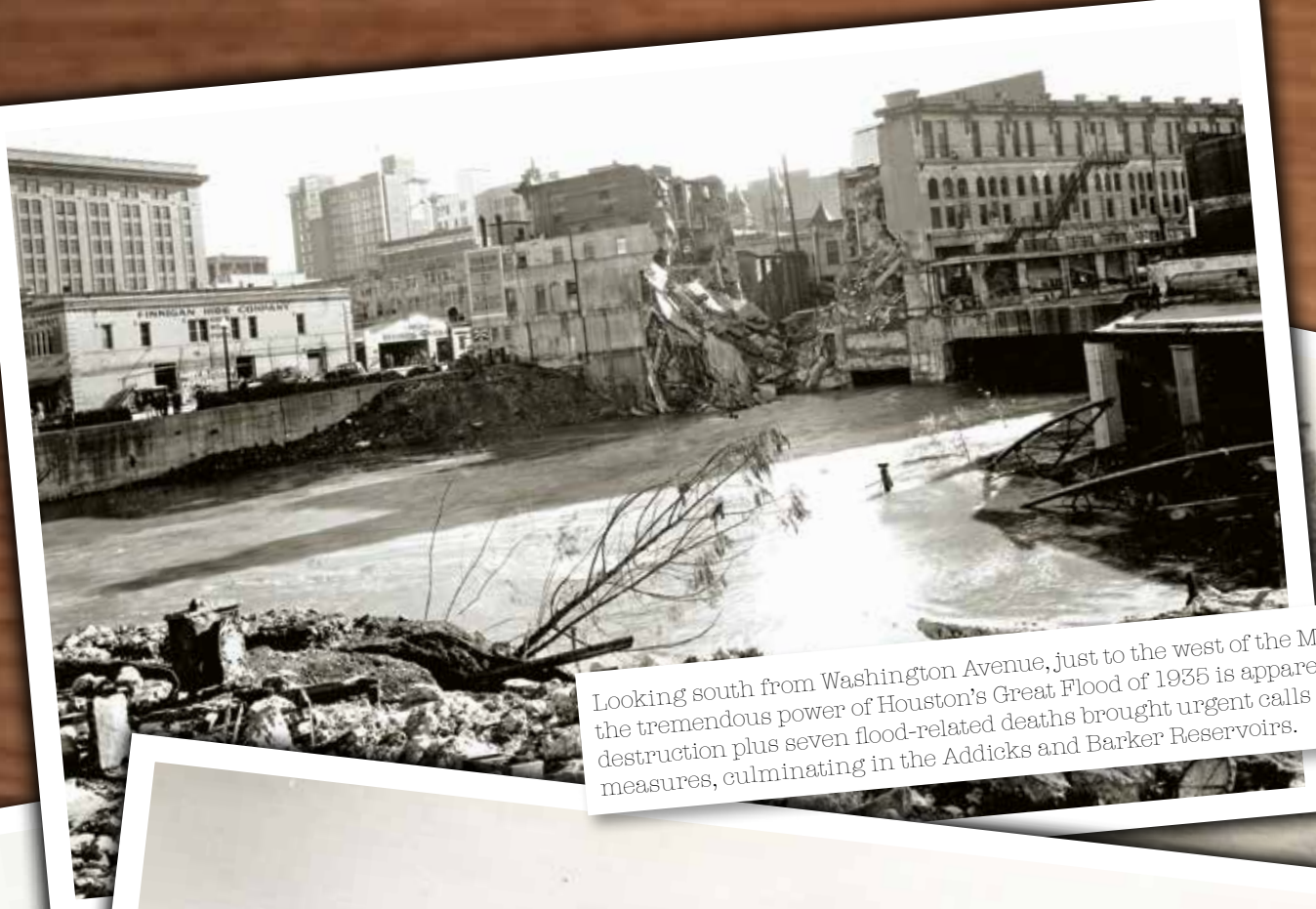
Joel Draut has worked with the photographic archives at the Houston Metropolitan Research Center since 1998. He worked as a photographer at the *Houston Post* from 1977 until it closed in 1995.

Few people braved the swift flood currents of Buffalo Bayou as it coursed around the corner of Franklin and Milam during the Memorial Day Flood of 1929.
All photos courtesy of the Houston Metropolitan Research Center, Houston Public Library, RGA21a-064.



As seen from the Capitol Avenue Bridge on May 31, 1929, the flooded Central Water Works is reflected in the high water. With the pumping station down, the city asked residents to boil water and requested owners of private wells to pump water into the city system. RGA21a-060.

The flooding around Waugh Drive and Buffalo Drive obscures the normal banks of Buffalo Bayou in this May 31, 1929, aerial photo. The large white building (bottom, center) surrounded by flood waters was the Sears and Roebuck store located on Buffalo Drive at Lincoln, now Allen Parkway at Montrose. RGA21a-061



Looking south from Washington Avenue, just to the west of the Milam Street Bridge, the tremendous power of Houston's Great Flood of 1935 is apparent. The wide spread destruction plus seven flood-related deaths brought urgent calls for flood control measures, culminating in the Addicks and Barker Reservoirs. RGA21a-054.

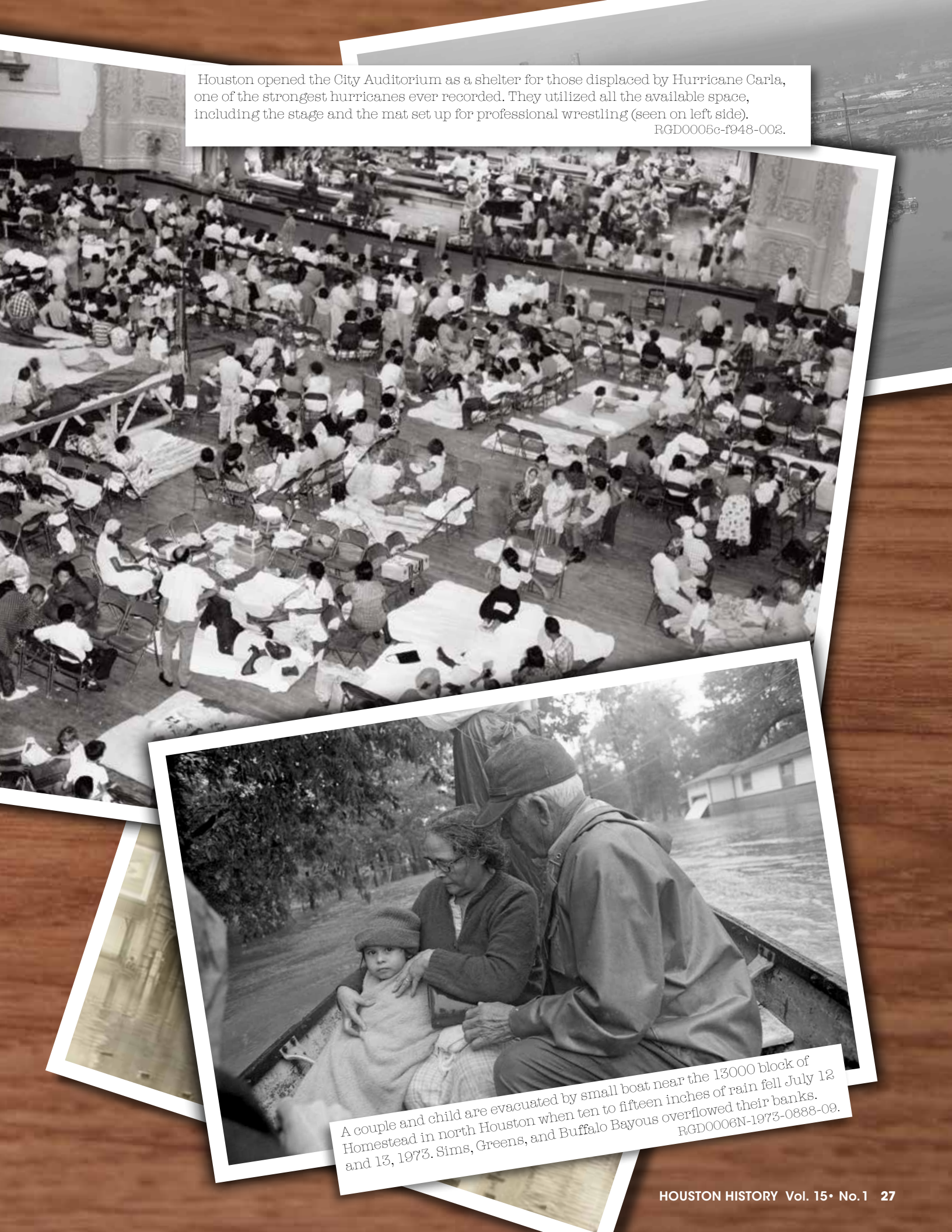
Looking north toward the Southern Pacific Station from the Preston Avenue Bridge, flood waters lap at the bottom of billboards. RGA21a-021.

A reported seven inches of rain brought the Brays and Kegans Bayous out of their banks, flooding about 100 homes on October 30, 1959. In true 1950s style, these people were evacuated in a power boat with tailfins. RGD0006-1533.

Fear of submarine attacks prevented ships in the Gulf of Mexico from reporting the approach of a major hurricane that hit July 27, 1943. After the storm, government censors, worried that Axis powers would learn that war production could be temporarily disrupted, limited news coverage to Texas and Louisiana. Along with refineries, Houston's shipbuilding facilities were damaged as seen here. RG0600-037.

A tropical low dropped five to fifteen inches of rain, causing street flooding in the Sun Valley subdivision, south of Edgebrook and east of the Gulf Freeway, in late June of 1960. The event prompted neighborly visits and motorboat rides. RGD0006N-1960-1530.

Red Cross workers load a mobile kitchen with relief supplies for Hurricane Carla survivors. Atop the truck are Bill Culpepper and James Penez, and supporting the Coca Cola case is Ilene Shave. RGD0005f948c-004.



Houston opened the City Auditorium as a shelter for those displaced by Hurricane Carla, one of the strongest hurricanes ever recorded. They utilized all the available space, including the stage and the mat set up for professional wrestling (seen on left side).
RGD0005c-f948-002.

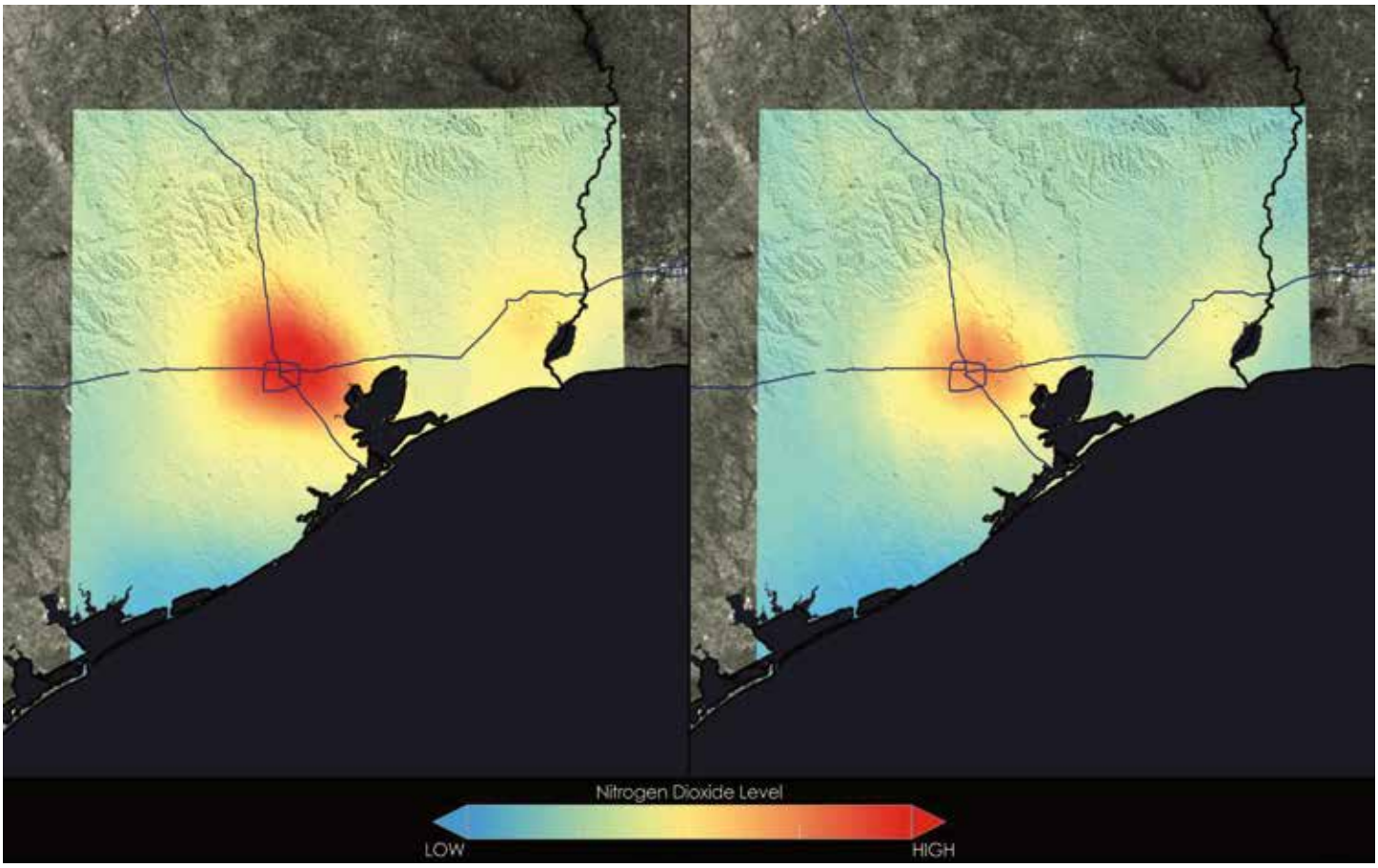
A couple and child are evacuated by small boat near the 13000 block of Homestead in north Houston when ten to fifteen inches of rain fell July 12 and 13, 1973. Sims, Greens, and Buffalo Bayous overflowed their banks.
RGD0006N-1973-0888-09.

Air Alliance Houston:
Working for Clean Air and a Healthy Future
A conversation with Bakeyah Nelson and Debbie Z. Harwell

BAKEYAH NELSON, executive director of Air Alliance Houston, was born in South America and grew up in Silver Spring, Maryland. Her path to Air Alliance follows the trajectory of her education in many ways. She graduated from the University of Maryland, Baltimore County with a bachelor's degree in psychology, where she learned that people often have to work around the system, such as taking part in research studies, to get the mental health care they need. This led her to pursue a master's in sociology and Ph.D. in public policy as she thought more broadly about how external factors and policy impact our environment, our experiences, and our individual decisions.

In 2009 while working with Harris County Public Health, Dr. Nelson was tasked with a project to work with a local community to address environmental inequities. Focusing on Galena Park, she was shocked to see people living in such close proximity to refineries with different types of emissions. Through an open dialogue she learned what issues the community considered priorities and discussed how they might be addressed. The Clinton Drive air monitor was especially problematic, which is how she first became acquainted with Air Alliance. Named executive director of Air Alliance Houston in March 2017, Dr. Nelson is taking on the important quality of life issues faced by all Houston communities, as well as the health inequalities associated with environmental hazards in communities of color and low income. What follows is our conversation on Air Alliance Houston's past, present, and future direction.

Dr. Bakeyah Nelson, executive director of Air Alliance Houston.
All photos courtesy of Air Alliance Houston unless otherwise noted.



NASA's Aura satellite recorded these two images in 2005-2007 (left) and 2009-2011 (right) showing nitrogen dioxide concentrations in Houston, which were largely influenced by industry. The shift from the higher red and orange concentrations to the lower blue and green concentrations indicate a 24 percent decrease in nitrogen dioxide over this time period. Photo courtesy of NASA from wikicommons.

DEBBIE HARWELL (DH): Can you give us a little background on Air Alliance Houston?

BAKEYAH NELSON (BN): Air Alliance Houston was a merger [in 2010] between Galveston Houston Area Smog Prevention and Mothers for Clean Air. Each of those organizations were working to improve air quality but working in different ways. Galveston Houston Area Smog Prevention was really focused on trying to reduce ozone pollution, on that science side, and then Mothers for Clean Air was focused on the community engagement piece and advocacy piece. So it made sense to bring those two together to form Air Alliance Houston, and that's the intersection where we do our work now: research, education, and advocacy … to reduce air pollution and improve public health. From the research lens —we need to know what's going on. Once we know what's going on, we can educate the public, we can educate residents; and then … we can figure out a strategy for what we need to do about it … to reduce exposure and improve public health.

DH: Do you have a mission statement?

BN: We're currently in the process of going through an update to our strategic plan, … but the mission statement is really to reduce air pollution in order to improve public health.

DH: What sorts of things are in the air in Houston that we need to be concerned about?

BN: There are a couple of things as it relates to Houston's air quality. One is ozone. We've never been in attainment of the national standards for ozone, and that should be a concern for the entire Houston region. I don't know if you saw the recent *Houston Chronicle* front page, which showed the big ozone plume over The Woodlands area. The second issue is particulate matter, and although we have been in attainment for the national standards around particulate matter, the Clinton Drive monitor, in particular, has always been somewhat problematic, meaning exceeding the thresholds at given points in time. However, the way that the EPA calculates attainment, it takes a three-year average. Because it's an average over time, when you enter in lower numbers, it brings the higher numbers down. So particulate matter remains a particular concern. … Benzene sticks out to me particularly for communities like Manchester, also 1,3 butadiene, both are emitted through industrial processes as well as from mobile sources. So those are some of the main issues. … There was a task force that was put together by former mayor Bill White [2004-2009], and they identified twelve pollutants present in Houston air they consider high priority, including ozone and $PM_{2.5,}$ benzene and 1,3 butadiene due to their strong association with adverse health outcomes.

DH: Are they high priority because they are carcinogens?

BN: Yes … those are ones that were found commonly in Houston's air and that had strong scientific evidence demonstrating a health impact … not just cancer but other health outcomes such as respiratory illnesses.

DH: How have we changed what we're doing in Houston regarding air pollution?

BN: Because Houston has never been in attainment, we're required to submit a plan of action, our state implementation plan (SIP), to address our levels of ozone. The target has also changed during that time as well. So as the EPA has had better science to understand the levels at which ozone impacts public health, they've lowered the standard as we have learned from the science. For instance, back in 2008 they changed it from 80 parts per billion (ppb) to 75 ppb; and the 2015 standard from 75 to 70; and so the standards have … been lowered as the science builds to show that [the lower level of ozone] … is more protective of public health. … In addition, the air pollution technologies that are available to us have changed. As we've learned more and required more of industry, it has required them to be more innovative about how they actually control their emissions. The challenge that has remained is that industry really cannot be trusted to regulate itself because we see time and time again when left unchecked they will emit tons and tons of pollution into the air. … Also, the way in which we monitor has changed. Houston, although it's one of, if not the most heavily monitored region in the nation, in terms of the number of air monitors, … considering the extent of the area we have to monitor and all of the factors that contribute to air pollution, there are significant gaps in our air monitoring network. We've got one of the largest petrochemical complexes, we've got four million people on the

Smoke billows from burning discarded automobile batteries at the Holmes Road incinerator south of the Astrodome in July 1972, demonstrating the need for air quality advocates like Air Alliance Houston.

Photo courtesy of the Environmental Protection Agency Records, 1944-2006, National Archives and Records Administration, NWDNS-412-DA-11382, from wikicommons.

road, [and]… we don't have a great public transit system. All of these are factors that contribute to the level of air quality. … If we don't force industry to do its part then our air quality is that much worse off and the health of our residents suffer as a result. We all end up paying for that in some kind of way— in our health, our medical bills, [and] our tax dollars supporting agencies who are not enforcing the laws. … So while it's gotten better, it's gotten better because we've required it. It didn't get better because industries felt a moral obligation to innovate on their own to reduce emissions, be better stewards of our environment, and limit exposures to protect public health. As long as we have a system that permits violations without enforcement, we can expect to see that same behavior until it hits their bottom line….

AAH staff receive training from the Community Science Institute on how to build and use air sampling buckets.

DH: What kind of discrepancies do you see between different Houston neighborhoods?

BN: There are very drastic differences between Houston neighborhoods. … Although we experience pollution across our region, everyone who lives here should be concerned because Houston does not have land-use policies in place that prevent facilities that are potentially hazardous from coming into neighborhoods and locating themselves near schools, near homes, near hospitals, etc. In addition to that, we also don't have land-use policies in place that prevent the siting of schools near major traffic roadways or hospitals and so on. In public health we look at the root causes of issues … What are the policies that create this environment in which we live? So there's an absence of some policies that could better protect neighborhoods; and, unfortunately, communities of color and low-income communities, the majority of the time, seem to bear the brunt of these types of decisions or the absence of decisions.

For instance, majority communities of color along the Houston Ship Channel are where you see higher exposures because they're in much closer proximity to these refineries; there are also other sources of pollution … in neighborhoods not along the Houston Ship Channel, which also overconcentrate themselves in communities of color and low income. When you think about what fuels that behavior, perhaps, the land value is reduced; there's also a perception because historically these same communities have been stripped of their rights in some ways to get involved; and then there's just the issue of environmental racism, specifically targeting communities because you know it's going to be easier, it's going to be cheaper [because] these communities historically don't have as much political weight behind them to fight back. ... And other types of companies are not going to want to invest there. So companies that can actually bring the value up for these communities, make the quality of life better in these neighborhoods, are really not going to want to invest there. … Some communities [are] dumping grounds for industries, and until we actually address the underlying issues that permit this type of behavior … we're going to continue to see differences in communities, exposure to air pollution, and the subsequent health outcomes. Communities of color and low-income communities as well, are already more compromised. There's already a higher rate of chronic diseases, higher rates of premature death, and … there's less access to health insurance.

So you can begin to paint a picture that now is self-perpetuating because no one is really doing anything about the underlying root causes of those issues. We do things like put Band-Aids on issues instead of having serious dialogue about things that need to change. To have people in the twenty-first century, in 2017, still living in close proximity to refineries that we know, and the science has shown in … study after study that people are at increased cancer risk, to continue to permit this is immoral and something should be done about it. … [Houstonians] pride ourselves on freedom and independence, [but] I think it's important that we make a distinction between property owners; land owners have rights, but a home owner is also a property owner and no one should be able to come into your community and compromise your health status, regardless of who they are, … and depress your land value, which impacts your ability to grow wealth for yourself and your family….

DH: Historically, what health issues or illnesses appear in larger numbers?

BN: The spectrum of illnesses that we've seen that are specifically related to living in close proximity to these types of facilities are mainly increased risk of cancer, increased risk of respiratory disease and triggers like asthma attacks, and then also headaches, dizziness, and those kinds of responses. … Newer studies suggest that there are thousands of preterm births that can be attributed to exposure to particulate matter. … The studies that just keep coming out about how bad particulate matter exposure is across the spectrum of health issues, triggering cardiac arrest, stroke, lung cancer, preterm births and low birth weight … we need to do more to lower our exposure to fine particulates.

DH: What is the Houston region's official position on withdrawal from the Paris climate agreement?

BN: The city itself has [pledged to uphold the agreement], and the mayor [Sylvester Turner] is the co-chair of the nationwide Climate Mayors group. … He has made a commitment to addressing climate change locally if our national government is not going to take the lead. So at the city level, I assume we do have plans to look into how we

AAH community outreach director Leticia Ablaza meets with Council Member Michael Kubosh about air quality concerns near Hobby Airport. Leticia's son is on the right.

can best address climate change. For example, the city has pledged to cut city greenhouse gas emissions by 80 percent by 2050. The implications for Houston, specifically, mean increased flooding, increased heat, and increased deaths from these events … Who is impacted by that. If we look at, for instance, increases in heat, we have a lot of people who are employed by the construction industry and they work outdoors. … It will impact industry's bottom line at some point, if it hasn't already, because you can't physically have people outside working in extreme heat. … The challenge with climate change is to make those examples tangible in terms of how it's already impacting people and businesses on a daily basis and how it will continue to impact us.

DH: How is Air Alliance addressing the change in the Trump administration's stance on environmental issues?

BN: Some of this is still to be determined because, as I mentioned, we're still going through our internal process—but we as an organization really need to expand our reach and get more funding to be able to grow our capacity to address issues, whether it be more litigation, more research, more advocacy, … [we] need to broaden our base in terms of who is involved or interested in Air Alliance's work. … This is not just an issue of air pollution, right? It's a broader public health issue. If air pollution triggers an asthma attack, that asthma attack has implications not only for the public health system but it also has an implication for the education system. If a child has an asthma attack, they miss days of school; if they miss days of school, they're at increased likelihood of falling behind. It's also an economic issue for the parent if [their child] has to stay home from school, they miss days of work. If they have to take the child to the doctor, it becomes a transportation issue if they don't own a car or have access to public transportation that can take them where they need to go. … So if we start connecting the dots to these issues it demonstrates that we all need to be working collaboratively on these issues … [that have] very tangible, direct impacts on people's daily lives in multiple areas and ultimately determines how well and how long we live.

DH: What sorts of research initiatives either alone or in partnership with other groups has Air Alliance undertaken?

BN: There are two sources of potential air pollution that we're currently working in. One is a metal recycling study that we're doing in partnership with UT School of Public Health looking at exposure to air pollution from metal recyclers. That study is very unique in that we have the metal recyclers involved. … We have a community advisory board, and we meet both with the residents and the companies and they give us feedback regularly. Once the study is done they will help inform what will go into our public health action plan … Some of that work was started because the city of Houston did an investigation several years ago and found elevated levels of air pollution coming from metal recycling facilities and excess cancer risk associated with that. … The metal recyclers were at that point wanting to get involved to do a more comprehensive study. That is a five-year study, and we're now going into year four.

Another research study that we're doing is in the city of Pasadena. We are going to do particulate matter air monitoring in Pasadena, similar to the Galena Park study we did several years ago … hopefully, to pass an anti-idling ordinance to reduce residents exposure to diesel pollution. … [We will] collect the air monitoring data, do a community survey to find out residents' perceptions and what they want us to do about it, and then use that information to then say, "Hey, we've got elevated levels of X, this is what we can do to reduce those levels and here's what the community wants, and how we can work together to make this happen."… The aim of [the ordinance] is to reduce the diesel emissions from trucks.…

The issue with policy in general is that even when we can successfully get a policy passed, there is also the enforcement of that policy, and … the circling back to figure out how effective that policy was … in other words – did it have the intended impact… Passing policy is not the last stop on the journey to addressing a particular social issue because, as we know, there are a lot of unintended consequences that come along with implementing public policies. … That also speaks to why it's important to have a diverse set of stakeholders at the table. … [For instance in] the metal recycling study, there are things that the metal recyclers can provide insight on that we wouldn't necessarily think about. It's our job also to make sure that whatever we're pushing forward is actually substantive and will make a difference and is not necessarily watered-down….

DH: What kinds of community engagement does Air Alliance do to increase awareness about air quality in Houston?

BN: We do it in different ways. For instance, we have Ozone Theater to educate children in K through eighth grade, and then we also have Air Pollution Solutions for high school students. We also do studies, like the ones that I just mentioned, and a lot of the success or failure of that work really relies on our ability to engage with community members and to make them aware of what we're doing, to make them aware of the possible sources of air pollution in their community, and then to come back after the fact … saying, "Hey, this is what we found, this is what we think we need to

AAH staff members Paige Powell, director of operations, and Paula Torrado, community outreach coordinator, participate in the Latino Youth Leader Summit to raise awareness about air quality and public health.

do. What do you think we need to do and how can we work together to make that happen?" Our ability to even advocate for an anti-idling ordinance, the power in Air Alliance doesn't rest with Air Alliance per se, it rests with the residents and the extent to which the community becomes engaged, so it's very much a partnership and we very much rely on each other to develop and advocate for solutions. We get invited quite a bit to go to educational events … [and] participate on panels at various events in Houston that are focused on environmental health issues.

DH: At what point would Air Alliance pursue some kind of legal action on behalf of the people in the community, or does that happen?

BN: Air Alliance Houston does not have any in-house legal or litigations arm per se, but the way in which we get involved in litigation is, for example, in the case of Pasadena Refining, which is one of the worst polluters in the state of Texas … Air Alliance Houston's role in that process was to, number one, monitor, when we noticed that Pasadena was having all of these emissions events, [and] contact local agencies and say, "Hey, … Why are all these emissions happening and what's being done about it?" … Then getting residents engaged in that … getting the media involved when needed to raise awareness among the broader community, … and engage local agencies that are required to investigate these types of complaints. Eventually, because they were a repeat offender, Harris County filed a lawsuit against Pasadena Refining. So in that sense, it isn't Air Alliance who is doing the litigation against this company but we were very involved in raising awareness to the point that the county has now filed a lawsuit … The other way in which we get involved in litigation is … [when] we feel that an issue [is] important, that has local implications, we will sign on to a lawsuit against the EPA, like the recent delay of the chemical disaster rule [conducted by a national organization like Earth Justice].

DH: What is your goal personally for Air Alliance?

BN: My personal goal for Air Alliance, first, is to be responsible for starting the dialogue about the root causes [of pollution] and moving that conversation forward in Houston. … Then, secondly, I really would like to get some type of policy in place which prevents … the overconcentration and the over siting of environmentally hazardous waste facilities in communities of color and low-income. … I would be proud for the city of Houston and our region … if we could be leaders in acknowledging that, yes, historically we have permitted environmentally hazardous facilities to be located near people, but we don't have to continue historical patterns of behavior and we can and will do better moving forward, by implementing sensible policies that protect the public health of our residents.

DH: How would you respond to people who say, "they can move somewhere else"?

BN: I would say absolutely we want people to be able to move when their health is being put at risk, and that's why people need living wages. … Let's make that happen so they can move somewhere else. … It's misleading to say that people can move wherever they want. … Particularly when you're talking about a low-income family because you need your income for the other resources needed to survive—for food, getting to and from work, if you have a chronic disease, these are all very real tangible bills. … They should have an option not to live next to a refinery, but to make that a reality we need to have a conversation about how we pay people and affordable housing. Also, we need to think about the implications of a family moving – particularly those that have lived in a community for many years. You have relationships – social networks that can be invaluable resources when raising a family, and those networks people rely upon would be severed. So, on multiple levels, picking up and moving one's family is not as black and white as it seems.

DH: Is there anything we haven't talked about that you'd like to mention?

BN: We have to get to a point where we're comfortable talking about race or at least being comfortable with the discomfort. … If you look at what our demographic projections are, particularly in Houston, we're already a majority-minority city, but if we look at even the broader region and when we look at the country itself, until we are able to really delve into these issues, I am somewhat pessimistic as to the future of where our country is heading. Because you have a majority of the population that is continuing to be left behind – economically, socially – continuing to be disrespected and constantly having their rights violated, … being [intentionally] excluded from various decision-making structures that impact their daily lives. [Race is] very relevant to the conversation about environmental health and air pollution and even if you look at Flint, Michigan, with the water issue; again, it's 2017 and … we need to acknowledge our mistakes, hold people accountable, and get comfortable with having really difficult conversations about how we are going to move forward collectively, because it impacts each and every one of us.

Debbie Z. Harwell, Ph.D., is the editor of *Houston History*.

WHAT SHE WAS THINKING:

Nina Vance's Role in the Creation of the Alley Theatre on Texas Avenue

By Catherine Essinger

The Alley Theatre's second home was a converted fan factory on Berry Avenue, with an arena stage that seated 310. The space was so tight that a man sitting in the front row once reached out and lit an actor's cigarette in the middle of a scene when the prop lighter broke.
Photo courtesy of the Houston Metropolitan Research Center, Houston Public Library, RGD0006N-1955-0751-001.

The Alley Theatre Company's concrete fortress on Texas Avenue reopened in September 2015 following its first major renovation. Studio RED Architects' overhaul of the facility sparked accusation, argument, and eventual acceptance in print and online (the three stages of grief in building renovations). Many of the improvements are unquestionably positive, such as better sight lines for the Hubbard Stage, more stalls in the women's restroom, increased wheelchair-accessible seating, and a new second floor bar. The meatier changes, however, were aimed at improving the dressing rooms and backstage areas over, under, and around the Hubbard Stage. Naturally, the alterations aimed at employee accommodation were more controversial than those aimed at audience comfort.

The project's lightning rod was a tall fly loft, clad in eye-catching zinc, which glared down from the Smith Avenue edge in early renderings. The fly loft, which is used to hoist scenery, lights, and other theatrical matter above the stage, inspired the anger of preservationists when archpaper.com published a feature on the renovation in December 2014. Ben Koush published a disparaging article titled "The grain silo plopped atop the Alley" in the *Houston Chronicle* on December 17, 2014. In response, the Alley's managing director, Dean Gladden, and others defended the changes they considered necessary and overdue. Alley representatives had long been frustrated with the space's inherent limitations and argued that the original design was short-sighted and underestimated the technical needs of postmodern productions. In a *Houston Chronicle* article on December 18, Gladden teasingly laid the blame before the feet of the person most responsible for the building's original sins – not architect Ulrich Franzen or Hugo Neuhaus, the committee chair who selected Franzen, but the Alley's first artistic director, Nina Vance: "There's a rumor – I don't know if it's true – that Nina Vance never wanted to have touring shows to play in her theater. So she made sure that touring shows *couldn't* come through."[1]

Nina Eloise Whittington left her hometown of Yoakum, Texas, to study theater at Texas Christian University, where this photo was taken. As a postgraduate she studied at the American Academy of Dramatic Art, Columbia University, and University of Southern California, before moving to Houston to teach drama and speech at Jefferson Davis and San Jacinto High Schools.
Photo courtesy of Special Collections, University of Houston Libraries.

Much of the negative criticism directed at the squat concrete castle has been aimed at Nina Vance since its completion in 1968, especially when the criticism dips into vague condescension. Take, for example, George Izenour's description of the "nonarchitectural black-box" Neuhaus Stage in his book *Theater Design*: "…virtually a carbon copy of Director Nina Vance's earlier successful theater improvisation in an abandoned factory, and like its prototype it works – that is, if you like intimate theater in the round." Izenour, who designed the theater's lighting grid, gives credit for the Hubbard Stage to Vance and stage designer Paul Owen, with architectural design by Ulrich Franzen. "I therefore only conjecture as to design intentions and the forces operating upon Miss Vance," he writes before belittling the building's materials, style, and inflexibility.[2]

This tendency to lay responsibility at the feet of the artistic director and not the architect is not as perverse as it might appear. Nina Vance was no mere board of trustees hire. She was a co-founder and, when the building opened in 1968, she had been the controlling force at the theater for twenty-two years. Although the original idea to estab-

lish the Alley Theatre was not hers, she was responsible for nearly every artistic and financial decision that guided the theater's development.

The Alley began as a diversion for theatrical hobbyists with more than one hundred voting members. (Membership was famously open to anyone for the cost of ten cents.) From the beginning, Nina Vance constantly fought to create a theater company based on her own vision, despite limited or no funding. She negotiated with fire marshals, manipulated volunteers, and battled with members who disagreed with her about plays, staffing, and Equity status. In 1952, she was able to force a vote that gave her full artistic and managing control of the theater. That ushered in the era of Nina Vance's benevolent dictatorship, a period of extraordinary growth and risk-taking. Under her exclusive command the Alley joined the Actors' Equity Association and developed a national reputation, attracting numerous leading actors and directors from Broadway. Vance aggressively cultivated a relationship with the Ford Foundation, which was then focused on developing regional theater. It was Ford Foundation money that allowed her to first hire a company of professional actors and eventually build two stages on Texas Avenue.[3]

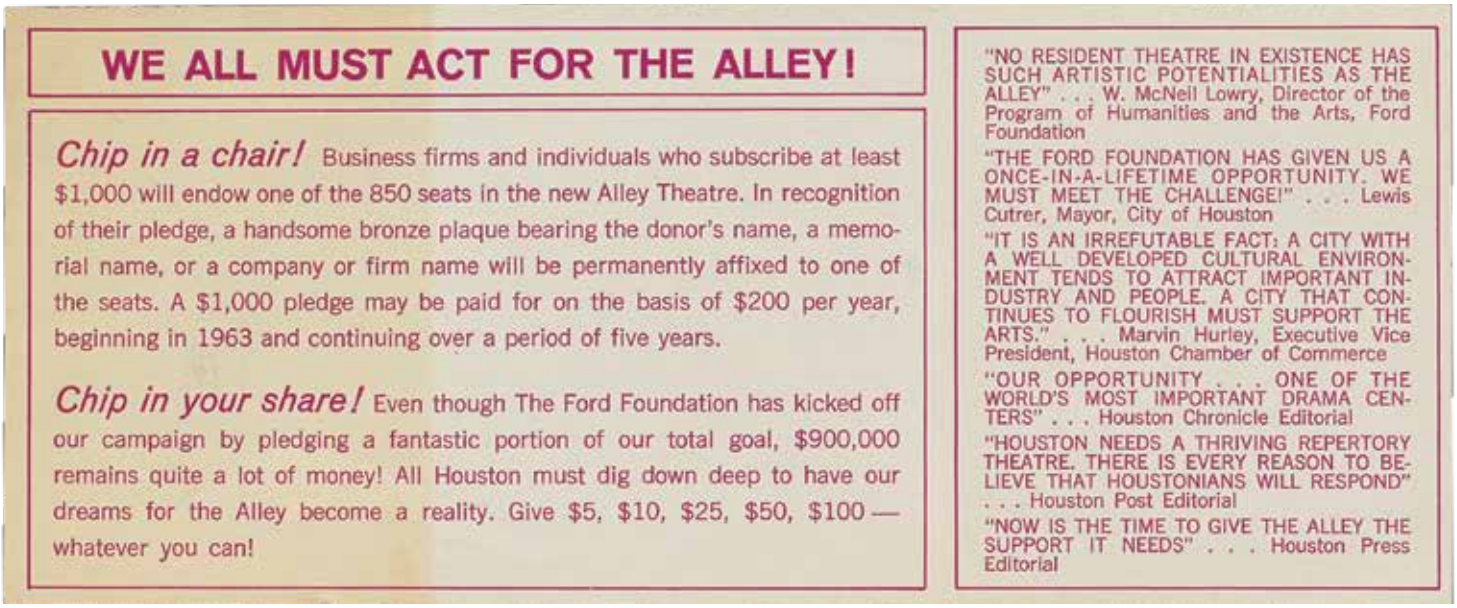
In 1962 she decided that her company had outgrown its location, a 310-seat converted fan factory on Berry Street. A determined Nina Vance acquired land from Houston Endowment and funds from the Ford Foundation. Her hand-picked board appointed a fundraising campaign committee and a committee to select an architect.[4]

The latter was chaired by Miesian architect Hugo V. Neuhaus, Jr., whose service to the Alley Theatre is evidenced by the arena theater being named in his honor. Houston-born Neuhaus was educated at Harvard Graduate School of Design (HGSD). His successful practice is best-known for the elegant houses he produced in the fifties and sixties, a period which found him at the height of his architectural and social powers. He served on the Board of Trustees at the Museum of Fine Arts, Houston, where he eventually became a life trustee. One of his services to that institution was to chair the Building Committee that selected Ludwig Mies van der Rohe to design the 1954 addition. In 1962 he was asked to perform the same service for the new Alley Theatre building. It is possible that Nina Vance and the Board of Trustees anticipated another Mies van der Rohe commission, or, at the least, another internationally known architect. With Neuhaus overseeing the committee, they would certainly have anticipated another cool modernist. Neuhaus's committee, however, championed an unexpected contender for the Alley's commission, giving another HGSD graduate his first major commission.[5]

Ulrich Franzen, seen here in the late 1970s, won the 1972 Bartlett Award from the American Institute of Architects for his Alley Theatre design. The award honors designs that overcome architectural barriers. Photo courtesy of Josephine Franzen.

Ulrich Franzen, the man selected to design the new Alley Theatre, was born in Germany and worked in I. M. Pei's office before establishing his own firm in 1955. Much of his early work was residential. He had never designed a theater before the Alley. His career was clearly on the rise in 1962, however, and the Ford Foundation backed his selection. The foundation provided another grant of $1.4 million which was issued specifically to support innovative theater architecture.[6]

Nina Vance, who had maintained control over the Alley creatively and financially for so long, could not have felt comfortable at this time. Her character was audacious, but a multi-million dollar public project was beyond her ability to control and, sometimes, understand. Her concerns and hopes for the building are on record in the Nina Vance Alley Theatre papers, archived in the University of Houston Libraries' Special Collections. In November 1963 and January 1964, she sent Ulrich Franzen a series of



In 1962 Vance acquired a gift of land from the Houston Endowment and a $2.1 million grant from the Ford Foundation to build a large modern theater. To secure the grant, however, the Alley had to raise an additional $900,000 locally. The citywide campaign raised $903,000 from more than 25,000 individual donors. Photo courtesy of Special Collections, University of Houston Libraries, used with permission from the Alley Theatre.

By the 1960s Vance, seen here directing a 1962 production of Becket*, had developed a national reputation. She was invited by President John F. Kennedy to serve on the National Culture Center's advisory committee and appointed by Secretary of State Dean Rusk to the U.S. Advisory Commission on International Education and Cultural Affairs.*

Photo courtesy of the Houston Metropolitan Research Center, Houston Public Library, MSS0157-0665.

letters detailing her design needs and philosophy, which are organized into practical and thematic sections. Those notes provide much insight into the design project and the culture of Vance's Alley Theatre.

Vance did not lightly enter into her interactions with Franzen. Before she began communicating with him she toured facilities, read on the subject of theater design, corresponded with George C. Izenour, and personally facilitated discussions with each staff member about their space needs, even sending Franzen notes from her conversations with interns and volunteers. She wrote disapprovingly of the experience of her peers at the Arena Stage Theatre in Washington, D.C. who "…wanted no collaborators or consultants."[7]

Vance did not attempt to bluff her way through the design process in these notes. She acknowledged gaps in her own knowledge and entreated her architect to "…teach me about materials, textures…I want to know and understand." She insisted on knowing more about Izenour's findings on acoustics, even after being put off by Franzen. "I know that you told me that acoustics was an inexact science," she wrote him before insisting on a consultation with Izenour.[8]

Intelligently, Vance also attempted to communicate with her architect in the language of existing buildings. Her two touchstones were the Mummers Theatre in Oklahoma City (later the Stage Center) and the Arena Stage in Washington, D.C. – two other regional theater companies nurtured by the Ford Foundation. Mummers, which was under construction at the same time, guided technical decisions. Arena served as a cautionary tale. She toured both buildings, knew their artistic directors, and used those structures to convey to Franzen what she hoped to achieve and wished to avoid. Included among the documents she sent to Franzen are the Mummers Theatre program, her notes from touring that site, and the text of a speech made by Arena stage director Zelda Fichandler, titled "The Collaboration of Architect & Client in the Planning of Arena Stage." She also investigated the technical systems of the Guthrie Theater in Minneapolis and decided she wanted their telephone system in the Alley.[9]

The Arena Stage Theatre in Washington, D.C. opened its theater-in-the-round stage in 1961. Sharing many qualities with the Alley, the Arena Stage was a fast-growing regional company co-founded by a long-time artistic director, which outgrew a repurposed building (an abandoned brewery) with Ford Foundation money. Like Franzen, Arena Stage architect Harry Weese was a highly pedigreed but still emerging architect. The architect/client relationship between Weese and artistic director Zelda Fichandler, therefore, may have mirrored that of Franzen and Vance. "The architect, who had never designed a theater before, leaned heavily on the experience built up by the client," reported *Progressive Architecture* in 1962. Nina Vance consulted with both Weese and Fichandler, though she disapproved of the starkness of their building and many design elements. As she was unable to communicate what she did like to her architect, she could use the Arena to explain what she did not like. She negatively described low ceilings, a dim and severe lobby, and drab building materials. She longed for a more "joyful" building: "Would it look different…if it had trees or some frivolity to counterbalance the clean, firm look?" She recognized, however, that her objectives and conditions differ from Fichandler's. "It's a winter building," she wrote Franzen, "Well after all it's only used in the winter. I am going to play spring and summer and skip the fall." (Then, as now, the Alley operated year-round.)[10]

The Alley Theatre grew at a whirlwind pace, becoming an Equity company only seven years after it was founded. As the producer, director, and business manager, Nina Vance, shown here in the 1950s, rapidly became a local celebrity.

Photo courtesy of Special Collections, University of Houston Libraries.

Mummers Theater, on the other hand, was a huge influence. The exterior of John M. Johansen's now demolished fortress of decks and turrets was reminiscent of those used at the Alley. Both theaters house two stages surrounded by function-determined silos. Vance also wanted to learn from the Mummers's interiors and technical spaces. She was keen to follow the Mummers's model and have two lobbies in

order to minimize noise. This would allow her to run two plays simultaneously. More importantly, she hoped to avoid the cost of a fly loft by using the alternative system installed in Mummers, "The manner in which [managing director Mack] Scism intends to fly scenery is a very simple one that David Hayes designed and seems economical, easy and good. I would have to first find out precisely what it is and check it out carefully with my own technicians. It is doubtless not more than chains but I think it would work. This system does not require a tall fly gallery and without this height, a small amount of cubic footage is saved." (She may have been referring to David Hays, who was also associated with Scism at the National Theater of the Deaf at the time of his death, according to Scism's *New York Times* obituary.) It is clear, therefore, that Vance was not trying to prevent the presence of touring companies. She was, instead, hoping to install a cost-saving compromise. This alternative would still limit lighting options and prevent some special effects, however.[11]

It appears that Nina Vance was willing to compromise in matters of taste, as well. Her personal style was well-established and easy to identify. Her personal papers are brimming with its evidence in portraits, wedding artifacts, and other mementos. Her clothes were modern, formal, sculptural, and feminine in a straightforward, elegant way. Her theater on Berry Street, which was altered to suit her, bore the same qualities. She and her volunteers created an understated lobby, a sophisticated, eye-catching façade, and an unexpected touch of class with the installation of old elevator doors, which served as a gate at the entrance alleyway. Her notes show that she and Franzen engaged in a polite tug of war over the style of the new building. She had a complicated appreciation of brutalism, the architectural style Franzen had then recently embraced and with which he is now most associated. Brutalism, which is characterized by exposed rough concrete and large modernist block forms,

The new theater brought a triumphant Nina Vance, seated on the Hubbard Stage, and the Alley Theatre much attention when it opened in 1968. The completed design won an additional Ford Foundation grant of $1.4 million to support innovative architecture for the theater.

Photo courtesy of the Houston Metropolitan Research Center, Houston Public Library, MSS0157-0663.

Despite differences in their personal styles and experiences, Franzen and Vance worked closely together throughout the theater's five-year design and construction.

Photo courtesy of the Houston Metropolitan Research Center, Houston Public Library, MSS0157-0664.

flourished in the sixties and seventies. Vance praised the work of exemplars like John Johansen and Paul Rudolph and endorsed brutalist design elements, like concrete arches. She repeatedly expressed longing for something bright and romantic, however, qualities that were anathema to brutalists like Franzen. "How can the building be warm?? and elegant??" she insisted. "This building must not look like a bank or a store or a post office – it is a house – a house of dreams." This was reiterated when she asked Franzen, "But are humble materials good in a building of oblivion and dreams...?" She, again, uses the Arena Theatre to convey her fears to Franzen, "If the gymnasium were changed…and the lobby less severe – I miss a joyful thing. It's such a serious building. I have said I don't believe theatre is a circus but it is a delight." This was at odds with Franzen's own preferences. Like other Harvard graduates of his era (Rudolph, Johansen, Victor Lundy), he swerved to embrace the unadorned, straight-forward brutalism in the mid-sixties. The Alley's final design makes clear that Franzen won the battle of style.[12]

On matters of substance, however, Franzen was able to meet Vance's long list of reasonable demands outlined in her letters. She preferred that the audience descend into a theater, which she considered "…common to all good theatres…" She repeatedly expressed concern about the flow of human traffic through and around the theater, so Franzen filled the facility with a series of alleys (through the restrooms, past the box office, etc.). She saw the benefit of a green room, but showed no enthusiasm for a VIP room. She dutifully reported that they "…want a bar for members…" but her tone suggested that she did not care to have the members hanging about. She was, after all, plagued by the mob-rule of the Alley Theatre's membership in earlier years and the board of directors was then making important decisions about the new building's architect, site, and budget, which discomforted her.[13]

Her creativity was often evident in her notes. For example, she wrote, "I am intrigued with the idea of diverting the eye away from the stage until performance… Are there rooms where great pieces of sculpture are lighted to give the eye an adventure before show time?" (Notably she does not expect the interior architecture to provide this service, more evidence that she was unable to engage with building details.) Franzen also accommodated her only true flight of fancy: the mind-blowing suggestion that, "A drive-in ticket window has never been done at a theatre. Texans might like it." The Alley's drive-through will not actually take patrons up to the ticket window, but it comes close.[14]

Her desire to give her audience of Texans whatever they might like is evidenced throughout her letters to Franzen. She wanted the money to serve the public spaces, not technical spaces or offices: "All I'm saying, is priority. The non-public spaces just can't be gold leaf – or spacious maybe." She was fixated on the audience's experience of the theater. (Can the lights be hidden until the beginning of the plays for pleasant effect? How should the ladies be expeditiously routed through the restroom?) Her only guidance concerning the concessions counter was, "…I am hopeful that this matter not be totally settled on a point of economics, but settled considering the audiences' pleasure as much as possible."[15]

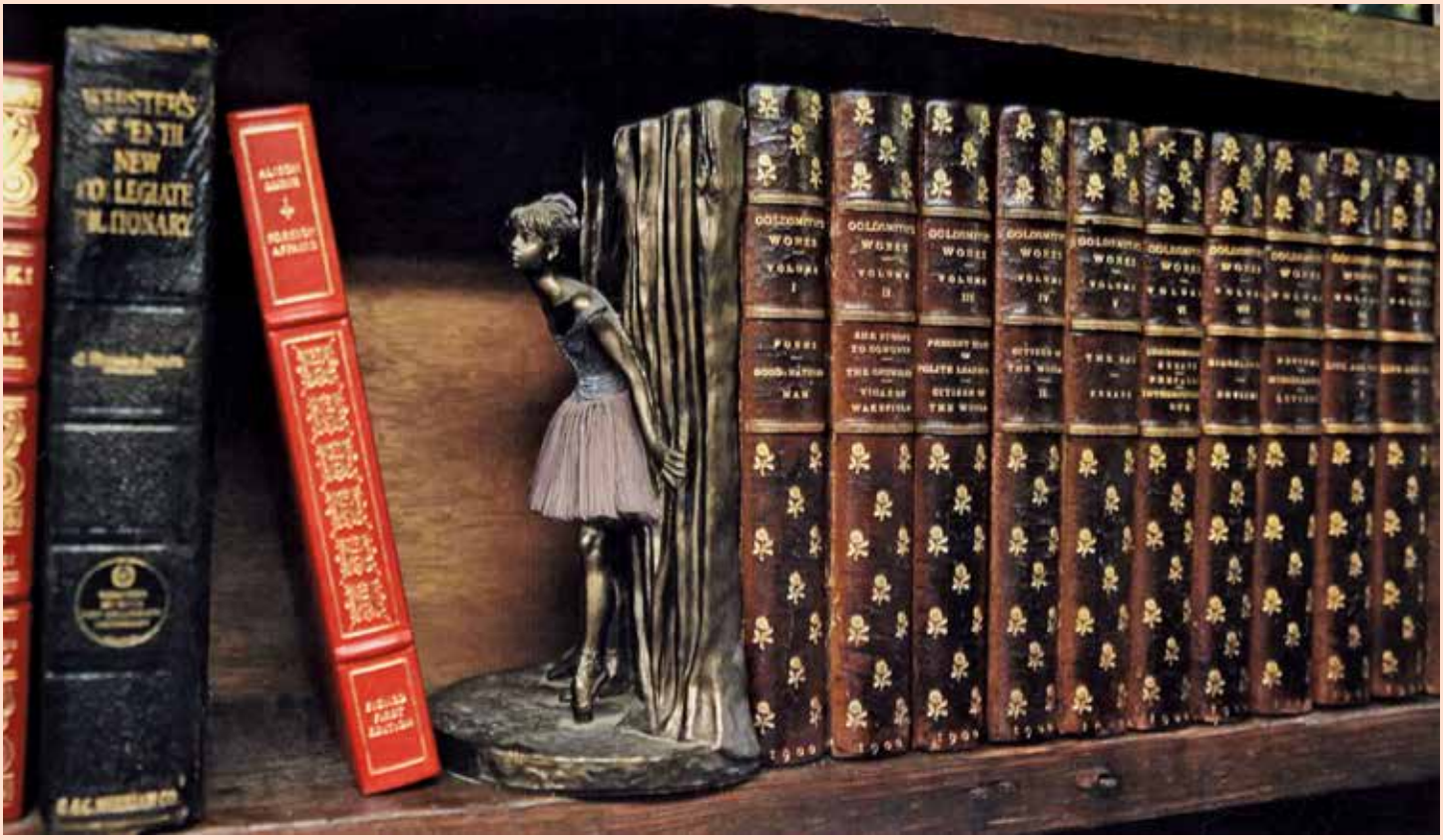
The Alley Theatre underwent a major renovation by Studio RED Architects in 2015, which added a fly loft above the Hubbard Stage and altered the seating. Photo courtesy of author.

Economy was the main factor in her planning and prioritizing, however. By the time Vance wrote to Franzen, she knew that the Ford Foundation and the local fundraising committee had secured more than three million dollars for the building project, but she was convinced that this sum was not enough. She feared the site was too large and the program too ambitious: "Will it be an island on the site which I think will be much larger than we need?" Her financial worries informed key decision-making about technical and employee spaces, as well as the building's dimensions. She decided that her theater could do without some staff conveniences and artistic options to focus the budget on public spaces. She gave Franzen few notes on administrative needs, a third of which refer only to the mail room staff. An outer office is just needed for: "Dictation, actors' files, budget study, hiring and firing actors, gossip." She spends even less time on backstage facilities. She, again, delegates to the expert (in this case stage manager Bettye Fitzpatrick, who worked at the Alley for fifty-four years and became best known as a member of the acting company). Funding concerns also motivated her decision to veto a fly loft.

Had Franzen had previous experience in or deeper knowledge of theater design, he may have persuaded her to better develop the functional spaces. George Izenour implies in *Theater Design* that Vance's inexperience with a large thrust stage prevented her from developing a fully functional theater. For her part, she claimed Izenour's one blind spot was in "…the matter of worshipping a functioning space to the disregard of architectural artistry." Vance acknowledged her own limitations in her notes to Franzen on "Auditorium, Stages," saying, "I keep skirting mentally the problem of the main room as though it were something that I was afraid of. Perhaps I am since I have always worked in this small arena. I know I'm not afraid to work on any stage anywhere but I seem unable to go through the problem of a stage for the future." Notably she only offered Franzen lightning notes for the arena stage.[16]

The building was dedicated on October 13, 1968, after two years of construction. Vance planned a memorable and highly publicized opening night. Guests included Robert Stephens and Maggie Smith, from the National Theatre in Great Britain, as well as NASA's entire astronaut corps and their wives. Guests paid up to one thousand dollars for a ticket to the first night performance of Bertolt Brecht's *Galileo*. The building was featured in *Architectural Forum*, *A+U* and other architectural periodicals. The theater earned Ulrich Franzen & Associates the Bartlett Award from the American Institute of Architects in 1972. The award jury declared: "Inside and out, a brilliant theatrical event and a striking work of architecture. Faced with intimidating surroundings, the architect has responded with a bold and confident plastic expression that gives this building a memorable presence on the urban scene. The interior spaces have been skillfully designed to enhance the excitement and ceremony of theatergoing." Accolades were not Franzen's alone. "The design of the building was left entirely to Nina Vance and the architect she chose," proclaimed *Architectural Forum* in its March 1969 issue. "[Franzen] had the one qualification that Miss Vance valued most: he was willing to analyze the theater's needs without imposing any preconceptions. Franzen proved to be 'a good student,' she recalls..." Vance may have been justified in taking some credit for the building's initial success, but she also bears some responsibility for its technical limitations.

Catherine Essinger is the coordinator of the William R. Jenkins Architecture and Art Library at the University of Houston, as well as the Women's, Gender and Sexuality Studies Librarian. Her writing has appeared in *Cite: a Publication of the Rice Design Alliance*, *Collaborative Librarianship*, and the *Handbook of Art and Design Librarianship in Higher Education*. She co-curated the exhibit "Nina Vance and The Alley Theatre: a Life's Work" at the University of Houston in 2014-15.



While the nineteenth-century bookstores may be a thing of the past in Houston, one can still locate books from that era, such as these at Becker's Books, owned by Ann and Dan Becker. Photo courtesy of Ann Becker.

The Evolution of Houston Bookstores

By Aric Richardson

An often overlooked and swiftly fading part of our regional culture is the Houston bookstore. In the 1860s early bookshops in Houston were not only purveyors of books, but were also the main source of printing, news delivery, and music. But what has happened to the bookselling industry between then and now? Today Houston's brick-and-mortar bookstores still provide a unique sensory experience, but many have come and gone, leaving little or no legacy.

> **"A place isn't a place until it has a bookstore."**
>
> —Gabrielle Zevin, *The Storied Life of A.J. Fikry*

Over the past decade, the internet and the relatively unimpeded growth of players like Amazon have pressured bookstores across the country to adjust their approach to bookselling. Recent statistics from the American Bookseller Association show that print sales increased by $10 million to $1.02 billion in 2015.[1] This national trend will hopefully bode well for a Houston industry.

Presently, the state of the Houston bookstore industry, while not exactly thriving, is as diverse as the population, catering to the needs of many cultures. Salvaging the history of early bookstores in Houston offers an interesting way to understand how culture, entertainment, and information proliferated in the city's younger days through its transition to a megalopolis.

History of E. H. Cushing

Scouring across old *Houston City Directory* archives reveals few details on bookstores. However, one watershed moment came with the arrival of Edward Hopkins Cushing, father of Texas A&M founder E. B. Cushing and one of Houston's early boosters. Cushing was born June 11, 1829, in Vermont and showed an early interest in learning and books. At sixteen years old he entered Dartmouth College and graduated in 1850. Shortly afterward he moved to Houston to begin a teaching career. Six years later he became editor of the *Houston Telegraph* and remained there for thirteen years. By 1866 Cushing's early love for books prompted him to open his own bookstore, and he became one of the city's first established booksellers. With the help of the *Houston Telegraph*, Cushing supplied schools with a series of Texas readers and spelling books; he later added bookbinding and bookselling to his services.

Cushing was a steadfast booster of Houston with a wide-range of interests: Southern manufacturing, railroads, education, Texas authors, horticulture, and scientific agriculture. He promoted and published books from an array of Texas authors, such as Mollie Evelyn Moore Davis, Maud

Early Houston booster and bookstore owner Edwards Hopkins Cushing and his wife Mary Burke Cushing.
Photos courtesy of Ann Becker.

Jeannie Young, and John Sayles. Also a passionate horticulturalist, Cushing had the country's best floral collection at his estate, Bohemia.[2]

Houston Booksellers in the Twentieth Century

In the 1920s Mexican Americans also opened bookstores in the Mexican business district in downtown around Congress Avenue, among furniture stores, cafes, drugstores, barbershops, photography studios, and professional offices. *La Librería Hispano Americana*, owned by brothers José and Socorro Sarabia, sold a variety of items such as curios and printing services, along with literary works, magazines, and Spanish-language newspapers. The business district declined during the Depression, however; and by the mid-1950s the growing Mexican American population began moving to outlying areas, taking businesses with them.[3]

José (left) and his brother Socorro Sarabia owned and operated Hispano Americana bookstore at 1811 Congress Street in the Hispanic business district downtown.
Photo courtesy of the Houston Metropolitan Research Center, Houston Public Library, MSS0282-047-001.

African American business registries such as the *Red Book of Houston* do not specifically mention black-owned bookstores, but it is likely books were made available through other merchants who carried a variety of items, mail order services, or traveling salesmen like Lorenzo Greene who came to Houston to sell history books in 1930. Greene commented in detail on the thriving African American business communities in Third, Fourth, and Fifth Wards, calling the people he met "the most enterprising and most appreciative groups of race people in the South."[4]

A wealth of information on white-owned Houston booksellers in the twentieth century can be found in Larry McMurtry's *Books: A Memoir*. McMurtry, later a Pulitzer Prize winner, recalls his time in Houston as a rare book scout out of Stanford. Teaching night school at the University of Houston in 1958, McMurtry bussed across Houston's Fifth Ward daily and observed, "Fortunately, for a time all three of Houston's main secondhand bookstores were downtown, reachable without even changing buses."[5] He later opened his own bookstore, Bookman, in 1971.

Advertisements for printing and music shops in the nineteenth century declared they stocked books at prices below their Galveston competitors. This twentieth century advertisement demonstrates that booksellers specialized in and sold other goods as well.
Photo of *Houston City Directory* courtesy of Johnny Zapata.

McMurtry anointed Houstonian Herbert Fletcher as "Dean of Houston Booksellers." As a bookseller and publisher, Fletcher owned one of the three main secondhand bookstores in downtown Houston. Fletcher moved to Texas in 1925 and married San Antonio bookseller Thelma Rawls. After moving to Houston, Fletcher established Fletcher's Book Store on the corner of San Jacinto and Rusk Streets. By 1929 he created the Anson Jones Press, which favored publishing books about Texas. The avant-garde magazine *The Gargoyle* published a column written by Fletcher entitled "In the Offing." He later contributed regularly to the *Dallas Times Herald*'s column "Bibliomania."[6]

By all accounts Fletcher was a colorful figure. Described as "irascible and peevish" by his friends, he boasted in a 1950 *Southwestern Historical Quarterly* article that he had sold two million books, more than half at ten cents each. When he could not find a buyer for a prized Texas books collection, he said it was because "oilmen (of Houston) are not interested in anything that will not give them at least a hundred thousand dollar tax deduction." After volume one of a two-volume historical set was stolen from his store, Fletcher placed a newspaper ad requesting the thief return to steal the other.[7] Following Fletcher's death in 1968, his wife took over the business, now located in Salado, Texas.[8]

Another Houston bookstore mainstay of the 1950s was Brown Book Shop. Brown still operates today and is an

example of how independent bookstores shifted their focus towards a target market to stay profitable. In the late 1940s the original owner, Ted Brown, capitalized on the oil and petrochemical companies that inhabited the Houston Ship Channel by selling expensive, in-demand technical tomes. The store, originally built on Fannin Street, focused on art, cooking, and rare and expensive classics. At the time, technical books made up only ten percent of Brown sales. Brown, according to McMurtry, did not entirely shirk the antiquarian book market and, by the mid-1950s, "always kept a wall of fancy books, first editions, bindings, and press books for his rich customers from River Oaks and the Memorial district, where Ted himself lived."[9]

Brown Book Shop, established in 1946, advertises it is "the only brick-and-mortar technical bookstore in America. Trade books for engineers, welders, pipe fitters, electricians — standards and codes — technical manuals and more" can be found there.
Photo courtesy of Brown Book Shop.

J. W. Petty Jr. owned and operated the third Houston bookstore, The Book Mart, which stayed in business from 1936 until Petty moved to Victoria, Texas, in 1956. Sigmund Byrd of the *Houston Chronicle* lamented the loss, describing Petty's bookstore as a "rendezvous for book-lovers—both readers and writers—for so many years." Tom Mulvaney, book reviewer for the *Chronicle*, reiterated, "Houston will be different with Joe Petty's Book Mart gone. The old hangout of the intelligentsia has become a virtual landmark over on Capitol near the Post Office. It was always a nice place where one could drop in and meet stimulating people...and then there was always the master of the house to do battle with."[10]

In 1975 Houston's rare book trade was dismally characterized by Texas librarian John Payne in a *Texas Monthly* article intended to garner regional support for book dealers. Payne described Houston's love for book collecting as lackluster and dormant but mentioned several profitable Houston bookstores that existed during the sixties and seventies: Frank Gilliam's Brick Row Bookshop and Dorman David's Texas Bookman. At the height of the Depression and within a year of the original owner's death, Gilliam purchased Brick Row from a group of Yale men and moved back to his home state of Texas. The Houston branch of Brick Row closed in 1971, moving to San Francisco where it operates under new ownership as one of the oldest antiquarian bookstores.[11]

C. Dorman David's short, yet eclectic history as a Houston bookseller began in the sixties after he received trust money from his father, Henry David. Dorman completed a short apprenticeship with a renowned, affluent West Coast bookdealer, Warren Howell, and then returned to Houston where he designed a magnificent bookstore. McMurtry recalls, "The main room was a great cube, with shelves going way up to the ceiling. There was a humidor room, in which Dorman planned to sell rare tobaccos. For a safe he had the boll of a Louisiana gum tree: striking, and also fireproof. The house was on San Felipe, not far from the de Menils and other grandees."[12] Dorman's business acumen proved to be erratic. Threatened with bankruptcy, he fled to Mexico and Texas Bookman went up for auction. Grace David, Dorman's mother, along with the help of the Yount family of Beaumont, came to the bookstore's aide in their own way. Grace, not having much interest other than to help her desperate son, immediately hired Larry McMurtry to help organize a massive donation made by the Yount family from their personal library.

For book collectors enthusiastic enough, but ill-equipped with the real estate, they can turn to an aptly titled network called "The Book Hunters Club." Started by Kurt Zimmerman, The Book Hunter's Club is a group of rare book collectors, sellers, and librarians who reside in the Houston area.[13]

Effect of E-books and Online Sales

By 2005 e-commerce caused independent bookstores to rethink their strategy. The internet gave book buyers instant access to millions of books, driving down the price of used books. Amazon's Kindle, launched in 2007 offering a wide inventory of digital books, created another significant impact on bookstores. Surprisingly, despite gloomy publishing

Becker's invites writers to read and sign recent or past works. Former notable guests of the store include Senator Kay Bailey Hutchison, shown here with Dan Becker, Nellie Connally, Marvin Zindler, Connie Lapallo, Leon Hale, Winston Churchill's great grandson Jonathan Sandys, and H. R. Cullen's granddaughter Alison Baumann. Photo courtesy of Ann Becker.

industry predictions, the e-books never became the nadir of print that booksellers initially feared would drive bookstores out of business.[14]

By 2007, Amazon had already established a profitable business model selling books online, while attracting millions of tech-savvy book buyers. The focus of discussion in the book industry was how this new, aggressively marketed concept would affect brick-and-mortar stores. As Amazon's authority grew, book prices plummeted and the marketplace shifted to equate lower values to books. With some reservations, Houston's own Becker's Books began to use the internet as a viable, alternative revenue source. At first selling only rare, fine arts, and history books, Ann and Dan Becker eventually moved on to sell much more of everything, as most of the stores that successfully kept their doors open had done.[15]

Bookstores across the country started to feel the repercussions of the digital age. Brazos Bookstore owner Karl Killian took on program director duties at the Menil Collection in 2006, leaving the store's future in doubt. Luckily, a group of thirteen Houstonians, led by Edward R. Allen III, purchased the store and saved it from the growing list of defunct bookstores. By early 2015 the list of owners had grown to twenty-seven.[16]

In 2011, the closure of several corporate stores in the Houston area appeared to forecast more financial doom for the Houston book industry. With the help of an increase in demand for children and young adult books, sales rebounded, giving smaller bookstores an edge with the ability to cater to their customers, while providing an intimate shopping experience.

Becker's Books

To learn more about these changes taking place in Houston book business, I spoke with the owners of Becker's Books, one of the most unassuming bookstores in the Houston area. The store is located at 7405 Westview Drive, a nostalgic throwback to an older age of Houston booksellers, one of the few independent bookstores left in Houston that has adapted to the post-Amazon era. Dan Becker is a writer and historian who attended the Honors College and the Law School at the University of Houston. Dan is president of the Harris County Historical Society and vice president of the La Porte Bay Area Heritage Society. Ann Becker is a graduate of the University of New Mexico. She and I first met at the 2015 Houston History Conference where Ann had a booth displaying portions of her store's Texana book collection. She congenially chatted with new and familiar customers alike, one of the more pleasurable aspects of running your own bookstore. The author of several books on Houston history, Ann is a member of many local historical organizations including the Harris County Historical Commission, vice president of the Harris County Historical Society, and treasurer of the La Porte Bay Area Heritage Society.[17]

The Beckers' descriptions of the Houston independent bookstore scene mimic that of the rest of the country: Sparse, steadily thriving on an underground network of enthusiasts and book scouting regulars. Becker's Books falls under a unique model of bookstores that still stock used

Located in west Houston, Becker's offers book enthusiasts a selection from any genre they might desire in a warm and cozy atmosphere. Photo courtesy of Becker's Books.

books—antiquarian, out-of-print, and the odd and interesting items that make old book shops fun to browse. Kaboom Books, another successful bookstore, moved to the Houston area after being displaced by Hurricane Katrina. Colleen's, a beloved bookshop like Becker's, was located near Hobby Airport from the 1950s to the 1990s. Award-winning *Houston Chronicle* journalist Leon Hale wrote frequently about visiting Colleen's.[18] After talking with several independent Houston bookstore owners and attending several book fairs, I realized the community felt more like a knowledgeable network of people who love books.

The Beckers began selling books in 1988 and, seeking a more stable selling environment, bought a house and turned it into a gorgeous bookstore. "Amazon, in a way, has become all of our bosses," Ann says. She discusses Amazon's meteoric rise and how the state of survival of independent bookstores is intertwined with its success. The Beckers refuse to call themselves business savvy, but no other word describes how in 1992, based on the advice of fellow Galveston bookstore owners, they decided to go against their gut feelings and begin selling on the internet. Twenty years later the idea sounds almost draconian, but the boost from selling online has kept many local vendors from going under. Certainly Becker's Books is in no danger of closing any time soon. Dan and Ann hope that the keen interest and involvement of son Charlie, who recently published a book on River Oaks and helps run the University of Houston's SURE™ Program, will ensure the store's continuation with a new generation of Houstonians

The future of independent bookselling is unclear, but its historical ties are carried on today by a steadfast group more than willing to share their past. Houstonians can help keep independent booksellers around for future generations by following a time-honored tradition of choosing to shop for books through local vendors, whether online or in person.

Aric Richardson received his BA in English and education with a minor in history at the University of Houston.

Attention to Detail: The Architecture of Lucian T. Hood, Jr.

By Stephen James

Philip G. Willard and Lucian T. Hood, Jr., 4511 North Roseneath, Houston (1953). Hood is credited with designing this modernist house in the Riverside Terrace neighborhood while he was an associate in Philip Willard's office. The current owners have installed privacy screening that hides the spiral staircase in the glassed area to the left of the entry. Photo courtesy of the author.

The University of Houston architecture program was in its infancy in 1952 when it graduated only a handful of students.[1] Yet two of them—Kenneth E. Bentsen, FAIA (1926-2013) and Lucian T. Hood, Jr. (1916-2001) —went on to have extremely successful careers. Bentsen worked exclusively for commercial and institutional clients and produced award-winning buildings for banks, hospitals, and universities. His best-known project was the Summit (1975), a professional basketball arena for the city of Houston.[2]

Hood, however, focused mainly on residential architecture. At his peak in the 1980s, he had one of the most successful residential design practices of any Houston architect. Although he did most of his work in Houston, clients came from other cities in Texas and neighboring states. After he retired, others continued his work, offering Lucian Hood designs to those who associated his name with fine design and high quality.

His career spanned the modernism of the 1950s to the conservatism of the 1980s. His modernist buildings showed his intuitive command of both composition and principles of line, texture, and contrast, but the high quality of his work was most apparent in his traditional-style architecture, which he brought to life through rigorous attention to detail. He never developed a signature "Lucian Hood style," nor would his clients have wanted it. His houses were always tasteful, always restrained, and always distinctive.

Hood was born in 1916 in the small town of Talpa, Texas, but grew up in Fort Worth. His father worked in sales for Armour & Co. and was able to provide a comfortable life for his family.[3] Young Lucian showed artistic talent very early and his parents saw that he took art lessons as a child. His interest in art and architecture continued in high school and influenced his decision to pursue a professional career.[4] He attended the University of Texas from 1935 to 1937 but left without obtaining a degree. He returned to Fort Worth where he worked as a draftsman with architect Robert P. Woltz, Jr. from 1937 to 1942.[5] When the United States entered World War II, Hood joined the U.S. Army Air Corps, was commissioned a lieutenant, and served as an instructor on B-25 bombers at Brooks Field in San Antonio. At the end of the war he married Mary Edna Allen; son Lucian III joined them the following year.[6] Hood returned to Woltz's office briefly from 1945 to 1946 but late in 1946 moved to Houston where he enrolled in the architecture program at the University of Houston.[7]

Hood went to work immediately with architect Philip G. Willard, who had recently opened an office in Houston after practicing in Fort Worth.[8] While in that city, Willard had associated with Robert Woltz on a number of architectural projects in the late 1930s at the same time that Hood worked as a draftsman in Woltz's office.[9] Therefore, it is likely that Hood and Willard knew each other from their days in Fort Worth, and it would explain why Hood began working for Willard so quickly after he arrived in Houston.

Willard had a busy practice and did architectural design and real estate development while promoting an innova-

tive all-masonry construction system for small houses.[10] He hired some of the best students from the UH program to help him, including Lucian Hood and Lars Bang (1921-2008). They assumed considerable responsibility and handled much of the design duties while Willard devoted time to his other business activities. Hood worked as a designer and associate architect with Willard until 1953.[11] Willard's office was prolific but is best remembered for a number of distinctive modernist houses in the Riverside Terrace neighborhood, many of which Hood and Bang designed.[12] Among Hood's best from this early period is the house at 4511 North Roseneath, whose rustic stone exterior belies its extremely modern styling. Its massing is asymmetrical but well-balanced and grounded by its strong horizontal lines. The focal point is the two-story glass wall near the front entry, which reveals a spiral staircase visible from the street.

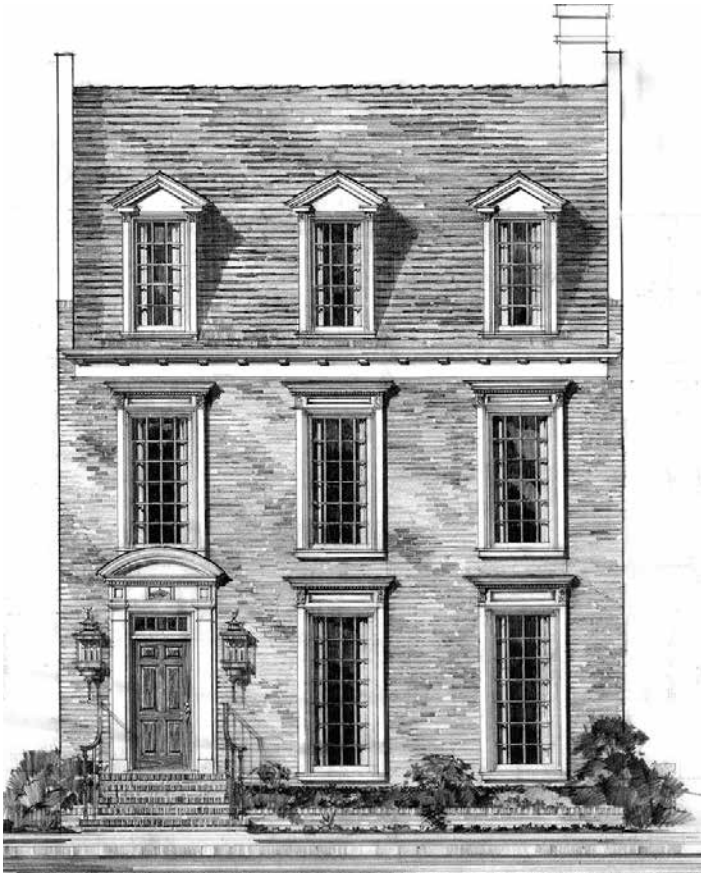
Hood earned his architecture degree in 1952 but probably learned more from his on-the-job training with Willard. His many years of experience in the Woltz and Willard offices set him apart from other recent graduates, and in the 1953-1954 school year Hood returned to his alma mater to serve as a visiting critic and design instructor.[13]

By 1953 Hood left Willard to start his own practice but within a year joined with Lars Bang to work on two office buildings, the Times Building at 2444 Times Blvd. (1955) and the Century Building at 2120 Travis (1956).[14] Although Hood and Bang often receive joint credit for both buildings, it appears that Hood was primarily responsible for the Century Building.[15] The partnership did not last beyond these projects, and by 1955 Hood had returned to working on his own.[16] Press reports of the time show that he had a varied practice, designing apartment projects large and small, single-family residences, and small professional offices.[17]

In the 1960s Hood, assisted by a few draftsmen, ran a small architecture practice that designed houses for individuals and homebuilders, as well as apartment projects for investment builders. A highlight of this period was the Memorial Creole Apartments (1968) at 10220 Memorial Drive, which featured Louisiana French Creole architecture. An outstanding design, it showed the hallmarks that would define Hood's later career: traditional-style architecture with authentic, often historically accurate, exterior elevations and great attention to detail. A half century later, the Memorial Creole is still well maintained by the Finger Companies, the original owner, which markets it to those seeking luxury apartments in the wooded Memorial neighborhood. If its amenities and picturesque setting were not persuasive enough, its website announces that it was designed "by renowned architect, Lucian Hood."[18]

In the 1970s Hood continued to design small office and retail projects for commercial clients, but residences—single-family detached, townhouses, and apartments—dominated his practice. The volume of work was high for a small architectural office, apparently a result of his growing reputation.[19] He had designed large, expensive houses since the beginning of his career, but during the 1970s these became a much larger part of his practice. He was a favorite architect for several home builders who produced small numbers of high-end custom homes in the city's most

Lucian T. Hood, Jr., Memorial Creole Apartments, 10220 Memorial Drive, Houston (1968).
Photo courtesy of the Finger Companies, Memorial Creole Apartments.



Lucian T. Hood, Jr., 7632 Del Monte, Houston (1973). This Neo-Classical townhouse was one of many that Hood designed for the area south of Woodway Drive near Tanglewood. It is difficult to reproduce the fine detail, but the superb architectural rendering showcases his talents as an artist.

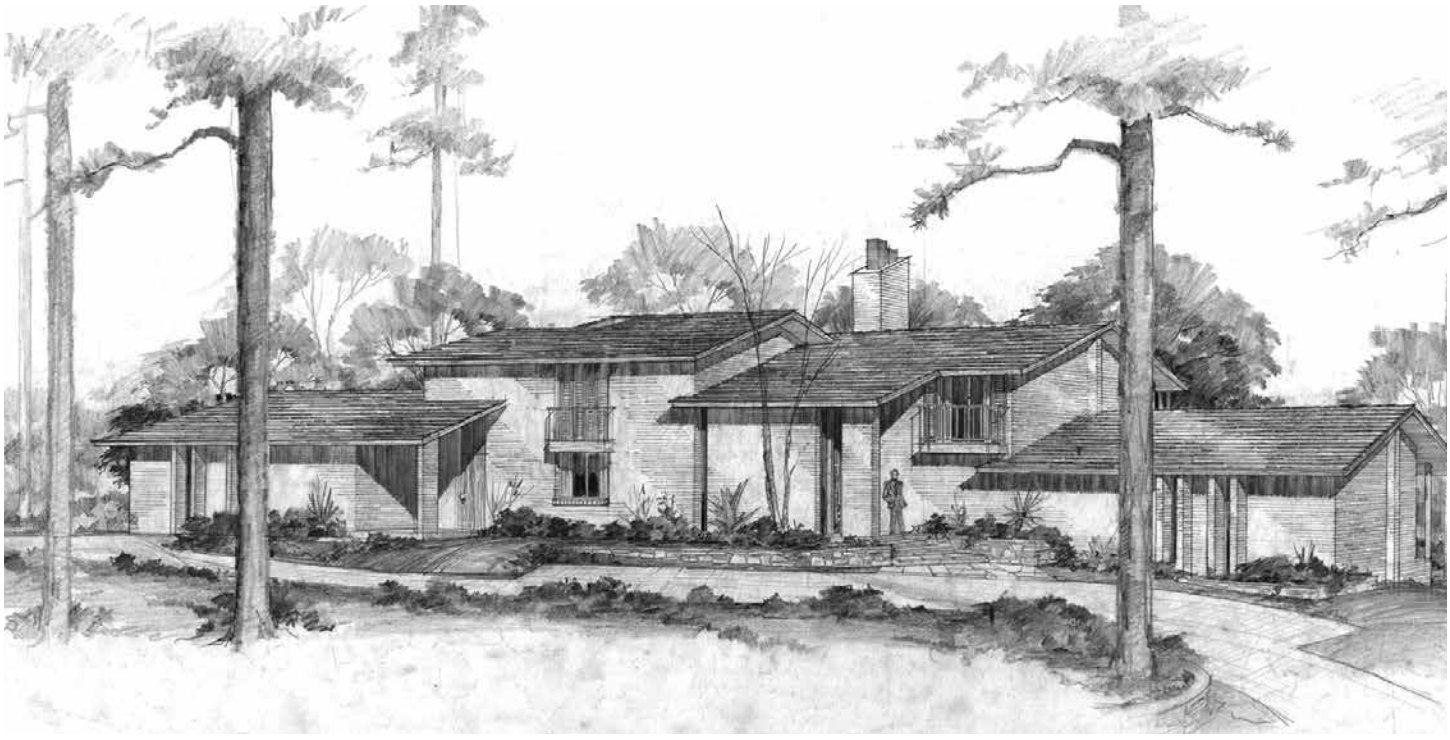
All architectural drawings courtesy of the Lucian T. Hood Architectural Papers, Special Collections, University of Houston Libraries.

exclusive neighborhoods.[20] His designs fill the blocks of the desirable northern edge of Tanglewood, between Woodway Drive and Buffalo Bayou. Others are found in River Oaks and the Memorial Villages where he created opulent mansions for Houston's rich and famous.

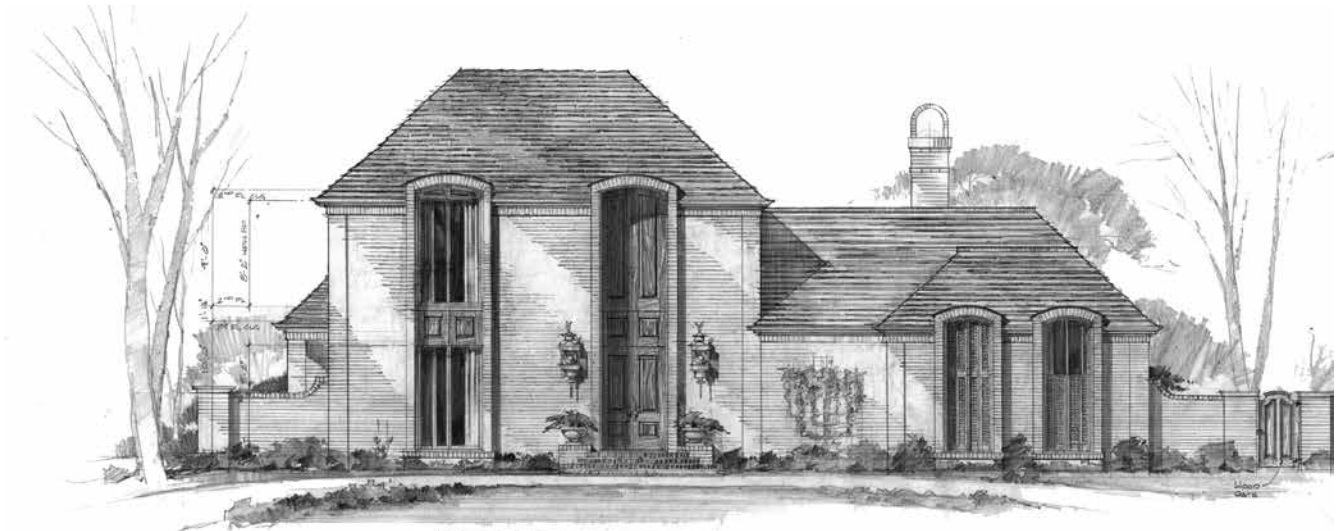
In the 1980s, a time of economic recession in Texas, Hood began to design smaller houses for mass-market builders. These houses were more modest than his usual products, but they incorporated the same tall rooflines and period detailing used on his larger houses. He instilled a sense of elegance and dignity not often found in houses for the middle class. By the end of the decade, as the economy improved, he returned to more expensive houses, but large home building companies remained important clients.

Hood seemed equally comfortable designing in both modern and traditional styles. With the current interest in mid-century modern architecture, he is often celebrated for his modernist buildings of the 1950s. Yet, even in that decade—the peak of popularity for modernist residential architecture—he designed many houses in traditional styles.[21] In the 1970s his "Transitional" designs blended the two aesthetics. They were formally abstract but elegant, with pronounced, hooded door and window openings crowned by shallow segmental arches. His traditional-style residences ranged from eclectic to historically accurate. For the former, he showed creativity and skill in assembling the elements of a traditional style in a way that was new but consistent with convention. When the Reagan era of the 1980s ushered in a vogue for red-brick Georgian Revival style houses, Hood distinguished his designs by stressing authenticity in their detailing.

The attention to detail required by traditional architecture came easily to Hood, probably because of his talent as an artist. Many years of sketching had taught him to look



Lucian T. Hood, Jr., 302 Fall River Court, Houston (1976). This sprawling ranch-style house in the Memorial neighborhood for Marvy Finger was an increasingly rare contemporary design in a decade when Hood's clients were beginning to demand more traditional styles.



Lucian T. Hood, Jr., 713 Tanglewood Blvd., Houston (1976). Hood's French-influenced "Transitional" style houses blended modern and traditional aesthetics. They were formally abstract but elegant with their pronounced, hooded door and window openings crowned by shallow segmental arches. The over-scaled lanterns were a Hood favorite.

closely at the details in a scene, and it probably gave him an appreciation for the picturesque qualities inherent in traditional architecture. We see this in his working drawings prepared for construction. They are remarkable not only for their meticulous drafting but also for the fine architectural renderings that became Hood's trademark. In most of them, he took the time to render the standard front elevation view of the building in pencil with shade and shadow. The best are works of art; he gave each a three-dimensional quality with his deft use of the pencil lead to approximate the texture of brick walls and wood shingles, the grain in a piece of wood, and the highlights in a pane of glass.

By the time Hood retired in 1992, he was so well known that builder William Carl bought Hood's practice and for a decade and a half offered variations of Hood's many designs under the name Lucian Hood, Inc. In 2007 Carl closed the office and donated all of the drawings and records to the University of Houston Libraries.[22] With over 900 projects, Hood's is the largest of the library's architectural collections. It also has proved to be the most popular, receiving frequent reproduction requests from patrons who own a house designed by Lucian Hood. As large as it is, the collection is not complete, missing many projects from the early years that apparently were lost or destroyed.[23] Drawings for some of Hood's projects have been scanned for the Digital Library (http://digital.lib.uh.edu/collection/hood), which makes important holdings of the UH Libraries accessible online. In 2013, the library also acquired the drawings and papers of Hood's classmate, Kenneth Bentsen, as a way to preserve the legacy of the small but talented class of 1952.

Stephen James is Curator, Architecture & Planning Collections, University of Houston Libraries, Special Collections Department, and holds a Ph.D. in Architectural History from the University of Virginia. He is grateful for the assistance of Lucian Hood III and Ben Hill in the preparation of this article.

Lucian T. Hood, Jr., 4307 Churchill Downs Drive, Austin (1983). Hood interpreted Texas regionalist precedents for this Hill-Country commission but executed the house in a buff-colored brick rather than native limestone. The design was specific to its site and departed from the Georgian Revival and French Country styles that characterized most of Hood's houses in the Houston area during the 1980s.

The Houston History Bus, *Bringing the Past Alive*

Mister McKinney recently fulfilled one of his dreams when he rolled out the Houston History Bus. "The Houston History Bus is a truly unique and immersive experience," R. W. McKinney explains. "We acquired a retired school bus and reconfigured it into a mobile classroom. We cut the roof off, removed the windows, and installed a flat screen TV. We created a mobile educational resource that we're leveraging to provide free city tours to school children, as well as paid tours to the public. They'll be able to explore the communities they live in, and watch their neighborhoods come alive with history as we show them archival photos and artwork, comparing them to modern cityscapes and architecture. We'll show them where Santa Ana marched through the East End, and where the original fire station used to be in The Heights."

R. W. McKinney is a leading cultural contributor to Houston and heavily involved with and on the board of many local organizations, including Miller Outdoor Theatre, the Harris County Historical Society, and the Bellaire Historical Society, where he is president. Recently chosen as District I historian by Council Member Robert Gallegos, McKinney is the resident historian for KHOU Channel 11's *Great Day Houston* hosted by Deborah Duncan.

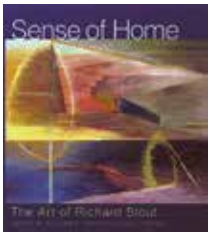
You can learn more about the free tours for school groups on the Houston History Bus by following "Mister McKinney's Historic Houston" on Facebook or emailing mistermckinney@gmail.com.

Photos courtesy of Mister McKinney.

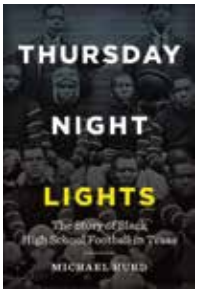
HOUSTON HAPPENINGS *by Adriana Castro*

BOOKS

Richard E Wainerdi and the Texas Medical Center by William Henry Kellar (Texas A&M University Press, $35). In 2012, after almost three decades, Richard E. Wainerdi retired as president and chief executive officer of the Texas Medical Center, where he led its transition to the world's largest medical complex. Kellar traces Wainerdi's life story from a bookish childhood in the Bronx to his move to study petroleum engineering at the University of Oklahoma and earn master's and doctoral degrees from Penn State in nuclear engineering. By the late 1950s, Texas A&M University recruited Wainerdi to found the Nuclear Science Center, where he also served as professor and later associate vice president for academic affairs. In 1984, he embarked on his "second career" in charge of the Texas Medical Center, taking it from thirty-one institutions to fifty-three and tripling its size. Wainerdi also developed a new nonprofit administrative model that emphasized building consensus, providing support services, and connecting member institutions with resources that enabled them to focus on their areas of expertise. Wainerdi's success was to enable each member of the Texas Medical Center to be an integral part of something bigger and something very special in modern medicine. Kellar is the author of fifteen books including *Enduring Legacy: The M.D. Anderson Foundation and the Texas Medical Center* and *The Birth of the Texas Medical Center: A Personal Account*.



Sense of Home: The Art of Richard Stout edited by William E. Reaves and Linda J. Reaves (Texas A&M University Press, $35). Born in Beaumont in 1934, Stout began his work in Houston as a painter, sculptor, and teacher in 1957. Becoming one of the state's most significant contemporary artists, Stout developed a committed national and international following among artists and collectors who appreciated his distinctive artwork. This is the first retrospective study of Stout's career, which covered a formative period in Texas art. The book includes a critical assessment of Stout's evolving style and approach, illustrations of paintings and sculptures spanning his career, and a comprehensive biography of his life.



Thursday Night Lights by Michael Hurd (University of Texas Press, $24.95). Hurd covers fifty years of African American high school football history in Texas from 1920 to 1970, including championship seasons and noted rivalries such as the annual Turkey Day Classic between Jack Yates and Phillis Wheatley High Schools in Houston, which drew as many as 40,000 spectators. Hurd also discusses the Prairie View Interscholastic League, the African American counterpart to the University Interscholastic League, tracing its development, the reasons behind its creation, and how football provided a source of pride in the black community and gave student athletes a chance to succeed athletically and academically in a racist society.

Thank you!

The *Houston History* team would like to thank Erika Thompson, Danielle Burns Wilson, and the staff at the African American Library at the Gregory School for hosting the launch party for our spring issue, "Agency: The Quest for Civil Rights." One of three special collections archives in the Houston Public Library system, the library and the building's restoration were featured in the magazine. Attendees included Coach Bill Yeoman, Dr. Guadalupe Quintanilla, and Minnette Boesel, who were also featured in articles; and Kathleen Ownby, representing her mother Eleanor Tinsley. Guests thoroughly enjoyed touring the building and the exhibits. We sincerely appreciate the Gregory School's hospitality and all of you who attended to recognize these important Houston civil rights icons!

Former University of Houston football coach Bill Yeoman and Erika Thompson, community liaison at the African American Library at the Gregory School, show their Cougar spirit at the spring launch party. Photo courtesy of Nancy V. Clark.

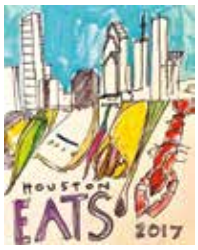
To read more about the Turkey Day game, see "The Turkey Day Classic, Houston's Biggest Football Rivalry" in *Houston History* Vol. 14, No. 1 on our website, and Dr. Thurman W. Robins's book *Requiem for a Classic*.

NEWS

The Texas General Land Office Save Texas History Program has released a limited-edition map, *Texas and the Great War*, sponsored by the Veterans Land Board. The map, in commemoration of America's entry into World War I, features over seventy people and places in Texas that made significant contributions during World War I. Exploring the map reveals information about the Battleship Texas, the world's most powerful weapon at the time, and the Camp Logan Mutiny in Houston. Visit www.savetexashistory.org.

EVENTS

Through January 27, 2018: Houston has become known as a food mecca, but its roots/routes are drawn directly from its diverse communities. ***Food & Family*** explores the supporting role each of these domains—food and family—play in enhancing the significance of the other. After all, family is the elemental unit of human social life and food is the essential component of not just its survival but its capacity to thrive. The Heritage Society, 1100 Bagby, www.heritagesociety.org.



February 2-3, 2018: The rescheduled **Houston Eats-Texas Gulf Coast Food in the Past, Present, and Future Conference** will be held at the University of Houston. The event is free. Visit the Facebook page @HoustonEatsConference to register.

April 14, 2018: **The San Jacinto Symposium** will be held at Studio Movie Grill in the CityCentre complex in West Houston. The 2018 symposium theme is "The Texas Revolution in Film." Dr. Jim Crisp will moderate the conference, which will feature historians and filmmakers, including speakers Frank Thompson, Steve Harrigan, Paul Andrew Hutton, and Tom Copeland; along with panelists Steve Hardin, Alan Huffines, and Michael Corenblith. Visit TSHAonline.org/sanjacintosymposium or call (512) 471-3111.

ENDNOTES

THE 1947 TEXAS CITY DISASTER

1 Ron Stone, *Disaster at Texas City* (Fredericksburg: Shearer Publishing, 1987), 2.
2 Stone, 2-3; Donald Robinson, *The Face of Disaster* (Washington D.C.: Library of Congress, 1959), 125.
3 Allen Pevoto, *Heroes and Survivors* (Austin: Groundbreaking Press, 2008), 13.
4 Stone, 9, 6; Robinson, 125; Hugh Stephens, *The Texas City Disaster 1947* (Austin: University of Texas Press, 1997), 2, 3.
5 Stone, 10, 4.
6 Robinson, 126.
7 Stephens, 2; Clifford Reed Sr., interview by author, October 26, 2015, UH-Oral History of Houston, Houston History Archives, Special Collections, University of Houston Libraries.
8 Stephens, 3; Fred W. Linton, *True American* (San Rafael: Branco Publishing company, 2009), 7; Stone, 17; Linda Scher, *The Texas City Disaster* (New York: Bearport Publishing, 2007), 15.
9 Scher, 17.
10 Robinson, 127, 128; Stone, 28.
11 Stone, 19, 18, 110; Robinson, 127.
12 Stephens, 47; Stone, 18; Linton, 22.
13 Robinson 129; Stephens, 46.
14 Reed interview.
15 Stephens, 49, 52.
16 Stephens, 50; Reed interview.
17 Stephens, 50, 56; Robinson, 155; Linton, 56.
18 Stephens, 55, 50; Scher, 2; Frank Urbanic, *We Were Prepared* (Friendswood, TX: AFMC Press, 2015), 48-49.
19 Scher, 18-19.
20 Stone, 81.
21 Urbanic, 64, 91-92, 97, 138.
22 Reed interview.
23 Stephens, 47; Pevoto, 5.
24 Pevoto, 144, 69, 47.
25 Linton, 50-51; Stone, 67, 90.
26 Pevoto, 131-132.
27 Linton, 63.
28 Stone, 90; Pevoto, 45; Linton, 43.
29 "Texas City Disaster Memorial," Galveston County: *The Daily News*, April 12, 2017; "Raw Video 70th Anniversary Texas City Disaster Memorial," I45 Now, April 12, 2017, www.facebook.com/i45now/, www.youtube.com/watch?v=PCwWO3Ta0Go.

HABITAT FOR HUMANITY

1 Allan Turner, "Paid in Full: Matriarch of a large family becomes first Houston resident to pay off the mortgage of her Habitat for Humanity House, A Personal Milestone Habitat: City, county pay tribute," *Houston Chronicle*, June 25, 2009.
2 Alexis Grant, "Habitat for Humanity - Houston's first house built by the nonprofit has given one woman the means to bring up two generations - Home gives family a solid foundation," *Houston Chronicle*, December 24, 2006: 1.
3 "The History of Habitat," Habitat for Humanity, www.habitat.org/how/historytext.aspx; Paul Leonard, *Music of a Thousand Hammers: Inside Habitat for Humanity* (Continuum, 2006), Summary excerpt.
4 "Habitat. We Build.," video file, *Habitat World Magazine*, March 2014, www.habitat.org/magazine/article/habitat-we-build.
5 David Rubel, *If I Had a Hammer: Building Homes and Hope with Habitat for Humanity* (Massachusetts: Candlewick Press, 2009), 4-5.
6 "Carter Work Project: President and Mrs. Carter's build with Habitat," Habitat for Humanity, www.habitat.org/volunteer/build-events/carter-work-project; "Habitat's History," Habitat for Humanity, http://www.habitat.org/about/history.
7 Rubel, *If I Had a Hammer*.
8 Stephen Sye, interview with author, October 12, 2016, UH – Oral History, Houston History Archives, Special Collections, University of Houston Libraries; John Rigg, "Houston Habitat for Humanity Founder Umland Dead at 83," *Houston Chronicle*, March 3, 2013.
9 "Habitat's History"; "Houston Habitat for Humanity," Charity Navigator Community Development: Housing and Neighborhood Development, www.charitynavigator.org/index.cfm?bay=search.summary&orgid=9177.
10 Sye interview.
11 Sye interview.
12 Ben Parker (Houston Habitat for Humanity build staff member) in discussion with the author, October 29, 2016.
13 Leslie Eaton and Stephanie Strom, "Volunteer Lags in Replacing Gulf Houses," *The New York Times*, February 22, 2007, www.nytimes.com/2007/02/22/us/22habitat.html.
14 Eaton and Strom, "Volunteer Lags."
15 Eaton and Strom, "Volunteer Lags"; Mara Der Hovanesian, Greg Hafkin and Christopher Palmeri, "Habitat for Hustlers," *Bloomberg Businessweek* on NBC News, November 10, 2006, www.nbcnews.com/id/15654489/ns/business-us_business/t/habitat-hustlers/#.WEeBLbQobwx.
16 "Campus Chapters," Habitat for Humanity, www.habitat.org/volunteer/near-you/youth-programs/campus-chapters.
17 "Rice Habitat for Humanity Centennial House Project," Rice University Habitat for Humanity, http://habitat.rice.edu/rch.
18 Sye interview.

CRANE COLLAPSE

1 "Houston Refinery," LyondellBasell, www.lyondellbasell.com/en/houston-refinery/.
2 U.S. Department of Labor: Occupational Safety and Health Administration (OSHA), "Investigation of the July 18, 2008 Fatal Collapse of a Deep South Crane at LyondellBasell Houston Refinery in Pasadena, TX," www.osha.gov/doc/engineering/2009_01_13.html, 1; Martin Bernal, interview with author, October 2015, UH-Oral History of Houston, Houston History Archives, Special Collections, University of Houston Libraries.
3 James C. McKinley, Jr., "4 Killed as Huge Crane Topples at a Houston Refinery," *The New York Times*, July 19, 2008, www.nytimes.com/2008/07/19/us/19crane.html?_r=0; OSHA, "Investigation of the July 18, 2008 Fatal Collapse,"1 "Four Killed in Crane Collapse," ABC 13 Eyewitness News, KTRK-TV, July 19, 2008.
4 Dane Schiller, Lindsay Wise, and Rosanna Ruiz, "Workers killed in crane collapse at Houston refinery identified," *Houston Chronicle*, July 19, 2008.
5 Dane Schiller, "Report: Operator untrained when Houston crane flipped," *Houston Chronicle*, January 16, 2009.
6 OSHA, "Investigation of the July 18, 2008 Fatal Collapse," 1-2.
7 "Investigation of the July 18, 2008 Fatal Collapse," 2.
8 Bernal interview.
9 Bernal interview.
10 "Investigation of the July 18, 2008 Fatal Collapse," 2; Schiller, Wise, and Ruiz, "Workers killed in crane collapse."
11 Dane Schiller, "Survivor: Crane Collapse 'scariest thing I'd ever seen'," *Houston Chronicle*, July 19, 2008.
12 Anthony Dutrow, "Crane falls in Houston killing four workers," *The Militant*, July 28, 2008, www.themilitant.com/2008/7230/723002.html.
13 "Crane topples in Kingwood; no injuries reported," *Houston Chronicle*, July 21, 2008.
14 Dane Schiller, "OSHA fines company for fatal Houston crane accident," *Houston Chronicle*, January 16, 2009.
15 Bernal interview.
16 "Health, Safety, Environment and Security," LyondellBasell, www.lyondellbasell.com/en/sustainability/health-safety-security.
17 Dutrow, "Crane falls in Houston."

NINA VANCE AND THE ALLEY THEATRE

1 Ben Koush, "The Grain Silo Plopped Atop the Alley," *Houston Chronicle*, December 17, 2014; Lisa Gray, "Alley Theatre addition drawing fire for 'grain storage' like design," *Houston Chronicle*, December 18, 2014.
2 George C. Izenour, Vern Oliver Knudsen, and Robert B. Newman, *Theater Design* (New York: McGraw-Hill, 1977).
3 William Beeson, *Thresholds: the Story of Nina Vance's Alley Theatre: Inaugural Season, 1968-69* (Houston: Alley Theatre, 1968).
4 Ibid.
5 Beeson, *Thresholds*; Hugo V. Neuhaus and Ben Koush, Hugo V. Neuhaus, Jr.; *Residential Architecture*, 1948-1966 (Houston: Houston MOD, 2007); Stephen Fox, "Neuhaus, Hugo Victor, Jr.," *Handbook of Texas Online*, www.tshaonline.org/handbook/online/articles/fne43.
6 Peter Blake, Ulrich Franzen, George Weissman, and Massimo Vignelli, *The Architecture of Ulrich Franzen: selected works* (Basel: BirkhÄuser, 1999); Stanley Abercrombie, *Ulrich Franzen: Architecture in Transition, 1956-1978* (Tokyo: Process Architecture Pub. Co, 1979); Beeson, *Thresholds*.
7 Nina Vance, "Notes by Nina Vance for the New Alley Theatre," from correspondence, November 1963 and January 1964.
8 Ibid.
9 Nina Vance, *Nina Vance Alley Theatre Papers, 1923*; Vance, "Notes by Nina Vance for the New Alley Theatre."
10 "Zelda Fichandler," *Theatre Communications Group*, 2001, www.tcg.org/publications/at/2001/zelda.cfm; "Arena for a Resident Company," *Progressive Architecture*, 43, 1962: 132.
11 "Mummer's Theatre, Oklahoma City, Okla," *Architectural Record* 35J, 1968; Pastier, "Something else altogether in Oklahoma City: John Johansen's Mummers Theater," *AIA Journal* 70(9), 1981: 40-46; Vance, "Notes by Nina Vance for the New Alley Theatre"; "Mack Scism, Director at Theater of the Deaf," *The New York Times*, November 6, 1986.
12 Vance, *Nina Vance Alley Theatre Papers*; Vance, "Notes by Nina Vance for the New Alley Theatre."
13 Ibid.
14 Ibid.
15 Ibid.
16 Ibid; George C. Izenour, Vern Oliver Knudsen, and Robert B. Newman *Theater Design* (New York: McGraw-Hill, 1977).

THE EVOLUTION OF HOUSTON BOOKSTORES

1 "Industry Statistics," American Booksellers Association, www.bookweb.org/btw-topics/industry-statistics.
2 Donald E. Reynolds, "Cushing, Edwards Hopkins," *Handbook of Texas Online*, Texas State Historical Association, https://tshaonline.org/handbook/online/articles/fcu34.
3 Arnoldo De Léon, *Ethnicity in the Sunbelt: Mexican Americans in Houston* (College Station, TX: Texas A&M Press, 2001), 34-35; Thomas H. Kreneck, *Del Pueblo: A History of Houston's Hispanic Community* (College Station, TX: Texas A&M Press, 2012), 29, 63.
4 Bernadette Pruitt, *The Other Great Migration: The Movement of Rural African Americans to Houston, 1900-1941* (College Station: Texas A&M Press, 2013), Chapter 6; Tyina L. Steptoe, *Houston Bound: Culture and Color in a Jim Crow City* (Oakland: University of California Press, 2016), 30-31, 54-55; *Red Book of Houston: A Compendium of Social, Professional, Educational and Industrial Interests of Houston's Colored Population* (Houston: SoTx Pub., 1915) http://digital.houstonlibrary.org/cdm/ref/collection/books/id/182.
5 Larry McMurtry, *Books: A Memoir* (New York: Simon and Schuster, 2009).
6 John Payne, "So Rare," *Texas Monthly*, May 1975, 43-47, www.texasmonthly.com/issue/may-1975/; Tyler Herrick Fletcher, "Fletcher, Herbert Herrick," *Handbook of Texas Online*, Texas State Historical Association, https://tshaonline.org/handbook/online/articles/ffl42.
7 Donald C. Dickinson, *Dictionary of American Antiquarian Booksellers* (Westport, Connecticut: Greenwood Press, 1998), 67.
8 Payne, "So Rare."
9 McMurtry, *Books*, 42.
10 "Book Mart Adds New Touch For City's Culture Minded," *Victoria Advocate*, November 11, 1956. See also Sigman Byrd, *Sig Byrd's Houston* (New York: Viking Press, 1955).
11 "About Us," Brick Row, www.brickrow.com.
12 McMurtry, *Books*, 73.
13 See The Book Hunters Club Facebook, www.facebook.com/bookhuntersclub/.
14 Josh Hrala, "See How Amazon's Kindle Evolved over Time," *Popular Science*, April 13, 2016, www.popsci.com/evolution-kindle; Dan and Ann Becker, interview with author, October 2015, for *Houston History*.
15 Becker interview.
16 "Our Story," Brazos Bookstore, www.brazosbookstore.com/about.
17 Houston History Alliance, Ann Becker Profile, http://www.houstonhistoryalliance.org/events-2/2015-houston-history-conference/speakers/ann-becker.
18 Becker interview.

THE ARCHITECTURE OF LUCIAN T. HOOD, JR.

Please see expanded notes on our website, www.houstonhistorymagazine.org.

1 Vernita Bridges Hoyt, ed., *Flashbacks: Images from the First Fifty Years of the College of Architecture, University of Houston, 1945-1995* (Houston: The Atrium Press, 1995), 11.
2 Stephen Fox, "Kenneth E. Bentsen, FAIA (1926–2013)," *Texas Architect* 64, no. 1 (1/ 2 2014): 19. Kenneth Bentsen Associates were lead designers of the Summit, in association with the architectural firm of Lloyd, Jones, Brewer & Associates.
3 *American Architects Directory*, 1st ed., "Lucian T. Hood, Jr." (New York: Bowker, 1956), 255; *American Architects Directory*, 2d ed., "Lucian T. Hood, Jr." (New York: Bowker, 1962), 323 (Birth date and place) (hereafter, *Architects Directories*, Hood). 1930 United States Census and 1940 United States Census, Precinct 1, Tarrant County, Texas, s.v. "Lucian T. Hood, Sr." *Ancestry.com* (Father's address and occupation).
4 Lucian Hood III, email messages to the author, July 8, 2017, August 25, 2017.
5 *Architects Directories,* Hood.
6 Lucian Hood III, email messages to the author, July 8, 2017, August 23, 2017.
7 *Architects Directories,* Hood.
8 *Architects Directories,* Hood.
9 Judith Singer Cohen, *Cowtown Moderne* (College Station: Texas A&M Univ. Press, 1988), 25, 99 (Willard and Woltz in Fort Worth).
10 "This All Ceramic Home," *Houston Chronicle*, August 20, 1950, sec. C, p. 9. Willard's real estate development activities are described on the same page of the newspaper. See also "All-Ceramic Home," *Houston Chronicle*, May 18, 1952, sec. C, p. 12. Ben Koush, "East End Modern," *Cite* 69 (2006): 28-29.
11 *Architects Directories*, Hood.
12 See Stephen Fox, "Riverside Terrace and Environs: An Architectural Tour," *Cite* 19 (1987), 21-22. Willard and Hood's Riverside houses include 4511 North Roseneath Drive (1952) and 3403 North Parkwood Drive (1953). Stephen Fox, *Houston Architectural Guide* (Houston: American Institute of Architects/Houston Chapter and Herring Press, 1990), 157. 3403 North Parkwood, for client Sammy Finger, was one of Willard's "ceramic homes" and in contemporary reports was credited to Philip G. Willard and Lucian T. Hood. "In MacGregor Area," *Houston Chronicle*, August 10, 1952, sec. F, p. 4. The Parkwood house is published in Alan Hess, *Ranch House* (New York: Harry N. Abrams, 2004), 124-127, where it is also credited to Hood. Nevertheless, according to Russell Howard, a former president of the Houston Mod organization who interviewed Lars Bang, Bang said that the house was his design, not Hood's. "3912 Roseneath in Riverside Terrace," post by member "Space Age" (Howard) March 21, 2007, http://www.houstonarchitecture.com/haif/topic/10281-3912-roseneath-in-riverside-terrace/?tab=comments#comment-155542. The Hess book also features a later Hood design at 5330 Mandell Street (1959). Hess, *Ranch House*, 208-211.
13 *Architects Directories,* Hood.
14 "Three-Story Times Bldg. Nears Finish," *Houston Chronicle*, March 27, 1955, Sec. C, p. 6. A month earlier, newspaper reports had announced that construction was about to begin on the Century Building, with Lucian T. Hood as architect. "New Office Building for Travis," *Houston Chronicle*, Feb. 13, 1955, Sec. E, p. 9. Hood was responsible for the first phase of the Century Building, a 7-story office building just south of Houston's downtown business district. The owner later enlarged the building to 12 stories and added an adjoining 14-story building.
15 Hood's son believes that the partnership with Bang had ended by the time work began on the Century Building, or shortly thereafter. Lucian Hood III, email message to the author, July 8, 2017. This is supported by contemporary accounts. See "New Office Building for Travis," *Houston Chronicle*, Feb. 13, 1955, Sec. E, p. 9.
16 *Architects Directories,* Hood.
17 "Canfield Plaza to Have 18 Buildings, 160 Units," *Houston Chronicle*, Nov. 13, 1955, Sec. F, p. 4.
18 Memorial Creole Apartments, http://www.memorialcreole.com/.
19 By the 1970s Hood's office was handling at least sixty projects per year and continued to do so through the 1980s. However, in any given year many of the projects were never completed, often because the client chose not to proceed.
20 Hood did more work for the Barnett Brothers than any other high-end builder, and their work is plentiful in the Tanglewood neighborhood. Hood also designed apartment projects for the Finger companies and homes for members of the Finger family.
21 Among these was a "Southern Colonial Mansion," complete with servant's quarters. "Southern Colonial Mansion 'in Tanglewood,'" *Houston Chronicle*, Sept. 25, 1955, Sec. D, p. 7.
22 Members of the Houston Mod organization were instrumental in arranging this effort to save the records of Hood's practice.
23 Lucian Hood III recalls that in the mid-1960s, while his father was moving his office, he stored many of his architectural drawings in the garage of his house. Flooding caused by heavy rains entered the garage and damaged the drawings. Hood chose to throw them out. Lucian Hood III, email messages to the author, February 9, 2017, July 8, 2017.

0073043943
University of Houston
Center for Public History
3623 Cullen Blvd., Room 320
Houston, TX 77204-3007

NONPROFIT
ORGANIZATION
U.S. POSTAGE
PAID
Houston, TX
PERMIT NO. 5910

RETURN SERVICE REQUESTED