

Early Aerial Photography of New Orleans

By Richard Campanella
Tulane School of Architecture

Left: Early-1920s nadir-view aerial photograph of the Fairgrounds area of New Orleans' Seventh Ward. Note the bank of Bayou St. John at extreme left edge, near St. Louis #3 Cemetery; Florida Avenue (now I-610 corridor) at top; Gentilly Boulevard curving across center through DeSaix Circle; and North Broad and St. Bernard Avenue intersecting at right. Note also the last of the long-lot truck farms and dairies near the Fairgrounds Race Track, which had dominated land use along the Gentilly Ridge since colonial times. Special thanks to Keli Rylance for finding this image in the Weiss, Dreyfous and Seiferth Office Records, Southeastern Architectural Archive, Special Collections Division, Tulane University Libraries.

WITH A COMPELLING BUILT ENVIRONMENT straddling the sinuous Mississippi and surrounded by complex marshes and bays, New Orleans begs to be viewed from above. For the first century of its existence, however, the human eye could rise no higher than the tallest structure to gain a remote perspective. Ballooning, which became all the rage in the early 1800s, afforded loftier perches, but only for the "aeronaut" aboard. One such adventurer, a "Mr. Robinson," thrilled New Orleanians in 1827 with a balloon flight that started from the French Quarter levee, rose "into the regions of the upper air," and crash-landed waist-deep in the mud of Madame Coriocourt's Gentilly Road plantation eight miles away. A newspaper described the day's events as "wonderful, glorious and sublime beyond expression," as surely were the vistas enjoyed by Mr. Robinson.

By the 1830s-1840s, structures such as the 185-foot-high St. Charles Hotel and 140-foot St. Patrick's Church afforded artists a perch from which they could observe and sketch accurate bird's eye views of the cityscape below. Early daguerreotypists and photographers, such as Jules Lion, Jay Dearborn Edwards and Theodore Lilienthal, followed in their stead in the 1840-1860s, using upper floors and rooftops as stable platforms for their bulky equipment. This was also the era in which the first genuine aerial photographs were captured: downtown Boston was photographed from a balloon in 1860, as had been Paris a few years earlier, although no such image was ever made of New Orleans in this era. Additionally, kites, messenger pigeons and tethered balloons were used as early remote sensing platforms in the late 1800s and early 1900s. During the heyday of aviation experimentation in the 1910s, individuals lugged cameras aboard aircraft and snapped photographs of the cityscape on either side of the cockpit. Local archives retain a handful of these magnificent "oblique" views of New Orleans, including a particularly valuable one of Storyville taken around 1914.

While oblique aerial photographs produce spectacular perspectives, they are not particularly useful for the purposes of mapping. If cartography is the goal, the camera must be pointed straight down — in a "nadir" (base) view — and held as steady as possible. Military uses of nadir aerial photography during the World War in Europe led to the refinement of wide-format lens, shutter speeds, specialized film with fiducial marks and custom-made mounts on the airborne platform. On the ground, photogrammetric engineers developed tools such as stereo plotters to view overlapping frames in 3-D, remove distortion, and turn the photographs into geometrically accurate cartographic products.

After the war, the Fairchild Aerial Camera Corporation discovered there were lucrative civilian applications in photography-based mapping. These were the early days of city planning and zoning, and with automobiles and new arteries expanding metropolitan footprints nationwide,

urban planners and real estate developers eagerly consumed this new, fast, and incredibly informative type of spatial information. In 1921, Fairchild successfully photographed all of Manhattan Island, producing a first-ever detailed mosaic of the largest American city, and extended its business elsewhere.

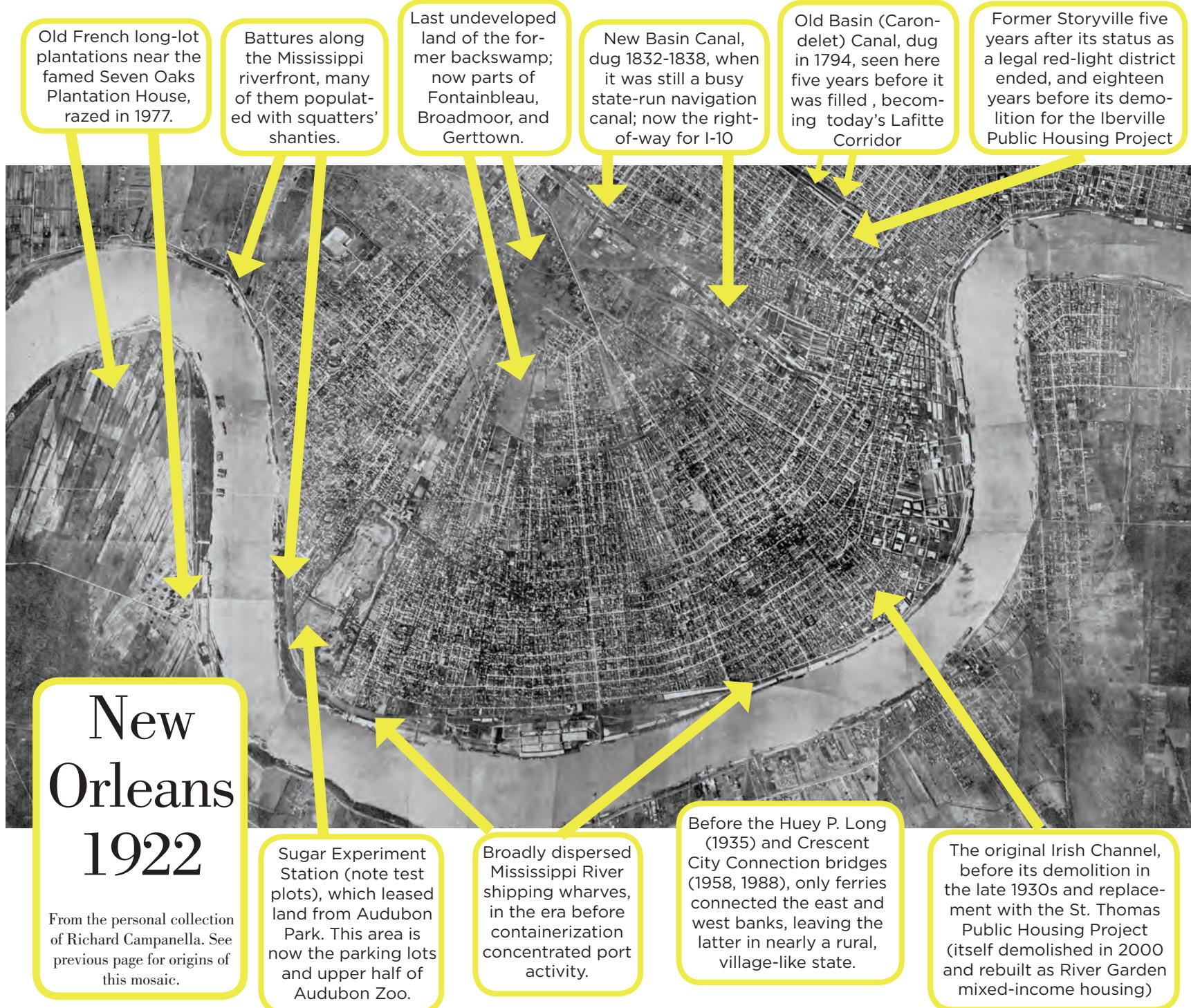
A number of years ago, I acquired a copy of rare aerial photo mosaic of New Orleans from an obscure Port of New Orleans document dating from the 1920s. It accompanies this article, along with interpretive information. The mosaic's origin was unclear, but it appears to date from around the time of the Fairchild project in Manhattan; it's certainly the earliest comprehensive nadir-view photographic coverage of New Orleans I have ever seen. I've since scanned and geo-referenced it for comparison to later photographs and satellite images, and have published it in two of my geography books. But I have not been able to ascertain who produced it and for what reason.

Conversations with my colleague Keli Rylance of Tulane University's Southeastern Architectural Archive, in the Special Collections Division of Tulane University Libraries, have since shed more light on this unique portrait of New Orleans. Keli discovered in the archive's vast collections a few individual frames from the same era, and found news articles from the early 1920s on early aerial missions.

The mosaic, it appears, was not a Fairchild project but rather an idea hatched in 1920 by the city planning committee of the Association of Commerce, which had learned of the power of civilian aerial photography from its counterparts in other cities and wanted a similar dataset for New Orleans. The Association found a willing partner in the U.S. Navy, which had developed a seaplane with a specialized mount and was eager to exercise its new equipment.

Photographing New Orleans, however, proved frustrating, indeed nearly disastrous. The first attempt, in 1920, was thwarted by unsuitable weather: the mission required that all skies over the city be clear below an 8,000-foot ceiling, literally a tall order for this region. The second mission, in 1921, never quite photographed the city because it first flew down to map the mouth of the Mississippi River — only to run out of gas, forcing the pilot to land in the Gulf of Mexico. He and the photographer were finally found, alive but suffering from exposure, two days later. The third mission completely failed to get off the ground, as a storm in Lake Pontchartrain tore the seaplane "from its moorings off the Southern Yacht Club [and] ground [it] to bits against the sea wall."

The fourth attempt proved the charm, and in 1922, under perfect weather conditions, one Ensign Keene piloted a plane that, with the help of chief photographer Daniel W. Culp and a flight crew, had been rigged with "an automatic camera operated by a wind motor from the streamline

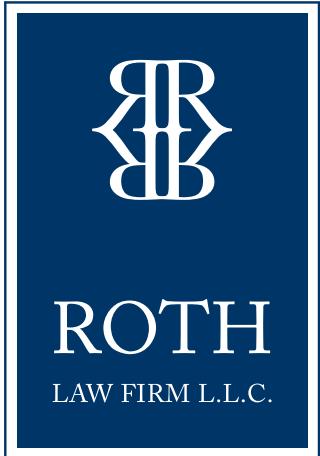


of the propeller, at the rate of one every third-five seconds, with a 50 percent overlap in each [frame]. These photographs measure 7 by 9 inches.” It appears that the film was developed at the Pensacola naval base and mosaicked — that is, strategically subsetted within the overlap regions and pasted together like a puzzle — to form a first-ever photographic map of the City of New Orleans. In all likelihood, this is the origin of the copy reproduced on the adjoining page.

Later in the 1920s, commercial interests routinely sent up aircraft to photograph, either in oblique or nadir format, the subdivision development of present-day Gentilly and Lakeview. A circa-1920s nadir photograph of the area around the Fairgrounds and DeSaix Circle (above), which Keli Rylance found in her archive’s Weiss, Dreyfous and Seiferth Office Records, probably derives from a real estate development effort.

Nadir-view aerial photography effectively replaced field surveys for the making of maps within a decade of the New Orleans mosaic, and dominated cartography until the end of the century. Since then, digital sensors mounted on space-borne satellite platforms have largely replaced film-based airborne imagery. Today we have a wealth of spatial data about our region — you can view detailed satellite imagery of your house for free on the Internet — which adds all the more value to those first mapping-quality nadir-view photographs captured nearly a century ago.

Richard Campanella, a geographer with the Tulane School of Architecture, is the author of seven books, including *Bienville’s Dilemma*, *Geographies of New Orleans*, and the forthcoming *Bourbon Street: A History* from LSU Press. Campanella may be reached through <http://richcampanella.com> or rcampane@tulane.edu and followed on Twitter at @nolacampanella.



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