

SUBTERRANEAN TREASURES

BY J. BRIAN PHILLIPS

First-time visitors to Houston are often impressed by the city's modern skyline, the Johnson Space Center, and the Astrodome. But while visitors, and many Houstonians, are busy looking upward, one of the city's best-kept secrets lies right beneath their feet.

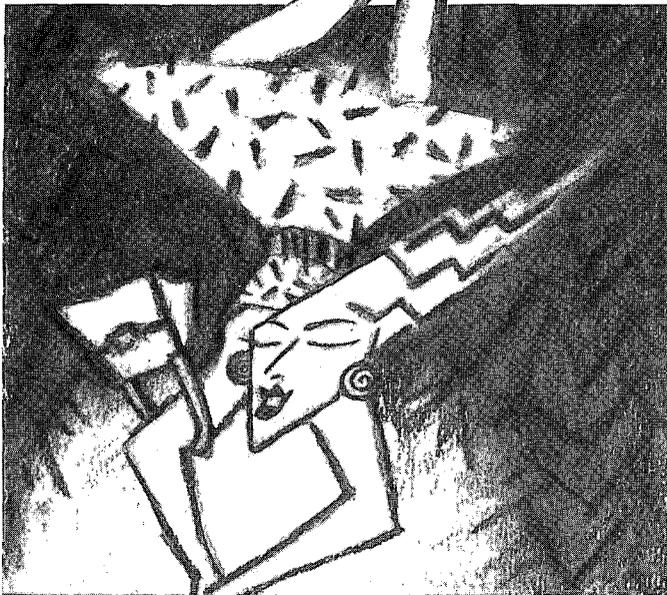
Running throughout the central business district, a series of air-conditioned tunnels and skywalks connects nearly 75 percent of the major buildings, allowing pedestrians to walk from one side of downtown to another without ever setting foot outdoors.

The city's first tunnel, built in 1931 to connect three downtown theaters, was inspired by a similar structure under Rockefeller Center in New York City. A penny arcade was installed in the tunnel, and for a short period it enjoyed success and fame. But the theaters closed and the tunnel eventually filled with debris. It was 1947 before another one was built, this time connecting a department store to its parking garage.

In 1951 the first tunnel linking two office buildings was constructed. During the 1960s and '70s, development accelerated both above and below ground as Houston grew into the nation's fourth-largest city. Until the mid-'70s, most of the tunnels connected adjacent buildings, or office buildings to parking garages. "Our employees and our tenants should be able to get to and from their cars without being soaked, blistered, or frozen," explained one banking official.

By the mid-'70s, two-and-a-half miles of tunnels snaked their way under Houston. Today The Connection, as the system has been dubbed, is over six miles long, and most of the tunnels have been interconnected.

The Connection is an impressive engineering achievement. Perhaps more interesting, though, it is an impressive economic achievement, defying the conven-



tional wisdom about "public goods." For the system has been almost entirely developed and maintained by the private sector.

Houston's ordinances give building owners control of their land to the middle of the road. The city is granted easement rights along the surface for utilities and streets, but what goes on below the surface is up to the property owner, as long as he moves any below-ground utilities when constructing a tunnel. This has proven to be one of the major costs involved, as there are thousands of miles of electric power cables, street light cables, gas lines, water pipes, and storm and sewer pipes running under city streets.

At a construction cost of over \$15,000 per square foot, a typical tunnel can easily reach a price tag of \$1 million. So it's not surprising that from its humble beginnings as a sterile walkway between parking garages and office buildings, The Connection has evolved into a major retail area. Nestled along the corridors are over 100 shops and businesses—florists, banks, travel agents, film developers, office supply stores, cleaners, printers, jewelers, delis, even postal facilities.

Until about five years ago, the possibility of getting lost in the system was

a big drawback. Responding to complaints about this, which was clearly discouraging use of the tunnels, a group of downtown merchants pooled money to develop a name and initiate the posting of signs. "The Connection" was born, and the ad hoc tunnel committee hoped peer pressure would get building owners to put up signs.

Standard notions about public goods suggest that such improvements pose a problem. Everyone benefits even if only a few people pay; the potential for such free riding means that common benefits won't be provided at all if some central authority doesn't impose a tax on everyone to pay for them.

Yet today, kiosks throughout the system, erected by individual businesses, point tunnel travelers in the right direction. And the fact is that those who are paying are also receiving most of the benefits. Nearly all of the buildings in the heart of the system—the most heavily traveled area—have invested in kiosks. Buildings in less frequently traveled areas have not, because the low traffic does not justify them. Some downtown businesses have printed maps as a service to their customers, but because these maps also provide advertising, those who are paying are again receiving the greatest benefits.

Building owners have alleviated another potential free-rider problem—with air conditioning—by installing doors between sections of the tunnel. These prevent some areas from benefiting from the air conditioning in others.

As the tunnel system has expanded, building owners have found that access to it is almost imperative. Louis Sklar, an executive at Gerald D. Hines Interests, the largest tunnel developer, maintains that "any building, to be viable in downtown Houston, has to be on the tunnel system." It is an amenity that prospective tenants find appealing, for it allows employees to avoid Houston's infa-

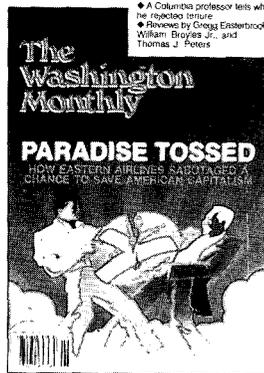
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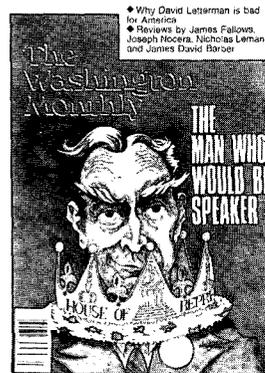
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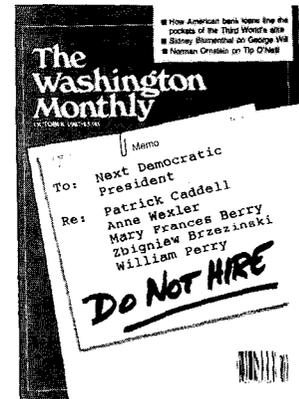
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HOUSTON

mous summer weather, as well as winter's brisk "blue northers," which send frigid Arctic air whistling through the city's concrete canyons. Of the downtown workforcè of about 175,000 people, 14,000 use the tunnel on an average week-day. On rainy days, another 4,000 scurry through the corridors.

Patrons also like the system's cleanliness. Because the tunnels are privately owned, building owners have an interest in maintaining a clean and safe environment. An abundance of ashtrays throughout the system, for example, keeps the floor clear of cigarette butts.

Building owners are responsible for security, and guards and security cameras are visible throughout the system. While crime is not unheard of in The Connection, the narrow corridors, limited access, and absence of dark alleys are obvious deterrents. And the lower crime rate has reduced insurance costs for many tunnel businesses.

Panhandlers and other street people seldom enter the tunnels. When they do, "we call the police," said one security guard. And since access at night is very limited, the homeless do not find it a convenient shelter.

Hotel managers like the tunnels' security. Their guests can attend an evening performance at one of the city's performing arts centers and return to their hotel without walking along the vacant streets late at night.

Retailers rave about The Connection's benefits, among them the built-in upscale clientele. "If I had to pick any location in Houston," says camera store owner Jim Strawbridge, "I would probably pick this one." Self-proclaimed "tunnel rat" Paul Couch, an assistant manager at a flower shop, claims that he can make deliveries to 98 percent of the buildings without going outside.

Yet The Connection is not without its critics. The same retailers who laud the tunnels' benefits bemoan their inability to do any street-level advertising. A surprising number of downtown workers are not even aware of the tunnels' existence.

Some tunnel business owners have gone so far as to declare the tunnel a public asset, like sidewalks, and suggest increased city control. Sklar, the executive at Gerald D. Hines, claims that "some sort of public authority" to main-

tain the system "would certainly not be all bad." Public ownership, he says, would ensure access to the system (the recently constructed Heritage Plaza was denied access by a competing development company) and would foster a more uniform motif throughout the system.

Others have urged construction of street-level entrances—there is currently only one. Some believe that the lack of access from the street demonstrates shortsightedness that city control could remedy.

Such critics, however, should ponder the fate of a series of tunnels already operated by the city of Houston. Connecting several theaters and parking lots, it was tied into the commercial system several years ago. While most of the private tunnels have carpeted walls and mirrored ceilings, the city's tunnels are entirely tiled. They're also in need of repair and poorly lit; some people have gone so far as to call the city's tunnels "slums." Sklar admits that "if you look at the way they are built and maintained compared to the private systems, you can have some feel for why a lot of people prefer the private tunnels."

As building owners have slowly become more responsive to retailers' desire to increase traffic through the tunnels, calls for public control are decreasing. More building owners are erecting directories in their lobbies and making a greater effort to advertise the tunnel to pedestrians.

While The Connection is not without flaws, it probably would not exist if not for the private sector, where it has evolved gradually. Building the system all at once would have been an engineering and financial nightmare. "Putting in tunnels yourself could be a lot cheaper than trying to coordinate it through some government agency," observes University of Houston economist Steven Craig.

Even Sklar concedes that "the system probably never would have been started if it had not been privately owned." The problems of financing and regulating would have been difficult to overcome, and public support for such a project impossible to obtain.

Thirty years ago, observes Hines, The Connection's benefits would have seemed like a futuristic fantasy. □

J. Brian Phillips is a Houston-based free-lance writer.

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Rediscovering Michelangelo

By John Gillis



The Sistine Chapel in transition: For the first time since 1512, the ceiling is something the artist would recognize as his own.

It is a walk, a long walk, through long and then twisting marble corridors. After the last few steps you arrive through a tiny door at the Sistine Chapel, a historic chapel adjacent to St. Peter's Church in Rome, at the center of the old Christian empire. It is a grand space about one third the dimensions of a football field, with a high vaulted ceiling that makes it seem larger. Arriving at that small entry door, at least during the next six years, you see scaffolding covering a small portion of the ceiling.

You enter a world that has been partly hidden for three and a half centuries: the history of mankind as described in the Old Testament, transformed by Michelangelo into powerful, universal imagery. Because of an ongoing restoration, that ceiling—for the first time since 1512, when Michelangelo was 37—is something the artist would recognize as his own.

How you react to the ceiling (regardless of its state of restoration), whether you love it or not, is up to you—but there is no avoiding its impact. You need no knowledge of the biblical stories portrayed

to appreciate the work. As in any great work, it succeeds with a lightning immediacy and makes palpable certain human emotions and qualities and experiences. There is nothing else quite like this ceiling in the world—in drama, in visual virtuosity, in audacity, in size. Michelangelo did it in four years, alone on a scaffold. It was four years of terribly hard physical labor married to a mental and emotional conception that made all the hardship worth it. A word, much debased in 1980s America, comes to mind: awesome.

If you have seen the ceiling before, the new scene will be a shock. You realize you have never really seen Michelangelo's ceiling—this is so fresh and richly colored and three-dimensional. This shock has come to many, including many art experts. And it has engendered controversy. The chief restorer, Prof. Gianluigi Colalucci, has had to defend the project against both worthy and unworthy critics. The cleaning is a wonderful revelation, or an unpleasant jolt, depending on how dearly you hold to a previous idea of how Michelangelo's ceiling "should" look.

This ceiling's long history in shadow has created the current reaction—a true culture shock—upon finding that Michelangelo's work has been gravely misunderstood since shortly after he completed it. While the forms, colors, and expressed feelings were, more or less, always visible (though muted), the "new" colors are radical to many.

Apparently within a few years after the ceiling was completed, it lost much of its vibrancy to smoke, dust, and animal fats applied to protect or temporarily brighten the work. Thus, almost all the later accounts of the magnificence of the ceiling speak about the muted colors and soft tones. Whether Michelangelo was praised or chastised in a particular generation depended on whether that kind of coloration was popular. If people preferred bold, strong colors, Michelangelo was called a weak colorist, and vice versa.

The restorers are working on one portion of the ceiling or upper wall areas at a time. This small band of experts, under the direction of Colalucci, has been at it since 1980. They will spend about 12 years in the Sistine (with about six years on the ceiling itself)—three times as long as it took Michelangelo to complete the painting.

They started on areas that were less important or done by other artists. They spent four years in this early phase, researching the many layers of debris deposited on the ceiling and perfecting the appropriate techniques for cleaning and repair without affecting, now or later, these irreplaceable frescoes.

A fresco is a painting on plaster, but more exactly, *in* the plaster. When the plain plaster is put up, the painter applies water-based color pigments to the plaster with his brushes, and these colors mingle with the wet plaster, sink in, and become integral to it. A well-made fresco doesn't peel even after centuries (unlike housepaint, for example, which is only on the surface). While this art technique was common in Italy and other European countries for several centuries, it has been all but lost in the 20th century.