

3-D City Lies In Future, Dean Declares

What the city of the future might look like is a three-dimensional megalopolis—if rapid underground excavation can become a reality.

"It seems obvious that the efficiency, the health and the viability of the city would be enhanced enormously if we could make the city truly three-dimensional," proposed Dr. Earl F. Cook, acting dean of the College of Geosciences.

In reality—if perfected—rapid excavation would provide various underground levels of activity for such things as intercity trains, vehicular traffic, "pods" for intra-urban transportation and utilities.

Cook pointed out that rapid underground excavation not only has a potential for improving cities, but reconciling conservation with development.

HE NOTED that while population is exploding, cities are growing four times as fast as population.

"The modern city is essentially two-dimensional," Cook said. "All urban activities compete for use of the two-dimensional surface."

He described cities as becoming "congested to the point of stagnation and disintegration," and offered rapid excavation as a means to "revitalize cities by making them truly three-dimensional in the flow of people, goods and services."

Likewise, he said, the need for mineral and energy resources is growing twice as fast as population with conflicts between mineral exploitation and surface conservation becoming acute.

"MINERAL reserves are decreasing rapidly in richness and accessibility," he said. "Rapid underground excavation offers new alternatives for mineral development in harmony with surface conservation and promises significant extension of our mineral resources."

Cook said when it is considered that the vital flows of people, goods and services in a city take place essentially on a two-dimensional surface, "the modern city becomes a wonder—that it works at all!"

The geosciences professor believes rapid excavation offers a rare opportunity for the guided development of a technology to serve several human needs.

"Left to itself, rapid-excavation technology will develop slowly and haltingly, governed by the existing demand for end-use systems," he added.

Cook noted that 90 percent of the people will be living and working in 10 percent of the land area of the U. S. in the next few years.

"RAPID excavation promises great new flexibility to urban and regional planning," he said.

Development of continuous boring machines costing over \$1 million each—like gigantic drills with power units—are now able to eat through rocks much faster than the old method of drills and blasts, Cook pointed out.

There are problems, however. "We cannot predict the quality of rock to be discovered," said Cook, noting that the drills cannot adjust to fractures and changes in strength of rocks.



\$7,000 CHEAP

Podunk Center, Iowa, is up for sale for only \$7,000. Homer Weeks, who owns the village—consisting of a one building gas station, grocery store and cafe, plus a four unit motel—has moved to nearby Winterset. Mr. and Mrs. Jack Braman, above, pause in front of the booming sales complex. (AP Wirephoto)

Constable School Slates Discussion On Texas Driver Licensing Laws

Seventy-five justices of the peace and constables are expected here Monday to study changes and procedures in the law.

The justices, who date their position to the first magistrate appointed in 1327 in England, will take part in a three-day JP and Constable School.

The school is sponsored by the Engineering Extension Service's Police Training Division. Sessions will be held in the Memorial Student Center from 8 a.m. to 5:30 p.m., Monday and Tuesday, and until noon Wednesday.

Ira E. Scott, head of the Police Training Division, said the program is opened to all judges and officers interested in the subjects for presentation.

INCLUDED in this year's program will be a discussion of new laws on driver licensing and landlord-tenant relationships.

Scott added such cases are usu-

ally processed by the precinct justice court on a local basis.

Speakers include Jim Bundage, Texas Liquor Control Board; Norman Suarez, Texas Department of Public Safety; Judge Joe B. Brown Jr., Dallas, and Carol Vance, Harris County district attorney.

Transport Confab Open To Students

Faculty-staff members and students are invited to attend the 11th annual Transportation Conference without paying registration fees, announced Maj. Gen. John P. Doyle, MacDonald Chair professor of transportation.

The March 27-28 conference is sponsored by the U. S. Department of Transportation and the Texas Transportation Institute.

Theme for the 1969 conference is "Emergency Transportation Controls."

Sea Scientists Find Oil Off Mexican Coast

A&M oceanographers have found oil where extensive oil-bearing deposits were unsuspected—on the floor of the Gulf of Mexico.

Bottom cores from a location about 600 miles south of Houston and 400 miles west of Cape Catoche on the Yucatan Peninsula were drawn from the depths Saturday.

Examination by geological oceanographers aboard the research ship Alaminos revealed a tar-like substance. X-ray radiographs made on board showed it contains crude petroleum.

"No one was previously aware of such thick deposits in deep water," noted Dr. Richard A. Geyer, oceanography department head.

DRS. ARNOLD Bouma and Richard Rezak and oceanography doctoral student Frank B. Chmelik described Tuesday retrieval of the core.

"We were coring a knoll on the Campeche Gulf continental rise on Friday," related Bouma. "The core included a piece of material at first suspected to be charcoal."

Analysis proved otherwise and the Alaminos scientists continued pelagic sedimentation corings across the slope of the knoll, an underwater hill 1,530 feet high. The last core of the two-week Alaminos cruise produced the unusual find.

IT WAS TAKEN at the foot of the knoll, at 9,870 feet. The three-inch in diameter, 40-foot long coring device penetrated less than six feet into the bottom and was bent due to the hard texture of the oil tar. The 2,400-pound weighted pipe was dropped free from 10 feet above the bottom.

"It was extremely heavy on the pull-out," commented Bouma, who noted core pipes have been lost because hawsers would not stand the pull-out strain.

On ship, the scientists removed nearly eight inches of the tar, a 40-inch plug of calcareous sediment, another 12 inches of tar and, at the top, a two-inch sediment layer.

"Indications are that at least these tar layers, maybe more, are there very near the surface. The tar shield is so stiff it doesn't float up into the water as it normally would do," Rezak said.

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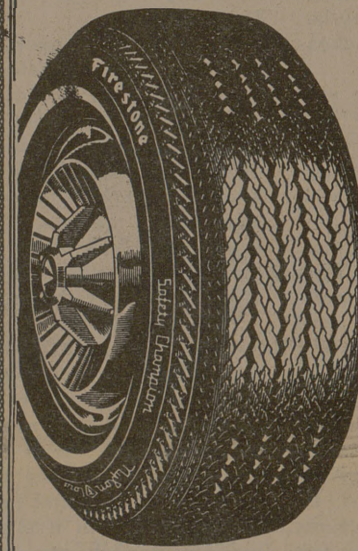
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