NEWS BULLETIN OF THE MOLES
AN ASSOCIATION OF MEN ENGAGED IN HEAVY CONSTRUCTION

HOLING THROUGH

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MARCH, 1962

GENERAL VIEW OF EARLY CONSTRUCTION of Verrazzano ("Narrows") Bridge across New York Harbor, looking from Staten Island across to Brooklyn.

It's Down-to-Earth Day for Students!

A full day of down-to-earth, on-the-scene, man-to-man and literally "hard-hatted" education in the construction business will be presented to about 120 selected college engineering students of the eastern area by The Moles on Friday, April 13.

This "big day" in and around New York City will be a high point in the longtime educational program that has been carried on by this association of leading figures in the heavy-construction industry for the past seven years.

It will be, in effect, a "showcase" in which college student engineers will be able to see and learn engineering opportunities in construction. Students are invited to participate in the field trips — to outstandingly interesting projects now under way in New York — to the extent their commitments will permit. Those who cannot take the field trips are invited for dinner and for the evening meeting.

The maximum number of students from any one college for the day program is 10; for the evening program, up to 20 per college.

In general outline, the day's program shapes up as follows:

10 a.m. to 5 p.m. — Field trips to current construction projects in the metropolitan area. (Luncheon to be served enroute.)

5 to 6:30 p.m. — A question-and-answer period based on observations during the field trips. At the new Engineering Societies Building, across the street from the United Nations, at 1st Avenue and 47th street.

6:30 to 7:30 — Dinner in the cafeteria of this building.

7:30 to 10:30 — A three-part meeting in the Auditorium of this same building: First, a typical construction project will be described from inception through all phases — including financing, design, contracts, construction, materials, equipment, insurance, safety, labor relations, public relations, and so forth — demonstrating the need for men with engineering background and training in each and every one of these aspects of the construction business. Then, a motion picture of an outstanding construction project: and, for a finale, another question-and-answer session.

Richard E. Mynatt of the firm of Merritt-Chapman & Scott is chairman of The Moles' Education Committee. Plans for this "opportunities in construction for engineers" day have been worked out

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The Line-up for Evening Session:

A primary theme of The Moles' "opportunities for engineers in construction" day is that there is need for, and there are opportunities for, young men with engineering background in a number of widely different aspects of the business.

This will be accented in the evening meeting by experienced and highly qualified men, each discussing a phase with which he is especially familiar. Scheduled to moderate this panel is Henry A. Letoile of the Perini Corporation. Others who have been invited and are expected to serve as speakers and panelists, barring some emergency development, include: Thomas J. Shanahan, president of Federated Bank & Trust Company; Ralph E. DeSimone; Robert J. Armstrong of Coakley & Booth; Gerard M. Gaussa of Johnson, Drake & Piper; George F. Ferris, board chairman of Raymond International; Gustave G. Werner of Merritt-Chapman & Scott, and John M. Kyle, chief engineer of the New York Port Authority.

In addition, it is hoped and expected that Major General W. E. Potter, executive vice president of the New York World's Fair 1964-65 Corporation, will be on hand for the panel discussion and the ensuing question-and-answer period.

COMING UP!

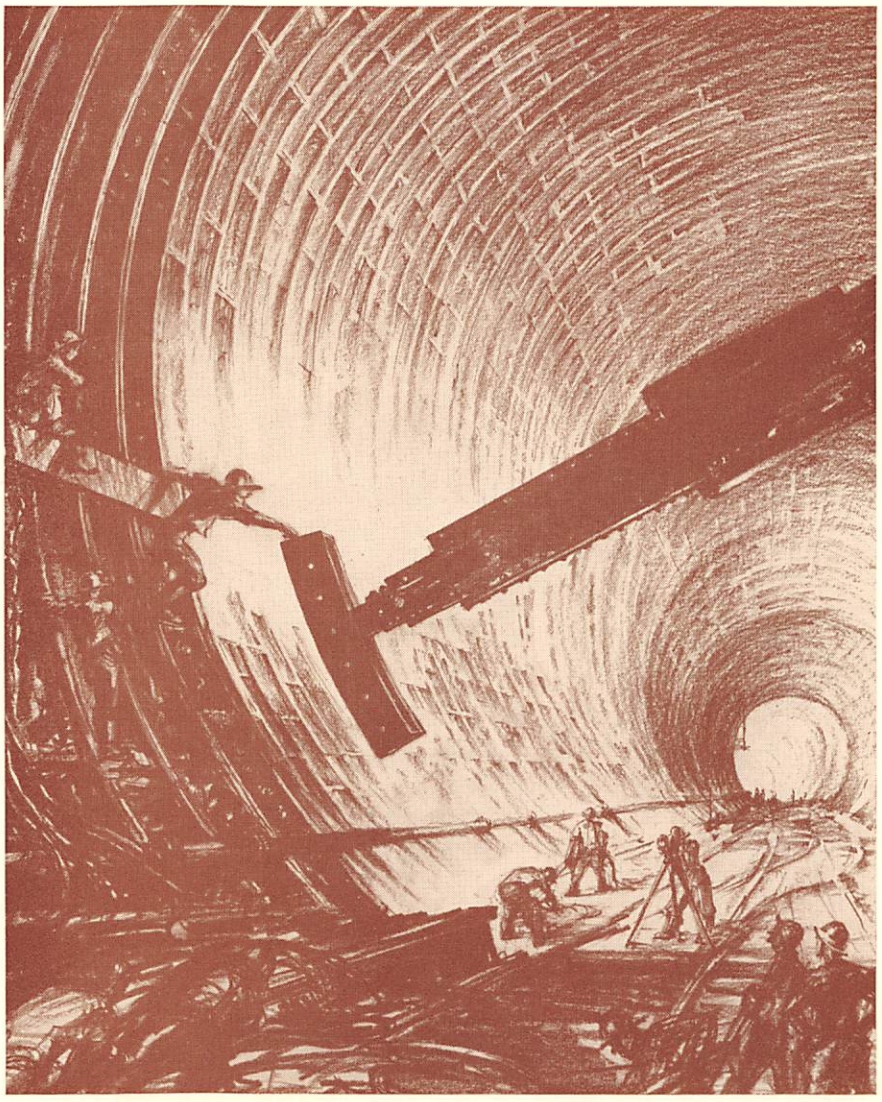
The New York World's Fair will be a glamorous city of some 200 buildings, costing $500 million, with 28 miles of paved streets and sidewalks, served by a power source of 80,000 kva and a water system of 35-mgd capacity.

It must be built and ready for occupancy in four years . . . . and disappear entirely in three months after it closes!

Robert Moses Said:

"Relatively few first-rate engineers practice engineering after they are forty. They become managers, executives, etc., and their slide rules, trigonometry and calculus are forgotten. The engineer who likes management becomes a business executive. The engineer who likes risks becomes a contractor. The engineer who is rigid, tough, unyielding, inflexible and no back-slapper or hail-fellow-well-met will never be a successful politician. Perhaps that is why there are so few engineers in politics, and maybe it is just as well; but they have a great responsibility."

— Robert Moses, quoted by Gen. W. E. Potter



TRANSITS, TUNNELS AND TEAMWORK — This artist's conception of the busy scene of activity in construction of an under-river tunnel accents the "team play" that characterizes all such heavy-construction projects. There's the transit man (right foreground) taking a reading as the giant boom lifts one of the ponderous cast-iron segments towards its position for bolting into the lining of the tube. There is an all-too-prevalent notion among student engineers that their possibilities in heavy construction end with being a rod man or transit man, but it is the purpose of The Moles' educational program to demonstrate the great breadth of opportunities in the construction industry throughout every one of many different phases of the business.

OUR HOST AT THE FAIR

Nominally (and very likely in-person) the host to the student engineers on their visit to the site of the World's Fair will be Major General William E. Potter (U. S. Army – retired), executive vice president of the Fair corporation.

General Potter is a 1928 graduate of the U.S. Military Academy at West Point; a graduate also of Massachusetts Institute of Technology and of the National War College, and had years of distinguished service in the Army's Corps of Engineers. At the time of his retirement from the Army in 1960 he was governor of the Canal Zone and president of the Panama Canal Company, having served in those positions since 1956.

ABOUT THE MOVIE

The movie to be shown at the evening session of the students' "down-to-earth" day will take them even more down-to-earth than their tours, namely to the ocean floor under some 200 feet of water off Los Angeles.

It is a dramatic film, produced for Raymond International, showing the laying of the Hyperion Outfall tunnel: seven miles of 12-foot-inside-diameter pipe, individual segments of which weigh up to 720 tons each, being 192 feet long! They were put in position — in a trench prepared in the ocean floor — by unique new methods, using placing equipment of the "Texas tower" type.

FACULTY REPRESENTATIVES of schools and colleges cooperating in The Moles' program for helping college men get better acquainted with the opportunities for engineers in construction are shown at the Nov. 8 Moles meeting at the Biltmore. Back row, left to right, are: Dr. Marvin L. Granstrom of Rutgers; Prof. E. C. W. A. Geuze of Rensselaer Poly; Prof. R. D. Mangasarian of Newark College of Engineering; Prof. John C. Gebhard of Cornell; Don King, A.S.C.E.; Prof. Morris Grosswirth of N.Y.U.; Prof. Saul Nuccitelli of Cooper Union; Prof. R. J. Leonard of Lehigh; Dr. Sidney F. Borg of Stevens Institute; Prof. Nelson Fisk of Columbia, and Prof. Robert B. Moorman of Brooklyn Poly. . . . Front row, left to right: Dean Herbert F. Roemmele of Cooper Union; Dr. Donald E. Waite of State University at Farmingdale, N.Y.; Prof. William W. Brotherton of C.C.N.Y.; Prof. R. P. Vreeland of Yale; Prof. Sumner B. Irish of Princeton; Prof. Frank Cannizzaro of Fairleigh Dickinson; Prof. Felix Wallace of Cooper Union, and Prof. James Pfafflin of Cooper Union.

Down-to-Earth Day

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by his committee with the enthusiastic co-operation of about a score of professors and deans of the faculties of the leading universities and engineering colleges of the East.

Other members of the Committee are: Robert Crimmins, vice chairman; Robert J. Armstrong, G. William Bailey, William A. Durkin Jr., Gerard M. Gaussa, J. Rich Steers Jr. and (ex officio) Howard G. Dixon, Henry A. Letoile and Charles Stillman.

The reference above to the "hard-hatted" aspect of the day's educational doings was not merely figurative. A number of big construction companies that have officials who are members of The Moles are donating actual hard hats such as their men — executives as well as hourly workers — wear while on the scene of construction, and these will become permanent mementoes of the day for the college men.

Faculty representatives who have met with Molemen to make plans for giving their students this close-up of the role of engineers in the construction business include, in addition to those shown in the photo above: Professors Donald J. Butler of Columbia, William A. Brown of Manhattan College, Mathew W. Stewart of Brooklyn Poly, G. Reed Shaw of Rensselaer Poly, Anthony J. Del Mastro of Rutgers, P. C. Wang of Stevens Institute, and Wilbur J. Widmer of U. of Connecticut. Also sitting in on the "strategy sessions" for the event has been Don King, assistant secretary of the American Society of Civil Engineers.

The program for the day, in more detail, goes like this:

• 10 a.m. — "Mobilization" of students, faculty reps and other guides, at one of the loading platforms in the PORT AUTHORITY BUS TERMINAL, 40th Street and 8th Avenue . . . Distribution of the "hard hats" and box lunches.

• TOUR — (Three busloads.) One stop will be the Manhattan-end approach of the George Washington Bridge. The construction complex here comprises a new bus terminal and the connections to the Cross-Bronx Expressway and the new Alexander Hamilton Bridge over the Harlem river. (It may be possible to include a ride across the George Washington Bridge on the new "slung-under" lower deck, not yet open to public traffic.)

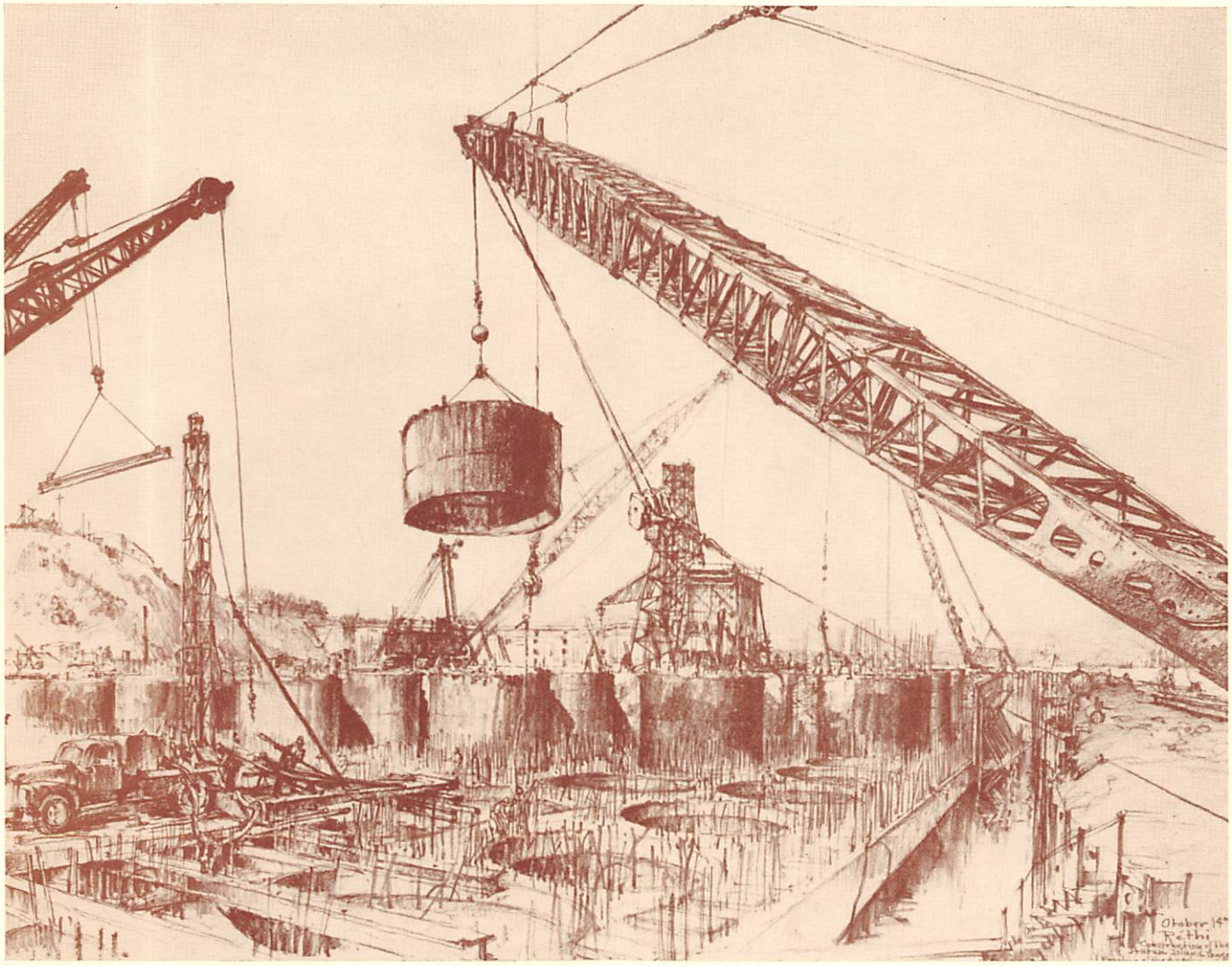
Another stop: A visit to the World's Fair site; discussion of plans for the Fair, illustrated by an extraordinarily detailed model showing the entire layout of the area with all exhibits to scale. In this same vicinity the students will be shown the construction of the new stadium being built for the "Mets" National League baseball team, and will examine, in that same neighborhood, a large area of construction going on in connection with roads and facilities for the Fair.

(Note: The tour will be scheduled so that there will be only one group — 40 to 45 students — visiting one location at a time.)

• 5 p.m. — Tour students arrive at new Engineering Societies Building, 47th Street and First Avenue. Informal discussion of what they've seen, with personnel from the jobs they've visited on hand to answer questions. Also, a showing of World's Fair motion picture.

• 6:30 — Dinner, in cafeteria of Engineering Societies Building.

• 7:30 — Evening meeting, in Engineering Societies Building. Members of The Moles, men particularly qualified to discuss particular segments of the construction industry, will constitute a panel of nine, each one giving a talk — not to exceed five minutes — on the functions of and opportunities for engineering-trained young men in a phase of the business . . . . a dramatic motion picture film of the famous "Hyperion Outfall" construction job off Los Angeles — seven miles of 12-foot-inside-diameter pipe laid in up to 200 feet of water — will be shown and narrated by George F. Ferris, board chairman of Raymond International and Member Winner of the 1962 Moles' Award . . . . A closing question-and-answer period, with the panel of experts "fielding" questions from the students.



REALLY HEAVY CONSTRUCTION is illustrated in this artist's rendition showing the placing of one of the several dozens of "dredging wells" in the Staten Island pier of the Verrazzano Bridge. Both of the water piers have been completed, and erection of the steelwork for the towers on both these piers is in progress. The Brooklyn and Staten Island anchorages and approach structures for this great new bridge over the "Narrows" are in process of construction now.

STILLMAN'S COOL ON IVORY TOWERS

Charles Stillman of Linde-Griffith Construction Company, Newark, an expert on sub-surface conditions, was the first chairman of the Education Committee of The Moles, when this activity was undertaken in 1955. As president of the New Jersey Society of Professional Engineers he had been active in the scholarship program of that society. He is a graduate — 1922 — of The Cooper Union.

In a recent article in which The Jersey Journal (Jersey City) highlighted his career, he was quoted as having observed that sometimes engineers "build themselves into an ivory tower," and that, while "towers are fine for scanning technological horizons," engineers peering from their tops sometimes overlook "what's going on right under the parapet in their communities."

About the Artist

The three striking pencil drawings in this issue of Holing Through are the work of a remarkable lady, Miss Lili Rethi, F.R.S.A. At the age of 3 in her native Vienna she sought release from an over-protected childhood by drawing pictures of street-paving equipment she could see from her yard, and she has been capturing on paper the spirit of other intensely masculine things like bridge and tunnel construction — and even coal mines — ever since. (There's not an architect or an engineer in her family.)

She has lived in New York since 1939, having come here on assignment from the "Illustrated News" of London to "do" that World's Fair. She has some difficulty getting as close, physically, as she would like, to some of the great construction projects she draws because of the superstition that women are "bad luck" in tunnels. But once, when she was a young girl, she sketched away, all day, every day, for a week in a coal mine in Belgium, disguised as a boy!

Last year Lili was honored by being made an "F.R.S.A." — Fellow of the Royal Society of Artists (of England).

Her friendship with Ed Brause of Merritt-Chapman & Scott led to the use of these three drawings in this special edition of Holing Through.