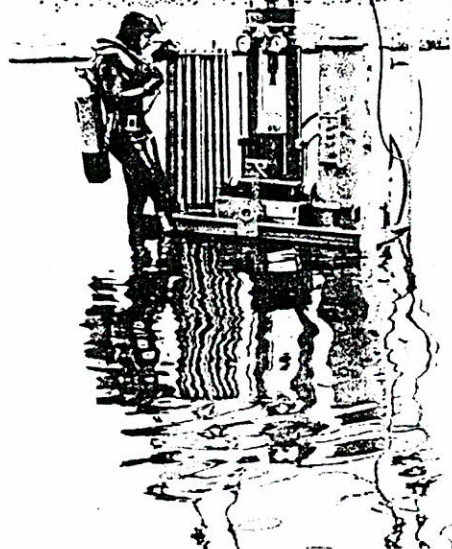
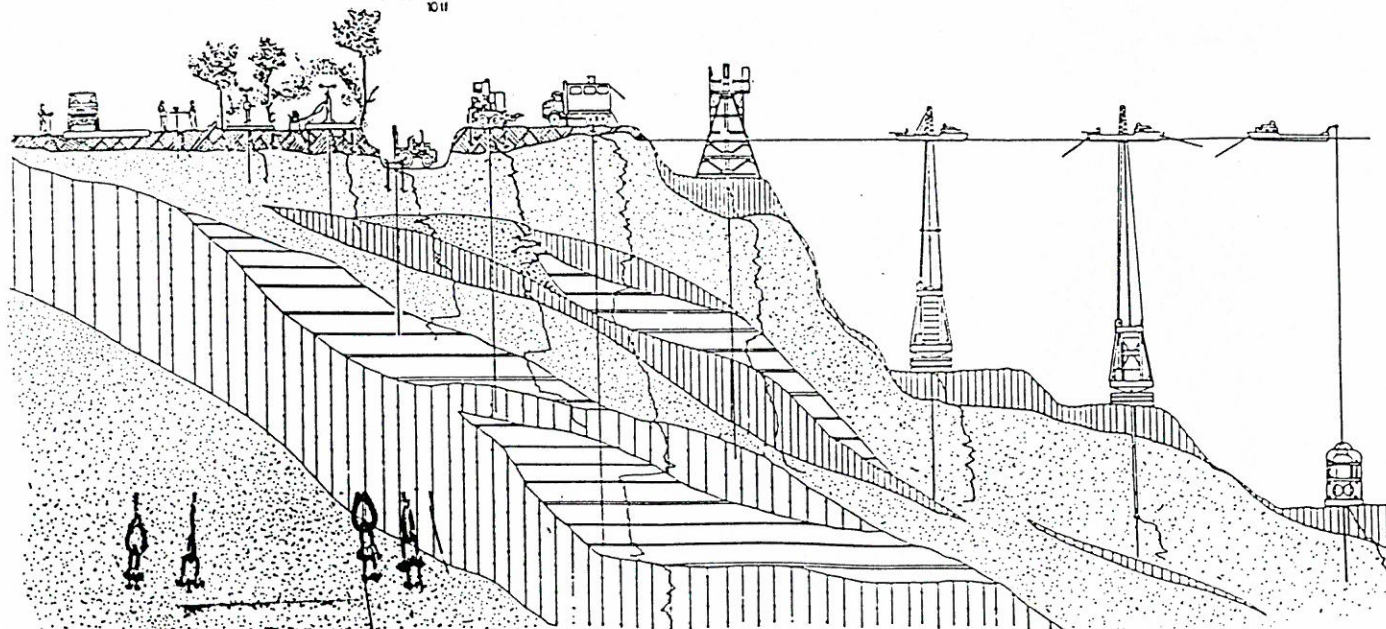


IMPROVED SOIL TESTING METHOD

*Techno - Ocean '88
latest Development
Static Dutch Cone
Penetrometering
equipment!*

Used for Offshore

HANSON-5 HANSON-10 HANSON 5 II LW 10 II LW HANSON 10 II 20 II trailer mounted HANSON 10 II 30 II truck mounted HANSON 5 II 30 II platform mounted HANSON 25-20 II WISNAP 5 II RECLAB BIRD-CAGE PENETROMETER 5H



Arie P. van den Berg, founder and President of the A. P. van den Berg Ingenieursburo B.V. is fond of saying, 'We are the beginning of everything!' In actual fact in construction projects where soil testing is necessary before building can begin, practically all of Holland, quite often van den Berg equipment is used for the geotechnical site investigations. Using what is called the 'Dutch cone method', or cone penetration test (C.P.T.), patented by Prof. Barentsen in 1933, van den Berg has designed sophisticated and accurate testing equipment that is used all over the world.

The method is based on pushing cones into the soil at which the resistance is measured at regular intervals. Van den Berg has developed both electrical and hydraulic static cone penetration equipment that can be used in all sorts of soil conditions, underwater, and with a soil sampler if desired.

Founded in 1968:

Mr. van den Berg started his own engineers bureau in 1968 because he had more ideas for improving existing and designing new penetrometering and measuring devices. It has grown into an internationally recognized company with three basic product groups; static cone penetrometers, soil samplers and auxiliary equipment for geotechnical site investigation; oil-hydraulic applications for new construction in soil mechanics, equipment for industrial and agricultural pur-

poses; electrical measuring and controlling equipment. Van den Berg now has 40 employees of whom 1/3 are engineers. The firm is research oriented, 10% of the annual turnover, which in 1984 was five times as much as in 1981, is fed back into research and development. Export which was 20% four years ago is now 80%.

On Solid Ground:

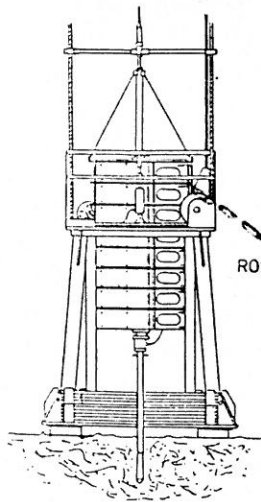
It isn't really suprising that it was in Holland that the first accurate soil testing method was developed, at least

a third of the country would be basically marsh without the constant draining and pumping activities that are carried out. Every new construction project in the country has to include geotechnical site investigation to measure the density of the ground, to determine at what depth it is solid enough to support the weight of building. Soil testing used to be 5%-10% of the construction cost, new techniques of recording and measuring have reduced the cost to an average of 2%.

Van den Berg's truck or trailer mounted penetrometers are a familiar

sight at construction projects in many countries, often combined with a soil sampler unit which can lift a core of ground at nearly any depth. The testing equipment is also widely used by Soil Mechanics Laboratories and government agencies. These penetrometer units are manufactured under licence in the U.S. by Terrametrics, in Seattle, Wash.

Recent, patented, van den Berg



ROSON 20 Tf.

developments of seabed penetrometers are drawing interest from professional circles all over the world.

Offshore:

The search for offshore oil and gas deposits is creating unprecedented demands for information on seabed conditions. Such information is needed not only for locating possible deposits but, just as on land, where the drill will produce the final answer, for the correct location of drilling rigs, jack-ups, production platforms and pipe laying. The van den Berg wireline sounding and sampling equipment is able to deliver accurate readings during seabed penetrometry up to 500 meters water depth. For water depths of up to a 1000 meters in open sea the recently developed Roson, automatic, vessel mounted units portable are providing even more reliable data than the conventional discontinuous system. They use a continuous push system instead of the intermittent thrusts of other methods, which gives undisturbed data input. After comparing the systems the Norwegian Geotechnical Institute has recommended that this method be used. The operation and measurements are carried out by engineers of the van den Berg organization who are on hand if anything goes wrong.

The increasing acceptance and success of the seabed penetrometers has led to the formation of a new third company. The second is van den Berg Hydraulics located across the (private) street from the engineering bureau.

Rental Company:

This new offshore service company, Oserco B.V., is being set up by the NOM, Roganco and van den Berg. The company will rent equipment and make available operators to companies needing seabed soil testing. At present 80% of the market is controlled by a small group of soil investigation companies, the other 20% (a growing percent) will have access to van den Berg equipment, via Oserco.

The offshore is becoming a more and more important part of van den Berg's activities, about 20% at present, a percentage that Mr. van den Berg expects to increase, however, he doesn't stop there, he sees a whole future underwater.

Visions of the Future:

'On land we've just about had it and 70% of the earth is water. The ground doesn't stop at water's edge and we are going to have to learn and to acquire experience in exploiting seabed resources. It must be a carefully controlled growth to protect the environment but there is much to do.' It is hard to resist Arie van den Berg's enthusiasm and visions for a new underwater world. Not only for mining purposes but also for living, he envisions domed cities with tunnel connected buildings.

And whether it relates to sea cities or desert cities the latter created by huge irrigation projects, one thing is clear. Soil investigation is a necessary pre-requisite, preferably using a van den Berg static cone penetrometer unit!

