

GENERAL REPORT ON THE ACTIVITIES OF THE SECOND INTERNATIONAL CONFERENCE

CN SOIL MECHANICS AND FOUNDATION ENGINEERING, ROTTERDAM JUNE 21 TO 30, 1948

This general report is written for the information of those interested in the origin, the purpose, the preparatory organization and the activities of the Conference. So it will serve as a permanent record of the most important events, meetings and excursions, which have taken place, and of the experience gathered in organizing this important event. It can not give the real value of the Conference as it is impossible to give a record of a great many interesting happenings and of the intimate personal contacts between the participants, which will remain pleasant memories and will help for a better collaboration in the future.

It is hoped that this report further will be of value for the organizers of the next Congress.

PURPOSE OF THE CONFERENCE.

The overwhelming number of contributions and the quality of the reports received on the First International Conference in Cambridge Mass., gave rise to the desire that the valuable work of the Conference and a cooperation of its members should be continued. A proposal regarding the continuation of the work of the Conference was presented by Mr. Carlton S. Proctor, who suggested to hold this Second International Conference in Holland, because of the work done there and because of its central location.

In a resolution adopted by the Conference was expressed that this second Conference be called to meet at a time and place to be selected by the President, with the advice of the International Committee. Preparations for this Second International Conference in the Netherlands in 1940 in honour of the opening of the Maastunnel at Rotterdam, were taken in hand, but alas were soon interrupted in consequence of the second world war, which prevented the organization.

Soon after the war, the time came to resume the former plans. As the war had interrupted the needful international relations and because all sorts of troubles prevented personal contact and the obtaining of new literature it was certainly the moment to get the scientific workers on Soil Mechanics together and to give more publicity to the results of their work. For this reason the purpose of the Second Conference could be summarized as follows:

1. to renew the international contact of the specialists in Soil Mechanics;
2. to collect the most recent information of the various new or extended laboratories, especially of their works program and specialities;
3. to improve international cooperation;
4. to collect and compare the results of various investigations which have been made in different laboratories and those which are still in progress and the closer collaboration of the specialists in order to advance the science as rationally as possible;
5. to collect as much information as possible about the development of Soil Mechanics and its applications and to place

this information at the disposal of all interested engineers.

After preliminary discussions with the President, an Organizing Committee was formed. The Netherlands Government and the Municipality of Rotterdam invited the Permanent Committee of the International Conference on Soil Mechanics and Foundation Engineering to hold the Second Conference in 1948 in Rotterdam. Although the Netherlands were no more the prosperous country as before the last war - on the contrary they came out of this war as one of the most heavily damaged and pillaged countries - the Government and the Dutch people wished to show how much energy and resources were already directed to overcome the endured evils of the war. It was symbolic, that Rotterdam, the most heavily damaged and pillaged countries - the Government and the Dutch people wished to show how much energy and resources were already directed to overcome the endured evils of the war. It was symbolic, that Rotterdam, the most heavily damaged large town of the country, has been chosen as the set of the Conference. During and after the Conference there was plenty of opportunity to take note of the measures which are being taken everywhere in the country to restore the damage in the sphere of Public Works, Industrie and Housing.

The attraction of the Conference was increased as the Second World Conference for the Technical Science of the Underground Town Planning has been held at the same time. The main point discussed at this Conference was the planning and exploitation of underground Constructions.

ORGANIZATION OF THE CONFERENCE

The Organizing Committee was honoured by the information, that the Conference would be under the high patronage of Her Majesty the Queen of the Netherlands. Different dignitaries from the Government, the Delft Technical University, Municipalities and Directions formed a Committee of Honour. Professor K. Terzaghi, who was elected in 1936 as President of the International Conference acted in that capacity during this Second Conference. Professor A.W. Skempton was asked to act as Vice President and Ir. T.K. Huizinga acted as Secretary to the Conference. The Organizing Committee soon appointed subcommittees on registration, information and hotel accomodation, on excursions and transport, on meetings, for the editorial work and for the ladies. In total about 50 persons have done their utmost to make the Conference a success. During the registration day about 30 extra persons were in charge in order to facilitate the work to be done in the few hours available.

PARTICIPATION

The Organizing Committee issued preliminary bulletins in May and September 1947 in which the Conference was announced, particulars were given of a tentative program for the meetings and the subjects to be treated and in which the conditions for the contribution of reports were

stated. Bulletins of January and April 1948 contained application forms and further particulars for participants of the Conference.

Anyone interested in the Conference whether from the standpoint of practical application, research or teaching, was welcome to attend the meetings and to contribute reports or discussions. To compensate a part of the routine expenses of the Conference a sum of 20 guilders was required from the participants. It was difficult to estimate the number of participants. Taking into account, that the first Conference had about 200 members, that the science of Soil Mechanics has grown very much during the last decade, but also the difficulties which still existed on money exchange and traffic between different countries, plans were made for about 300 participants. This tax actually was far too low and the overwhelming number of 596 participants has given some trouble, for example for hotel accommodation as several hotels have been destroyed during the war, both in Rotterdam and The Hague.

A complete list of participants arranged according to their countries is contained in this volume.

LANGUAGE

Just as in 1936 the Organizing Committee carefully considered the question of language barriers and decided in concert with the Pre-

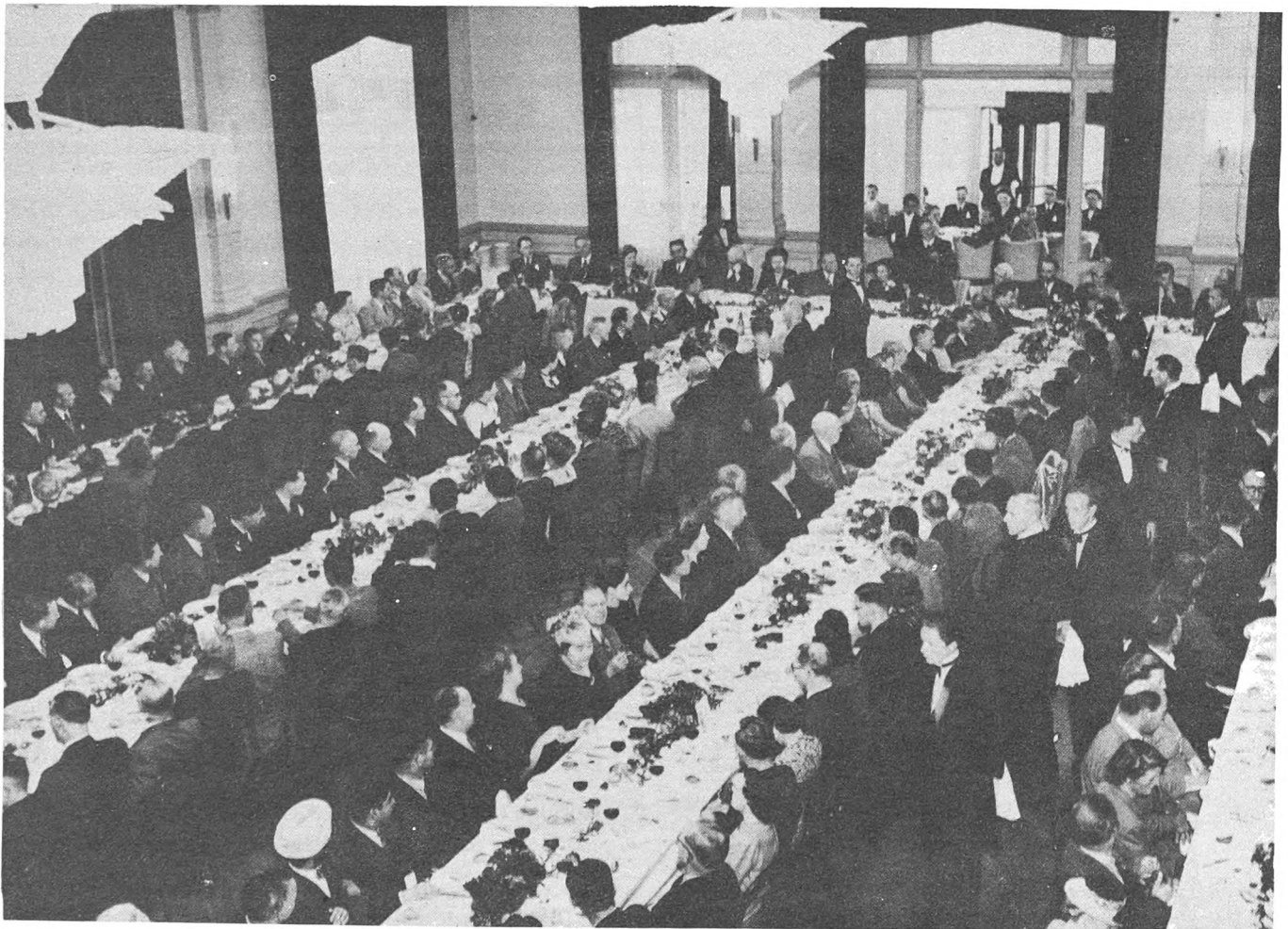
sident of the Conference to confine the Proceedings of the Conference essentially to the English language. The favourable result obtained in Cambridge has promoted this decision. It was expected that the use of one official language would contribute much to the success of the Conference, while by that means the cost of the Proceedings would be less. As it was expected that this requirement would be a hardship for some members, interpreters were present at the Conference to help those members who did not speak English fluently.

The use of a single language made it possible to have printed five volumes of the Proceedings prior to the Conference.

CONTRIBUTIONS

In accordance with the purpose of the Conference there were no restrictions as to the number of contributions placed, provided they were within the scope of the Conference. However, to make it financially possible that all papers could be included in the Proceedings and that, in order to stimulate discussions, these papers would be available in printed form prior to the Conference, certain restrictions in regard to the length of the papers had to be adopted and the submission should be not later than first January 1948.

The following abstract from bulletin No. 2 covers this subject in detail.



Informal dinner at Kurhaus Hotel, Scheveningen.

CONDITIONS FOR THE CONTRIBUTION OF REPORTS

In accordance with the purpose of the Conference there are no restrictions as to the number of contributions, which may be accepted, provided they are within the scope of the Conference and as far as the contents are still not published in one or other magazine before first January 1948.

In this way it is hoped to make available as much new information as possible about the advances in Soil Mechanics and their applications to the world of engineers.

The contributors must hold themselves to the undermentioned instructions if the intended purpose of the Conference is to be fully accomplished:

1. a definition of the subject in the English language of maximum 500 words must be submitted in triplicate to the Secretary not later than 1st October 1947. This will be taken as a notification of intention to submit a paper, and all further necessary information regarding the contribution will then be mailed to the author,
2. each contributor shall submit to the Secretary not later than 1st January 1948, five copies of his papers in English of not more than 2500 words. The papers should contain a well considered summary, conclusion and all necessary figures and tables. It is very essential that titles and nota-

- tions and numbers in the figures should be clear and of such dimensions that a clear photographic reduction of the figures will be possible. All photographs should be glossy printed and at least 4 inches wide,
3. papers which may be eventually published after 1st January 1948 may also be submitted. If the publication is not in English the contributor must keep to the conditions outlined under 2. If the publication is in English, it will suffice that the contributor furnishes 300 reprints of his paper to the Secretary, instead of the conditions under 2, if this should be before 1st May 1948. These reprints will be mailed to the members of the Conference together with the reports mentioned under 2.

There are no restrictions on the publication of a paper after it has been submitted to the Conference.

In this way it is hoped to distribute the papers in sufficient time before the Conference, so that everybody will be able to study them and, if possible, send written observations and discussions to the Conference.

When the Conference is over, these observations together with the transactions of the Conference will be placed at the disposal of members in a supplementary volume.

As literature since the war is difficult



A serious problem

to obtain it is recommended that a national exposition of the latest developments and ideas in the sphere of Soil Mechanics with a list of literature, should be given.

It is planned to publish the reports sent to the Conference. Whether it will be possible to publish all papers in full cannot yet be stated. If there are any restrictions with regard to the publication, the merit of the contributions will be determined with the help of a questionnaire, which will be submitted to the authors.

Discussions will be published following the Conference unless it is requested otherwise.

SUGGESTIONS TO THE CONTRIBUTORS

It is very desirable that the following suggestions will be carefully considered by the contributors. All papers or discussions dealing with the behaviour of a special type of soil shall contain a reliable description of it, while at the same time the stated behaviour should be explained with sufficient test results to enable the reader to compare these results with his own experience. Excellent papers may lose their entire value by using vague names without adding data fixed by test results.

Particularly the results of field tests are very important for the Conference, such as: settlements records over long periods, accurate pile loading tests, etc.

It is necessary that all results of special tests in Soil Mechanics Laboratories shall be widely known. Therefore the directors of these laboratories are requested to submit to the Conference reports on such tests. The author is requested to omit details of limited interest and to replace descriptions which can be given more simply by graphical representations and tables by such.

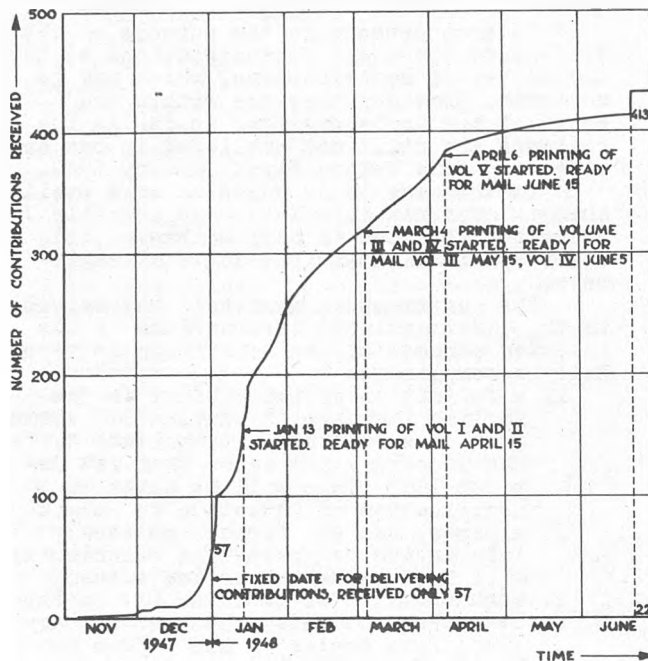
It is urged that contributors replace the written word as much as possible by drawings, diagrams, photographs and tables. By this, the text should be clear and brief (maximum 2500 words). A varied subject can better be presented in two short articles than in one long article. A short introduction should precede the article in which the purpose is explained and it should be concluded by a short summary. The lettering on all illustrations should be clear and large enough to permit reproduction on a considerably smaller scale as is usual in technical magazines. Particular attention should be paid to this detail. Generally speaking drawings made for other purpose are not suitable for good reproduction. All photographs should be glossy prints and their smallest dimension should not be less than four inches (10 cm).

Of the entire number of 413 contributions which were accepted prior to the Conference only 57 were submitted on the fixed date. In the 6 volumes of the Proceedings 392 will be printed.

Efforts are now made to print the remaining contributions and those received in the French language in a 7th volume.

To give an idea about the difficulties the editorial board and especially the printer have had to print the reports in time, a diagram is given in which the number of contributions received is plotted against time.

For this Second Conference the number of contributions proved to be far more as initially was expected. This fact and be-



cause they were handed in at a very late date made it not possible to have them printed in the sequence given in the program of topics. On the contrary contributions belong to one section had to be placed in different volumes of the Proceedings.

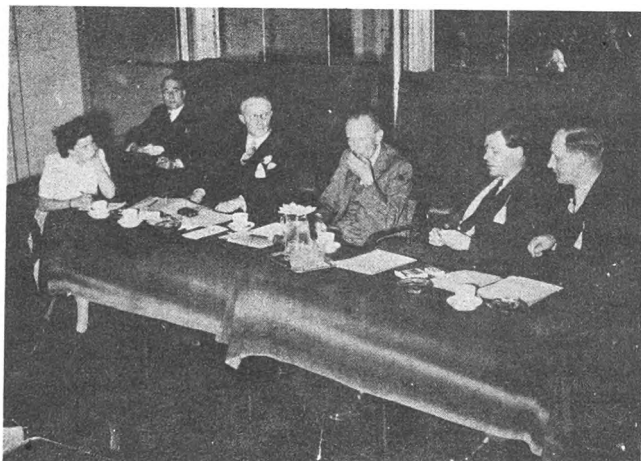
MEETINGS AND OTHER EVENTS OF THE CONFERENCE

Monday June 21.

For the members arriving in Holland, information offices were provided in the Conference building "Palace Theater", Rotterdam, and in the lobby of Hotel Kurhaus, Scheveningen.

At 5.30 P.M. the Royal Netherlands Institution of Civil Engineers had invited the President Prof. K. Terzaghi and the Vice President Prof. A.W. Skempton with the Organizing Committee and their ladies for an aperitif in their office.

At 7.00 P.M. this company drove to Scheveningen where about 400 participants already were assembled for an informal dinner in Hotel



Special meeting on international collaboration.

Kurhaus. The Royal Netherlands Institution of Engineers was represented by their President Dr. Ir. J.A. Ringers, who presided the table and cordially welcomed the participants and the ladies. This dinner intended to enable members to make acquaintance and to see old friends, was a success so that after dinner most of the members stayed until late in different bars in the neighbourhood.

Tuesday June 22.

In the forenoon the registration of the members at the Palace Theater took place. More than 65 persons registered of whom no prior announcement had been received, thus taxing the lodging accommodations to the utmost.

At 2.00 P.M. the opening of both Conferences in the City Theater of Rotterdam took place. An opening word was spoken by the President of the Organizing Committee Ir. J.P. van Bruggen, Chief Director of Public Works, of Rotterdam after which the opening address was submitted by Dr. Ir. W.J.H. Harmsen, General Director of the Rijkswaterstaat, representative of the Netherlands Government. Prof. K. Terzaghi gave in his presidential address a short resume of the progress in the science of Soil Mechanics after the first Conference. Ir. J.P. van Bruggen after acknowledging the addresses then closed the meeting.

In the evening half of the members assembled for a visit to the Laboratory of Soil Mechanics at Delft, where they were welcomed by Ir. E.C.W.A. Geuze, Head of Research Department of this Institute.

In Palace Theater a meeting of about 20 representatives of different national committees took place to discuss the statutes of the International Society for Soil Mechanics and Foundation Engineering, Prof. Terzaghi presided this lively meeting, which lasted until very late and resulted in a proposal to the Conference.

From 17.30 - 19.30 the American members of the Conference were invited by the American Consulate in Rotterdam for a cocktail party.

The ladies made in the evening an excursion to the old town of Delft, where remarkable, buildings, the canals and a shop of Delft pottery were visited.

Wednesday June 23.

9.30 - 12.00 First meeting. J.D. Justin presiding.

9.30 - 10.00 Lecture by Prof. Ir. P.Ph. Jansen on the closing of the gaps in the dikes of Walcheren.

10.00 - 12.00 Opening discussions by the reporter Prof. A.E. Bretting on the sections IV, V and X on earth constructions, earth pressure and ground water.

Discussions with closing remarks of Prof. Terzaghi.

14.00 - 16.30 Second meeting. R. Glossop presiding.

14.00 - 14.30 Lecture by Ir. D.H. de Herder on the harbour reconstruction at Rotterdam.

14.30 - 16.30 Opening discussions by the reporters Prof. A. Caquot and J. Lehuérou - Kerisel on the sections VI and VII on raft and pile foundations.

Discussions with closing remarks of Prof. Terzaghi.

20.00 - 22.00 A second group of members visited the Laboratory of Soil Mechanics at Delft, where they were welcomed by Ir. T.K. Huizinga. The ladies made an excursion to Amsterdam, where they visited the State Art Museum.

Thursday June 24.

9.30 - 12.00 Third meeting. Prof. K. Terzaghi presiding.

9.30 - 10.15 Lecture by Ir. J.L.A. Cuperus on the stabilization of railway embankments, with motion pictures.

10.15 - 12.00 Opening discussion by the reporter Dr. Ir. E. de Beer on the organization of the International Conference.

Discussions and fixing of the statutes.

By lack of time the discussions on international collaboration were not held.

14.00 - 16.30 Fourth meeting. Fr. A. Marston presiding.

14.00 - 14.30 Lecture by Ir. J.P. van Bruggen on the construction of the Maas-tunnel at Rotterdam.

14.30 - 16.30 Opening discussion of the reporter W. Kjellman on the sections II and III on investigations in the laboratory and the field.

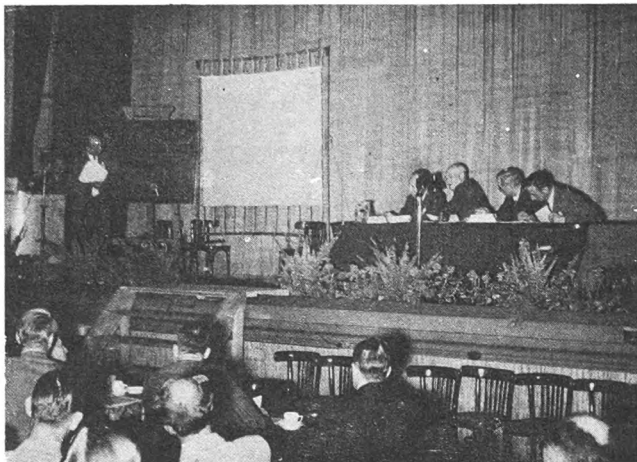
Discussions. The ladies made a trip to Haarlem along the dunes to visit the Frans Hals Museum.



Dinner in Rotterdam Townhall.



Cherry - time.



Rostrum during discussion.



Boat trip through Amsterdam.

17.00 - 23.00 Official reception by the Municipality of Rotterdam with an aperitif and banquet in the City Hall and a concert in the City Theater. Address of welcome by Mr. van Tilburg, Deputy Burgomaster. Answering address by Prof. K. Terzaghi.

Friday June 25.

9.30 - 12.00 Fifth meeting. W.J. Turnbull presiding.

9.30 - 10.00 Lecture by Ir. H.A.M.C. Dibbits on road construction on soft subsoils.

10.00 - 12.00 Opening discussion by the reporter G. Wilson on section VIII and IX on roads, runways and soil stabilization. Discussions with closing remarks by Prof. Terzaghi.

14.00 - 16.30 Sixth meeting. L.F. Harza presiding.

14.00 - 14.30 Lecture by Ir. T.K. Huizinga on the geology of the Netherlands in connection with soil mechanics.

14.30 - 16.30 Opening discussion by the reporter R. Ruckli on section I on theoretical subjects. Discussions with closing remarks by Prof. K. Terzaghi. The ladies made a trip to the Westland to visit nurseries and auction of flowers, vegetables and fruit.

17.00 - 18.00 A meeting of European members took place to discuss the proposals of Golder and Glossop for the possibilities of an European Society on Soil Mechanics and to stimulate the collaboration between them.

21.00 - 23.00 Official reception of the members by the Government at The Hague in the Kasteel Oud Wassenaar. Address of welcome by Mr. J. in 't Veld, Minister of Housing and Reconstruction.

Saturday June 26.

9.30 - 12.00 Excursion to the tunnel under the river Maas at Rotterdam.

14.00 - 15.00 Final meeting. Prof. K. Terzaghi presiding. Address by Prof. K. Terzaghi.

16.00 - 17.30 Official closing of the Conference in the Palace Theater Rotterdam. Ir. J.P. van Bruggen presiding. Address by Prof. K. Terzaghi. Closing remarks by Ir. J.P. van Bruggen.

20.00 Farewell dinner at Hotel Kurhaus Scheveningen. Farewell address by Prof. K. Terzaghi.

Sunday June 27.

7.45 - 18.30 Excursion along the roads and polders of the province of North Holland. A visit to the old polders and the new Wieringermeer polder and to the dike closing the Zuiderzee with its dewatering - sluices and shipping locks. The route was taken through some old picturesque towns and along an old dune country

Monday June 28.

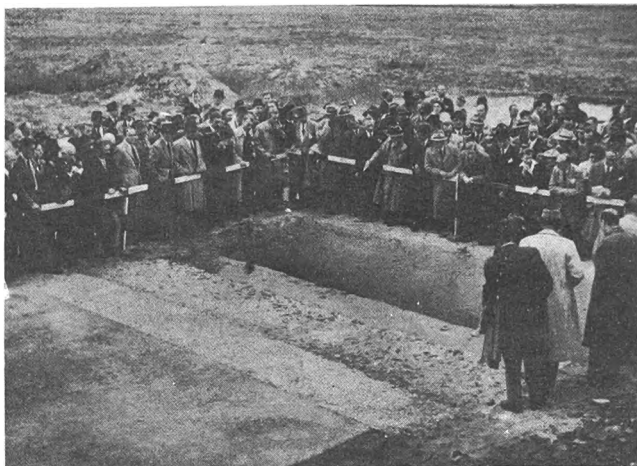
9.00 - 18.00 Excursion to Amsterdam with a boat trip through the old canals and the harbour of the town. Reception by the Municipality of Amsterdam with a lunch in the principal building in construction on the Schiphol Transoceanic Airport. Visit to the airport where the extension works and the "sandwich" runways were shown. The return trip was made along the rivers Vecht and Oude Rijn with their lovely old country houses.

Tuesday June 29.

9.00 - 18.00 Excursion by boat along the reconstruction works of the harbour basins of Rotterdam, followed by a trip on the Dutch tidal rivers where some large bridges were passed. Visit to a typical Dutch landscape with more than 20 windmills.

SUGGESTIONS FOR FOLLOWING CONGRESSES.

The Organizing Committee and especially the Editorial Board have experienced some difficulties well deserving to be pointed out. Although the bulletins issued by the Com-



Sandwich construction, Schiphol Airport.



Farewell after the last boat trip.

mittee contained several suggestions to the contributors of reports regarding the quality of drawings etc., these suggestions in many cases were disregarded. As this caused much trouble extra work and delay, first of all the instructions for the authors should be more precise so as for the sizes of drawings and photos, the thickness of the lines and the sizes of the letters. Drawings in the purest white and black are by far the best for reproduction. The recording of literature references should be normalized.

Secondly the classifying of the contributions in accordance with the Sections indicated in the program proved to be difficult. Especially section I on theoretical subjects should be divided e.g. in 3 sections containing: general considerations; classification, physical and physico-chemical properties; soil mechanical theories. One contribution should only go into one section or should be divided into more than one.

As the price of the Proceedings and the possibility to have these printed in time depends on their number and their bulk, it is necessary to know the number of contributions and of subscribers at an early date. The National Committees can be of great help to the Organizing Committee in obtaining these data.

During the Conference it turned out due to a large number of discussions that the time available was rather short. It is suggested that in further conferences more time should be allotted for this purpose.

Last but not least it should be pointed out that the success of a Conference depends to a large degree on the timely publication of the Congress reports that are to be discussed. Therefore contributors of reports cannot be urged too much to have their contributions available for reproduction at the date

fixed by the Organizing Committee.

ACKNOWLEDGEMENTS.

The Organizing Committee wishes to express its special gratitude to the Netherlands Government; the Municipalities of Rotterdam and Amsterdam; the Netherlands Railways and many other officials for their great help in organizing the Second International Conference on Soil Mechanics and Foundation Engineering.

It is a pleasant duty, to thank all the members of the different committees for their endeavour and enthusiasm. The splendid success of the Conference was primarily due to the intense and hearty cooperation of all the members.

Further the success of the Conference was in a large part due to the work of its President Prof. K. Terzaghi, who has given stimulating interest in our branch of knowledge in his lectures and discussions. His discussions will give rise to more international collaboration on different research problems.

All who participated the Conference will agree with a special word of gratitude to the Chairman and the General Reporters who have fulfilled their difficult task in such a splendid fashion. The work, the general reporters have done in a rather short time, due to the overwhelming number of contributions who came in mostly at a very late date, has our whole admiration.

The Proceedings were printed by Gebr. Keesmaat, Haarlem according to the Planograph process. Considering the unusually short time which was available for the printing of the first five volumes and the inhomogeneity of the contributions, especially the size and execution of the drawings, their appearance has been made very satisfactory.

Delft, the Netherlands,
October 1, 1948

Ir. T.K. Huizinga,
Secretary to the
Conference

FINANCIAL REPORT

The number of participants of the Second International Conference on Soil Mechanics and Foundation Engineering was 596, that of the Second International Conference on Underground Town Planning 109, of which in total respectively 147 and 12 ladies.

ference has been fixed so, that the printing costs, the transport and the assurance were included. It will be worthwhile to memorate, that besides the costs of the Editorial Board additional costs up till approximately f 6000 were paid for corrections and drawing work.

Registration fees Soil Mechanics	8316.51	
Registration fees Town Planning	1130.--	
Meetings		9499.80
Dinners and Receptions	6890.55	8298.75
Excursions	11675.--	9145.13
Information offices		591.75
Secretariate		4518.63
Printed matters, stamps, etc.		8152.15
Various		681.86
Deficit	12876.01	
	40888.07	40888.07

In the above mentioned costs the salaries of the members of the various organizing committees and subcommittees are not included, as they were carried by the various Directions to which these members belong.

The price of the Proceedings of the Con-

The number of Proceedings printed was fixed after having made an inquiry by the National Committees about the required number. At this moment about half of the estimated numbers is ordered and expedited.

Ir. W.C. van MIERLO, Treasurer.