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A Message from the President

By Professor Pedro Sêco e Pinto

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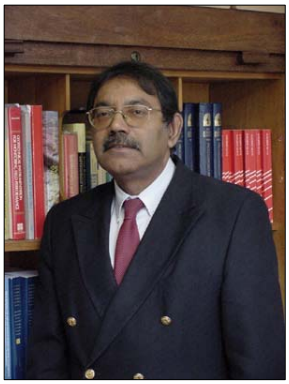


Following my past policy of informing all ISSMGE Members about the main ISSMGE activities through my messages in the ISSMGE Newsletters, it is for me a great pleasure to address all of you in this first issue of the new ISSMGE Bulletin. Our goal is to make ISSMGE News more attractive to all of you and the ISSMGE Bulletin has been devised to include a message from the president, current TC activities, reminiscences, views of young members, case histories, activities of member societies, other news and an event diary. Osamu Kusakabe, ISSMGE Board Member, has kindly accepted to co-ordinate ISSMGE Bulletin.

Bearing in mind that when you receive this message, about 18 months will have passed since my election in Osaka, 11 September 2005, and it is timely to review the progress made, to analyze the present situation, and to think of the future. The visits and meetings with Member Societies of Latvia, Estonia, Lithuania, Greece, France, Netherlands, India, CTGA (Senegal), Hungary, Italy, Korea, Germany, Slovenia, United Kingdom, Croatia, Chile, Paraguay, Brazil, Japan, Spain, Ukraine, Indonesia, SEAGS (Singapore) and Egypt have been a great opportunity to become acquainted with their achievements, needs and expectations. I should like to stress that the generous reception, the warm hospitality, the enthusiastic attendance to the lectures that I have delivered, have left me with wonderful memories and were a balsam for the tiring trips. Also, during 2007 I am planning to visit Member Societies from Tunisia, Albania, Vietnam, SEAGS (Malaysia), Croatia, Italy, Poland, Greece, Venezuela, Nigeria, Spain, Mexico, Indonesia, Australia, China, CTGA (Cameroon), SEAGS (Thailand), India and Sri Lanka.

This interaction with Member Societies helps me to lead the Society with hope by exploring the windows of opportunity and creativity whilst considering the past lessons and preparing for the future with respect and attention to the Member Societies activities. I always have in mind the best interests of all Member Societies and particularly supporting weaker members, hopefully contributing to the strengthening and cohesion of our Society. I believe that we are on the right path, but there is still a long way to go. We are living in a world of great change and complexity and ISSMGE needs to face these challenges, to continue our efforts in order to build the future and to turn our dreams into reality. Twenty three Technical Committees were set up based on a policy of innovation, with better involvement of Member Societies and greater geographical distribution of core members, the inclusion of young engineers, and the cooperation between ISSMGE and Industry. The chairpersons were requested to put considerable efforts in the Planning of Activities, and the dissemination of the TCs work and deliverables. Their mid-term report will be submitted for Brisbane Council meeting. Also it is important to stress that the success of the TCs requires the combined efforts of TC Chairpersons, Core Members, appointed Members and Host Member Societies. The TCs will contribute to the advancement of knowledge in geotechnical engineering.

In 2006, Touring Lectures took place in Chile (21-22 August) and Paraguay (24-26 August) and in Tunisia, (15-16 December) and covered the following topics: Earthquake Geotechnical Engineering, Design of Pile Foundations and Soil Improvement. In all, there were more than 100 attendees, and all received a volume containing the lectures and a CD Rom. The Touring Lectures were considered to be a great success and have contributed for the increase in membership. In 2007, Touring Lectures will take place in Albania (19-22 April), Vietnam (2-5 May), Croatia (17-19 May), Nigeria (3-5 September), Indonesia (17-18 October), China (30-31 October) and Sri Lanka (16-18 December) and will cover topics such as Embankment Dams Engineering, Ground Improvement, Eurocodes 7 and 8, Environmental Geotechnics and Soil-Structure Interaction. The ISSMGE Touring Lectures address the real needs of practicing engineers and are organized with the support of Industry and participation of Technical Committees.

A Message from the President (continued)

By Professor Pedro Sêco e Pinto

The Board has a special interest in young geotechnical engineers, and is continuing its efforts to encourage their participation in our Society through Regional Young Geotechnical Engineer Conferences, and the next International Young Geotechnical Engineers' Conferences at the time of the XVII ICSMGE, in Alexandria, 2009 as well as in the Technical Committees.

ISSMGE at present has four Task Forces which are working to turn ISSMGE activities more relevant and valuable

- Industrial Liaison, Professional Practice and Policy Documents: chaired by John Seychuk, with John Christian as co-chair;
- Geo-engineering Resources/Education: chaired by Waldemar Hachich, with Mounir Bouassida as co-chair;
- Communications, Information and Information Technology: chaired by Osamu Kusakabe, with John Carter as co-chair;
- Role and Format of International Conferences: chaired by John Carter and co-chaired by Roger Frank.

At the Council Meeting in Osaka, 11 September 2005, it was agreed to continue developing the idea of a Federation of International Geo-engineering Societies (FIGS). Subsequently, meetings between the Presidents and Secretaries General of IAEG, ISRM and ISSMGE took place in Paris, 11 November 2005 and in Amsterdam, 12 May 2006 and a Cooperation Agreement for FIGS was prepared and submitted to the Council meetings of IAEG and ISRM. Also 7 Joint Technical Committees were established.

The IAEG Council meeting took place in Nottingham 6 September 2006, at the 10 IAEG and the FIGS Agreement was approved with 79.6 % of votes. At the invitation of IAEG, the presidents of ISRM and ISSMGE attended the Council meeting as observers. The ISRM Council meeting took place in Singapore, 7 November 2006 and the FIGS Agreement was approved by unanimity. At the invitation of ISRM, I attended the meeting as an observer. After interaction with Member Societies at the mid-term ISSMGE Council Meeting in Brisbane, 21 October 2007, the FIGS Agreement will be discussed, and a ballot will be held.

In addition, during FIGS meetings in Nottingham 8 September 2006 and Lisbon 22 January 2007, the activities of the Joint Technical Committees were analysed, and co-operation with other Societies and International Year of Planet Earth (IYPE) was discussed. It is expected that FIGS will promote the awareness of geo-engineering, and through the Joint Technical Committees play an important role in the development of professional practice, higher education and interaction with Industry.

I would like also to express my gratitude to the Organizing Committees, Advisory Committees and Regional Vice Presidents for their devotion and taking such active roles in organizing the upcoming regional conferences:

- XIII Pan-American Conference on Soil Mechanics and Geotechnical Engineering, 16-20 July 2007, Isla Margarita(Venezuela)
- XIV European Conference on Soil Mechanics and Geotechnical Engineering, 24-27 September 2007, Madrid (Spain)
- X ANZ Conference on Geomechanics, 21-24 October 2007, Brisbane (Australia)
- XIV African Regional Conference on Soil Mechanics and Geotechnical Engineering, 26-30 November 2007, Yaoundé(Cameroon)
- XIII Asian Regional Conference on Soil Mechanics and Geotechnical Engineering, 10-14 December 2007, Kolkata (India)

I would like to stress my pleasure at the interaction, and the opportunity to implement in these Conferences a better co-operation with Industry and young geotechnical engineers.

I would like also to stress the enthusiastic spirit and close co-operation between the Organizing Committee and Advisory Committee of the XVII International Conference on Soil Mechanics and Geotechnical Engineering, 5-9 October, 2009, and the new format of the technical programme, devised to make the conference more attractive to both academics and practioners. The next international conference in the historic city of Alexandria promises to be a great success.

In our common goal to build a new ISSMGE, providing a space of co-operation and solidarity, emphasizing the core values of liberty, generosity, respect, initiative, creativity and mutual support, I strongly believe that this Bulletin will certainly become a vehicle for a better approach and interaction among all ISSMGE members.

In the ISSMGE official languages I should like to recall the following memorable lines:
"C'est un grand ouvrier de miracles que l'esprit humain» (Montaigne)
"The intellect of man is forced to choose perfection of the life or of the work" (W.B. Yeats, The Choice).
This is the time of confidence, the time to face new challenges and also the time for higher ambition to serve better ISSMGE.

Thank you very much for your kind attention and co-operation.

Pedro Sêco e Pinto
ISSMGE President

View of Young Geotechnical Engineers

The International Young Geotechnical Engineer Conference (iYGEC) is an official conference, which has been held under the auspices of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE). The aim of the conference is to encourage the young geotechnical engineers to develop a broader scope in geotechnical engineering than the conventional one. This is because the world is now faced by new important problems as those related with environmental issues, mega cities, food and energy supply. The first conference took place in Southampton, U.K. in 2000 and was followed by Constanza-Mamaia of Romania in 2003. The 3rd iYGEC was recently held in Osaka, Japan from the 12th – 16th of September 2005 and was sponsored by the ISSMGE and the Japanese Geotechnical Society (JGS). The 88 attendees of iYGEC who are 35 years old or less were chosen from 45 countries with usually 2 delegates coming from each country. All delegates were divided into four groups in which research topics would fall into three themes: environment & disaster prevention, frontiers in geotechnical engineering and engineering practice. By the third day of the conference each group prepared a summary on the common issue that came from their presentations and put forward proposals for the future of geotechnical engineering to the delegates of the 16th International Conference on Soil Mechanics and Geotechnical Engineering. In additional to the seminars a technical visit was made to a subway construction site in the heart of Osaka's business district. On the social side, the iYGEC was concluded in the evening on the fourth day with a farewell party, which had been organized with an impressive mouth-watering selection of Japanese cuisine.

The delegates wish to express their commitment to face the challenges of the 21st century, which are numerous and varied. Challenges such as the rapid increase in population, demands for future provision of infrastructure, major natural disasters, and the need to protect and improve our environment have strained resources and increased social problems. The participants of the 3rd iYGEC present the following Appeals to the international geotechnical community:

A. Worldwide, the volume of information relevant to geotechnical engineers is enormous, and yet much of this information is out of reach or difficult to access, especially for those in developing nations. The following are suggested to resolve this situation:
    a. Consolidate information into international database- including journals, conference proceedings, past and present research, laboratory methods, data, practical guidelines, project experience, and government sponsored reports.
    b. Reduce and ultimately remove the linguistic and financial barriers to obtaining this information.
B. Promote interdisciplinary collaboration and improve communication between academics and practitioners.
C. The quantity of site investigation, instrumentation, laboratory testing and experimental wore is constantly being influenced by political and financial constrains. We should continue to resist this trend.
D. Reach out to international, national and local media and policy-makers. Promote the important contribution of geotechnical engineering and raise the profile and standing of the profession in society.
E. Provide developing nations with engineering assistance, support and solutions that are sustainable at the local level. Create research partnerships between developed and developing countries to solve regional problems in a locally achievable manner.
F. Encourage the development of open-source engineering software applications, to be distributed via international database.
G. The knowledge and experience of our senior colleagues is invaluable. Experienced engineers should be encouraged to pass their knowledge to the next generation of engineers.
H. Encourage every engineer to provide feedback from project experience to the geotechnical communication.

Edited from the Report by Keith Emmett, Sheffield University and Kenny Sorensen, University College London and from the paper by I.Tawhata, University of Tokyo

TC Activity

TC 2: Physical Modelling in Geotechnics

Physical modelling has provided many opportunities for validating theories proposed to describe processes and mechanisms in soil mechanics. Experiments have included 1g lab-floor tests as well as those carried out in pressure chambers, on shaking tables and in geotechnical centrifuges. In consequence, TC2 was one of the first ISSMGE TCs formed (1981) and has now boasted the 6th such specialty conference, held under its aegis.

The 6th International Conference in Physical Modelling in Geotechnics' took place in August 2006 in Hong Kong at the HKUST under the leadership of TC2 core member and former Secretary Prof. Charles Ng. 320 participants from 31 member societies took part in the proceedings that lasted 3 days. These have been recorded within the printed and electronic proceedings [1]. 342 abstracts were submitted and, after a reviewing process, 229 papers were accepted together with 8 keynote and 1 state-of-the-art paper.

[1] Physical Modelling in Geotechnics - 6th ICPMG '06. 2006 Eds C.W.W. Ng, L.M. Zhang, Y.H. Wang. Vols. 1 & 2. 1608 pp. Taylor & Francis. ISBN 10 Set: 0-415-41586-1

TC2 will be present at the following conferences & workshops in 2007 & 2008:
- ISOPE07 in Lisbon, 1-6 July 2007, www.isope.org
- XIV ECSMFE "Spirit of Krebs Ovesen session - challenges in geotechnical engineering", in Madrid, 23 Sept 2007
- 13 ARC 2007: special session: "Physical modelling for infra-structure development", Kolkata, India, 12 Dec 2007
- Eurofuge 2008, at City University in London, May 2008
- Universidad de los Andes: Mid July 2007, contact Dr Bernardo Caicedo
- IIT Bombay, India: December 2007, contact Dr BVS Viswanathan

TC2 has set ambitious goals for the working groups (more details on http://www.tc2.civil.uwa.edu.au)

Data exchange and archiving: *Paul Schaminée*, Bruce Kutter, Paul van Laak, Christophe Gaudin
- To establish standards for saving, exchanging and archiving model test data, to allow easy viewing, manipulation and comparison of test data within the physical modelling community and users, to allow sharing of post-processing software within and between institutes based on data archived in a standard form.
- A standard format for storage and archiving model test data will be adopted, supported by a manual and appropriate software to facilitate to use of this standard – both storage and post-processing, which will be disseminated via the web.
- To work toward establishment and adoption of standards for saving, exchanging and archiving model test data, to allow easy viewing, manipulation and comparison of test data within the physical modeling community and users, to allow sharing of post-processing software within and between institutes based on data archived in a standard form.

Industry liaison: *Christophe Gaudin*, Ryan Phillips, Adam Bezuijen, Jacques Garnier, Jan Laue, Dave White
- To create and enhance industry-awareness of geotechnical physical modelling, to define standard procedures, levels of reporting and thresholds for data quality appropriate for model testing, to aid specification of testing.
- A short guide to physical modelling will be prepared to introduce potential industry users to the potential and track record of geotechnical physical modelling and circulated to a group of (potential) users in industry, linked by a loose 'user group'.
- A set of guidelines and standards for specifying model test procedures and data quality will be published on the TC2 website.

Publications: *Jiro Takemura*, Andrew McNamara, Colin Leung, Osamu Kusakabe, Luc Thorel, Christophe Gaudin
- To maintain an up-to-date searchable database of literature related to physical modelling (building on the existing Cleopatre database held at LCPC), as well as a searchable web-based database of geotechnical physical modelling publications.
- To continue to support the International Journal of Physical Modelling in Geotechnics.

Scaling laws: *Ryan Phillips*, Jacques Garnier, Christophe Gaudin, Johnny Cheuk, Bruce Kutter, Trish Culligan, BVS Viswanathan, Jan Laue, Vincenzo Fioravante
- To create a reference(s) that describes the state-of-the-art understanding of the scaling laws in physical modelling, to assist researchers and practitioners conducting and interpreting physical modelling data and published in the IJPMG.

Teaching: *Gopal Madabhushi*, Charles Hird, Sarah Springman, Dave White, Charles Ng, Bernardo Caicedo
- To spread good practice of physical modelling in teaching, to compile relevant teaching materials for (i) undergraduate teaching, (ii) industry / postgraduate student / 'masterclass' on physical modelling, to collate links on the TC2 website.
- To promote educational as well as active industrial participation, active tele-participation of audiences during live tests at participating physical modelling centres.

Reported by Sarah Springman, Chair TC2 "Physical Modelling in Geotechnics".

Activity of Member

The Japanese Geotechnical Society

The Japanese Geotechnical Society (JGS) was established in 1949 with 122 members and joined the international society in the next year. As of December, 2006, JGS has about 13,000 members as summarized in the table below. Its organization consists of a board of directors, eight departments, nine domestic branches, and an administrative division.

Membership status	Individual	Corporate	Student
International	1,358	49	-
Domestic	10,153	1,159	903
Emeritus	110	-	-

The new building of the JGS Headquarters

Japanese traditional play as an attraction during the banquet of 41st National Conference

JGS holds a four-day national conference on geotechnical engineering every year. The 41st conference held in 2006 attracted about 2,000 participants with 1,200 oral presentations. JGS has also enjoyed the honor of hosting two International Conferences on Soil Mechanics and Geotechnical Engineering in 1977 and 2005, two Asian Regional Conferences in 1963 and 1987, and a number of International Symposiums and Workshops.

In order to support the activities of technical committees of ISSMGE (TCs) and its Asian region (ATCs), JGS organizes and operates domestic committees. Their current list is shown in the table below.

ISSMGE technical committees		Chairperson and memberships of corresponding JGS domestic committees
TC3	Geotechnics of Pavements	Yoshida, N. (Kobe Univ.) and 15 members
TC4	Earthquake Geotechnical Engineering and Associated Problems	Kokusyo, T. (Chuo Univ.) and 22 members
TC23	Limit State Design in Geotechnical Engineering	Honjo, Y. (Gifu Univ.) and 23 members
TC29	Laboratory Stress Strain Strength Testing of Geomaterials	Shimura, S. (Kobe Univ.) and 13 members
TC34	Prediction and Simulation Methods in Geomechanics	Oka, F. (Kyoto Univ.) and 28 members
TC35	Geo-Mechanics from Micro to Macro	Hyodo, M. (Yamaguchi Univ.) and 17 members
ATC3	Geotechnology for Natural Hazard	Yasuda, S. (Tokyo Denki Univ.) and 26 members
ATC8	Groundwater Environment and Quality Management	Nishigaki, M. (Okayama Univ.) and 12 members
ATC10	Urban Geo-Informatics	Todo, H. (Kiso-jiban Consultants Co.,Ltd.) and 15 members
ATC17	Waste Management in Geo-Environmental Engineering	Kamon, M. (Kyoto Univ.) and 15 members

JGS publishes two periodicals. One is "Tsuchi to Kiso", a monthly journal in Japanese, first issued in 1953 and distributed to each member. The other is "Soils and Foundations", currently a bi-monthly technical journal in English, first issued in 1960, and distributed to all over the world. In 2006, JGS started to issue “Japanese Geotechnical Journal” as well, an on-line technical journal in Japanese. Among other activities, JGS has developed and published a series of technical standards on laboratory soil testing, site investigation and geotechnical design and construction. Some of them are available in English. JGS is also acting as a participating member for ISO/TCs 182, 190 and 221.

For further information, please visit the following web site: http://www.jiban.or.jp/e/e-top.htm

Reminiscences

The Past President- Prof. Masami Fukuoka

Interviewer: Prof. Osamu Kusakabe and Dr.Pongsakorn Punrattanasin

Date: December 2, 2006 (14:00-17:00)

Place: President's Room, the Japanese Geotechnical Society

His personal history: Born in 1917. Graduated from Civil Engineering Department, University of Tokyo in 1941. Entered Public Works Research Institute, Ministry of the Interior in the same year as a civil engineer. Made a first report at the 3rd International Conference on Soil Mechanics and Foundation Engineering in 1953. Director of the Public Works Research Institute, Ministry of the Construction (1967–1970). Professor at University of Tokyo (1971–1977). President of the International Society for Soil Mechanics and Foundation Engineering (1977-1981). Professor at Science University of Tokyo (1977-1997). President *of Public Works Research Center (1989-1993).*

Q: Thank you very much for your sparing your important time for this interview. I heard you will be ninety years old next year, but you always look so young. May I ask how you keep fit?

A: My three fundamental principles for a good health are to have good sleep, good meals and regular motions. I cook my own meals considering about good balance of nutrition and I chew well. Of course I don't drink nor smoke. And I try to do moderate exercise and take a good walk. I get up at 6 o'clock and do some navy exercise and yoga for about 10 minutes and hang from a bar. I walk for 4 km with singing and carrying a 3 kg heavy bag everyday one time each in the morning and in the afternoon. Walking is very important for maintenance of thinking power. I used to take a cold bath until a short time ago because I heard from Prof. Prakash that if we make our skin stronger, then the organs become strong. I go to bed at 9 o'clock. When I was a junior high school student, I went to school by bike all the way of 16 km. In high school, I was a swimming champion. I also played rugby and tennis. In my 40s and 50s, I played golf in the early morning approximately 120 days a year.

Prof.Fukuoka is showing his calisthenics

Q: Today, I would like to hear your story when you were in the office of president of ISSMFE for the first half part of this interview, then I would like to hear your ideas about the present and the future of the geotechnical society. To begin with, would you please talk about the story when you invited, held and managed the conference of the International Society for Soil Mechanics and Foundation Engineering in 1977for the first time in Asia.

A: The decision to invite the conference was made at the Executive Committee Meeting of the 8th International Conference of Soil Mechanics and Foundation Engineering in Moscow. At that time, Germany also ran as a candidate, but partly because of the excellent speech by Prof. Yoshimi, Tokyo won by voting. At that time, there was a collateral condition to enable people to enter Japan from any country. The target countries were Israel, South Africa, Mainland China and Taiwan. In those days, the Japanese government did not issue visas for culture and sports for South Africa, because of their apartheid policy. At the Executive Committee Meeting in Istanbul, however, a motion was made by a representative from the USA that the President was requested to cancel the Tokyo Conference unless the issue had been resolved in three months, and as a matter of fact, there was a crisis that the Tokyo conference might not have been held.

Reminiscences (continued)

The Past President- Prof. Masami Fukuoka

I went to the Japanese Ministry of Foreign Affairs together with Prof.Nash, Secretary General, who had a close relationship with South Africa and asked for visa issuance permission for culture, but the Section Manager, who was well-versed in British affairs, would not give way. Nash thought that the Tokyo Conference should be cancelled. Then I made a lot of efforts to make him understand the importance of soil mechanics and foundation engineering by taking him to the site of the diaphragm wall construction and so on, and then he finally gave us his consent that issuing a business visa would be OK. That's how Prof. Blight, Representative of South Africa, could come to Japan.

Concerning the issue of two Chinas, two men from Chinese Embassy visited me at my laboratory in the University of Tokyo, and told me in fluent Japanese that they would not send a participant if we received anyone from Taiwan. I told them that even if we saw a participant's face or heard his name, non-Chinese people including Japanese could not tell whether he was from Mainland China or Taiwan, and we prepared a special site visit for the participants from Taiwan.

For the participants in the conference, I met each delegate from overseas at the Haneda Airport so that they would not have trouble in Japan, where English is not well understood. Meanwhile there was a happening that Nash, Secretary General, left a bag which had all the Executive Committee Meeting documents in it at customs of Haneda Airport, and we had to return to get it back in the rain.

It is costly to run a conference. It was just after the oil shock, so we had a difficulty in collecting contributions. First I asked President Togashi of the Honshu Shikoku Bridge Authority to assume the office of Chair of the Local Organizing Committee, and paved the way for making a request for contribution. Japan Federation of Construction Contractors offered cooperation for me. Since I had once worked as a member of Mizushima Accident Investigation Board, Petroleum Association of Japan offered cooperation for me. Also, Prof. Okumura of the University of Tokyo, who was one of my classmates, worked to make Science Council of Japan co-host the conference. Consequently, the conference had a great success and we had 100 million yen surplus. It enabled me to use the money to publish a volume of case history after negotiation with the Ministry of Finance.

Q: Thank you very much. I could understand well that the conference was held overcoming various troubles and obstacles. You were elected as the president of the International Society at the Executive Committee Meeting of Tokyo Conference for the first time from Asia. Would you please tell me about it?

A: At the Moscow conference, President Peck was succeeded by President Kerisel without an opposing candidate. In the case of International Society for Soil Mechanics and Foundation Engineering, all the presidents were selected without voting since the first President Terzaghi. At the Tokyo conference, we had the first election for the president for the first time in its history. The three persons who recommended me for the presidency were Prof. Lysmer of the USA, who once stayed at the University of Tokyo, Prof. Sowers, Representative of the USA for the Executive Committee Meeting at Istanbul, and Prof. Hilf who had been friends since the establishment of the Japan-USA Natural Resource Panel which I established when I was the Director of the Public Works Research Institute. I once wrote a letter of apology saying that my English was so poor in reply to the first recommendation letter. I received a request again from President Lee of the American Society at that time, saying that poor English was not a good reason to decline their recommendation. Then, I talked with my wife, but she did not object, so I consulted the International Affairs Committee of the Japanese Society of Soil Mechanics and Foundation Engineering. Prof. Mogami and Prof. Yoshimi expressed favorable opinions, and President Gotoh at that time decided to accept the request. Then I sent my CV which was touched up by Prof. Silver who was visiting the University of Tokyo at that time to the USA, and the American Society circulated a letter of recommendation to the other member societies.

Reminiscences (continued)

The Past President- Prof. Masami Fukuoka

Eventually there were eight candidates who ran for the presidency and the election was a severe fight. The election system was the way to delete one candidate at one election, and at the 5th election there were three candidates left. At that time, Prof. V.F.B. de Mello (Brazil) got 21, I got 13 and Prof. Kezdi got 11. And at the 6th and the last election I won by one-vote difference. At that time of the Cold War between the East and the West, both the East and the West voted for me.

Q: It was such a dramatic victory. As I was there at the Executive Committee Meeting working for operating microphones, I remember so well the excitement of that time. The presidency of an international society is a heavy responsibility. Would you please tell me a few stories when you were President?

A: The President and the Secretary General must cooperate to work together to run an International Conference. At the first meeting with Nash after I became president, I said to him, "In Japan we have an expression of heart-to-heart communication. As I am not so good in English, I would like to go ahead in cooperation with you with this spirit of hear-to-heart communication". Then Nash said, "At the time of President J. Kerisel of France, I used to go to take French lessons. We can communicate with each other well enough in broken English." Actually a lot of people helped me in terms of language. For example, Prof. Gibson, who had been friends since he worked under the direction of Dr.Cooling, kindly edited my speech manuscript for the Stockholm conference.

Nash was such an efficient person that he drew up the minutes during the meeting and Ms. Brown, Secretary, typed the minutes immediately after the meeting, then the completed minutes were circulated to all the attendees for their confirmation, the President signed them and that's all. However, there was a backlash against his way of running a committee where he did not accept any statement unless it was based on the past minutes. At the same time, there was a lot of criticism against Nash because he used half of the income of the society. Especially, Australasia responded strongly against him and because of that Nash could not attend a regional meeting in Australasia.

There were serious clashes of opinions about the management policy for the society between Nash and me. I had declared my policy to place emphasis on TC activities and thought about establishing TCs on centrifuge, landslides and constitutive equation. But Nash was against it. I included an item on the TC establishment in the agenda for the Executive Committee Meeting in the Stockholm Conference. But Nash suddenly died just before the conference, then strong opponents disappeared and TCs were established. The president had full authority to decide establishment, modification and abolishment of TCs. Nash was very cooperative to adopt my field-oriented approach for International Conference sessions. I believed that, though we had only presentations of papers in International Conferences to prove that there was no discrepancy between the theory and the experiment result. It is very important to find out a difference between theory and actual measurement at the site and conduct a thorough investigation to identify the cause. So I published volumes of case history after the Tokyo Conference. When Nash and I were invited to Prof. Hansbo's home and had a discussion about the session program structure for the Stockholm Conference among three of us, Prof. Hansbo and I had a conflict where I advocated the theme of practical case history, whereas Prof. Hansbo advocated the theme of preservation of historical buildings. Then Nash proposed a session name of "Prediction & Performance" as a compromise.

As I said before, Prof.Nash was an extraordinarily capable person and he really worked hard in accordance with my intention for the smooth management of the society. However, he unfortunately passed away just before the Stockholm Conference. Prof. Burland kindly took over the responsibility and we could have the Conference successfully ended, for which I deeply appreciate. At the same time, it is my greatest pleasure that the Kevin Nash Gold Medal was established at the Conference.

Q: Thank you very much. I understood that there were exciting human dramas behind the management of International Conferences. Next, please tell us what you achieved as a president of the International Society.

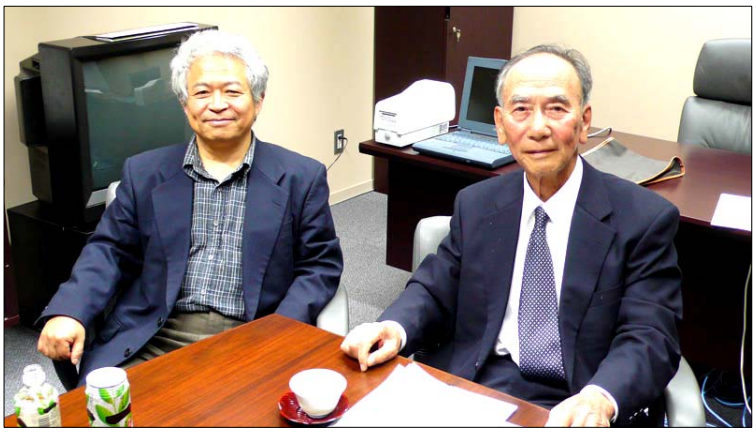
A: My basic policy for leading the society was as follows: "Soil mechanics and foundation engineering is an immature discipline. All of us have to cooperate to find out problems and solve them. There are regional meetings and symposiums besides the main conference itself. We have to submit an honest paper and discuss in a sincere manner to address the problems. We have to accept criticism for the result and carry on the research. We have to introduce the research outcomes to other people in an easy-to-understand manner. Then we put it into practical use. We use it on an actual site and disclose the outcomes. We must not take an attitude that we use a high-level theoretical computation and a complicated laboratory testing method and that we monopolize the outcomes without informing it to other people. When we release the information to the public and make it useful, for the first time it can be called a technology. Devices to be used for experiments, analysis programs, field measurement equipment are meaningful for the first time when they are available to anybody. Standard tests, computation input and models must be used commonly.

Reminiscences (continued)

The Past President- Prof. Masami Fukuoka

Even when the result of a conventional testing method is not well understood mechanically, it can be used as a kind of index for engineering judgment. A method for engineering judgment is worth being reported". During the four year period of my presidency, I worked on emphasis on practicality, emphasis on regional conferences, activating TCs, establishment of management system, sound finance and maintaining two official languages system of English and French. Also I think I can add the success of the Stockholm Conference.

Concerning the emphasis of practicality, it was reflected, as I mentioned before, on publishing a volume of case history after the Tokyo Conference, and also I made a session named Prediction & Performance at the following conference. In order to emphasize the importance of regional conferences, when I was the president, I supported them by attending all the regional conferences in six regions starting with Danube meeting in Czechoslovakia. Regarding TC, I mentioned before. As a management system, I changed it from the system by executive committee, whose meetings had been held irregularly, to the system by steering committee, whose meetings were held once a year regularly. This system was renamed "Board" at the time of the next president de Mello, and ever since has been handed down to the present management system. I tried to make efficient use of membership dues and keep sound finance. Once at the Executive Committee Meeting, a proposal was made from Finland to have only one official language of English instead of having two official languages of English and French. But I sustained the two official languages. One of the reason was I placed high evaluation on the originality of papers written in French.



Professor Osamu Kusakabe and Professor Masami Fukuoka at the Japanese Geotechnical Society

Q: I understood well that you worked on various things and ensured the basis of the present International Society. At the end of the first half part, please tell us the things you cannot forget as the president of the International Society.

A: The first thing is that I was able to meet the people all over the world. Especially, though it was the time of the Cold War, the West and the East got along with each other well, and that is a nice memory. It was really impressive that I was invited to Czechoslovakia, which was part of the communist block, for the first time after I was elected as a president. The regional conferece in Ghana was also very impressive. I went to the Embassy of Ghana in Tokyo to get a visa, but it was not easy. But when I referred to Mr. Degraft Johnson, who was the Vice President of Ghana and the Vice President for African Region, suddenly it expedited everything and I was able to obtain a visa. Also, in Ghana, Mr. Johnson came to the airport to meet me and I was invited to his house. I was given a big welcome with the presence of Ghana President there.

Q: Now, as the last part, I would like to ask your ideas about the present and the future. It was in 1977 that you became the President of the International Society. Now that 30 years have passed since then, what part in the geotechnical field do you find has made progress the most compared with those days?

A: In the first place, computers have come to be used for analysis and designs in practice. Dynamic analysis using FEM is a good example. At the same time, electric and electronic technology has come to be applied for instrumentation. Thereby it has become possible for us to have predictions of phenomena while we are monitoring and analyzing during the construction. As individual technologies, soil improvement technology, seismic engineering, reclamation and man-made island construction technology, and the field of shield tunnel made remarkable progress, I think.

Reminiscences (continued)

The Past President- Prof. Masami Fukuoka

Q: What academic and technology fields in geotechnical engineering are most needed presently in your opinion? What the International Society should do for the purpose of developing technology fields?

A: Various geotechnical problems cannot be resolved by the geotechnical engineering field alone, or progress of geotechnical engineering and technology cannot be made by the geotechnical engineering and technology field alone either. We need to watch academic and technical progress of other fields all the time. Looking back to the past examples, FEM was what we introduced from the structural engineering field. The International Society should be more active to introduce new technologies. Especially, we need to be more positive to introduce new construction machines and chemical materials and it is important to make requests to the relevant technical fields telling what kind of construction machine and chemical materials are needed. For this purpose, education is important. New ideas are always created by young people.

Q: Do you have any opinions about how to improve the current university education?

A: It is important to teach the basics. A student who cannot understand mechanics cannot understand soil mechanics. At the same time, you cannot give good education if you do not know the construction practice. In the universities, it seems that professors exist first and then lectures are decided by the professors. Professors need to understand the practice well.

Q: These days, a gap between academic progress and on-site technology is often referred to. Do you have any ideas about the measures to make the two closer?

A: In a model experiment, we should use a model as large as prototype, or if possible, we should experiment with an actual structure. Halfway model experiments may give good exercise for researchers' brains, but you cannot expect more than that. I have made some experiments on actual river banks. My papers for the Montreal International Conference and for the Asian Regional Conference in India were about them. At present, I think that there are too many technical codes. Especially, I am afraid that ISO codes have gone too far. I believe that engineers should, not only design and construct just in line with the codes, but also consider on a case-by-case basis according to the actual site.

Also, you cannot cope with the problems at the site appropriately if you only know soil mechanics or geotechnical engineering. Besides, you have to know other technologies needed at the site. Pertaining to the laboratory test methods, a new method must be developed so that we can have the same outcome if it is done by anyone utilizing the comparative tests. As to how the comparative test should be, I once had an argument with Prof. Peck. I think we should make more use of the latest remote sensing technology. Although a lot of papers are presently published, since practical engineers who work at the sites are so busy, it is expected that collected papers published by researchers should have a function to wrap up the essence of the research outcomes to instruct how the paper can be useful from a viewpoint of practitioners. On the other hand, it is necessary to have collaborative work where a practitioner provides the field data to a researcher and the researcher publishes it as an academic achievement co-authored by the practitioner in order to unite the practitioners' experiences and academic advancement. I have an experience that I felt sorry when I published the field data of the earth pressure of the reverse T-shape retaining wall and of the retaining wall reinforced by geotextile, which I myself collected, there was no response from researchers. The collaborations and exchanges between practitioners and researchers are very important.

Q: Lastly, would you please say a word to the members of the International Society?

A: We have a lot of subjects to research. I hope that each of the members should be conscious of being a member of the society, and not only try to receive benefits from the society and use its function, but also try to give benefits to others and participate in the activities of the society.

The past president, Prof. Fukuoka told us about a large number of stories with some references and the interview went on for three hours. We were thankful to his enthusiastic attitude and also overwhelmed by his extraordinary large-scale human network, power of memory, and wealth of experiences and wisdom. The interviewers hope that the readers enjoy reading Prof.Fukuoka's stories and learning his thoughts.

Due to page limitation, some of the interesting stories had to be edited or omitted in this written version. The interviewers have full responsibility for it. Ms. Emiko Serino kindly helped us for translating from Japanese version to English.

Osamu Kusakabe & Pongsakorn Punrattanasin

Case History: A Submerged Embankment on Soft Soil

By William Van Impe

Introduction

The need for more dredged material storage capacity has encouraged the design and currently ongoing construction of a partially submerged embankment, with an approximate height of 27m, to divide an existing dock (Doel) and to use the available space behind the embankment to deposit dredged material (Fig. 1). The challenge of this project was the fact that the embankment had to be built on a very soft soil deposit (not removable because of geoenvironmental considerations) which is the result of years of sedimentation and self-weight consolidation.

The abandoned dock has a water depth of 20 m (TAW +4.0 m to TAW –16 m; TAW is the official Belgium levelling datum) and has a width at water surface of approximately 550 m. The underwater dredged sludge storage cells were deepened in the bottom and have an approximate depth of 8 m (TAW -16.0 m to TAW –24.0 m). Below the bottom of the cells, a thin layer of sand remains on top of a stiff highly overconsolidated tertiary clay (the Boom Clay). The sand layer remaining between the slurry and the stiff clay is partly disturbed from dredging operations.

The bearing capacity and shear strength of the stiff overconsolidated clay is well known: these deposits were loaded in past times with approximately 150 m of soil. Shear strength characteristics are estimated at φ'=23° and c'=24 kPa while c_u=100 kPa to 150 kPa. CPT cone resistance values q_c are between 4 MPa and 6 MPa in this material. Thickness of this clay deposit is larger than 50 m. The sand layer on top of the clay is also a tertiary deposit of glauconitic sand of which the shear strength characteristics were estimated at φ' = 33° and c' = 0 kPa. q_c varies between 15 MPa and 30 MPa. Thickness of this layer varies between 0.5 m and 2.0 m. From these figures it is clear that the main problem for the construction of the embankment is the very soft slurry deposit in the underwater cells that were realized during the past decade. The main properties of this soft soil at the construction site are given in Table 1.

Table 1: Main classification parameters of the soft layer

Bulk density	12,8 kN/m³
Natural water content w_n	185.0 %
Liquid Limit w_L	124.4 %
Plastic Limit w_P	46.7 %
Plasitcity index I_p	77.7 %
Organic content	6 %
Carbonates content	13,9 %
Clay fraction	40 %
Silt fraction	50 %
Sand fraction	10%

Considerations on the analysis and construction

The sand used for the construction of the embankment was mainly obtained from excavation works and residues of the simultaneous construction of a dock nearby. The sand was selected on the basis of its grain size distribution and fines content so that optimum results of density and strength are obtained after hydraulic placement. Up to now, about 80% of the total height of the embankment has been reached and regular quality control by means of CPT has confirmed the suitability of this material.

From table 1, it can be summarized that : the foundation soil of the embankment consists of a 8m layer of soft dredged material overlying a thin layer of sand and a deep layer of Tertiary Boom clay (highly overconsolidated). The soft soil studied here is a soft deposit of fine grained material, result of a prolonged sedimentation and selfweight consolidation process of dregs removed from waterways within the harbor of Antwerp. The consistency of the soil remained quite soft even after attempts of accelerating its consolidation by means of vacuum. The natural water content of the soil was of the order of 115%, the plasticity index of the order of 77 and the organic content of about 6%.

The initial in-situ undrained shear strength (c_u) of this deposit of soft dredged material was estimated by means of extensive laboratory and field testing. In general, the average cu ranges from about 2 to 4 kPa and it was observed to increase linearly with depth suggesting that the deposit is mainly in a normally consolidated state.

The relations required for large strain consolidation behavior analysis (Fig. 2c) of the soft dredged material was assessed by means of Constant Rate of Strain (CRS) tests, hydraulic conductivity tests and oedometer tests. Fig. 2(a, b) summarizes the results of all tests performed. Out of a fitting procedure, two constitutive equations relating hydraulic conductivity (K), void ratio (e) and effective stress (σ'_v) could be obtained

Case History (continued):

A Submerged Embankment on Soft Soil

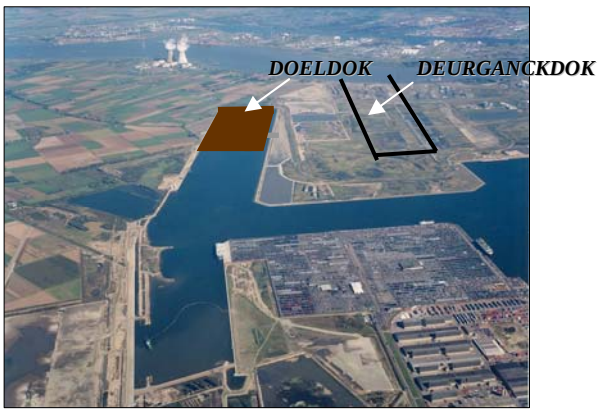


Figure 1a: Aerial view of the site

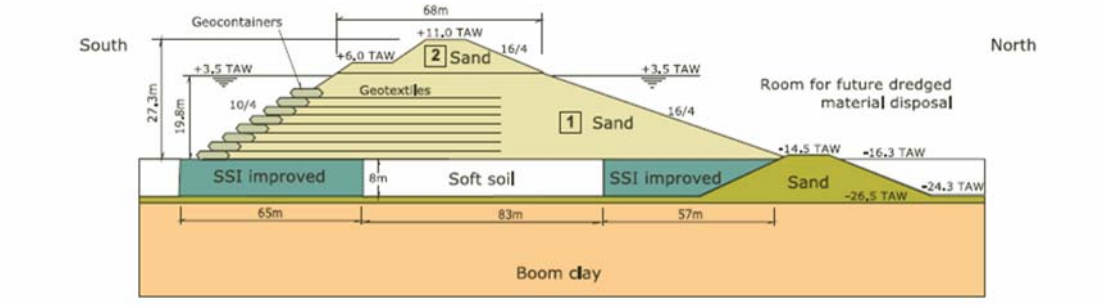


Figure 1b: Scheme of the partially submerged embankment design

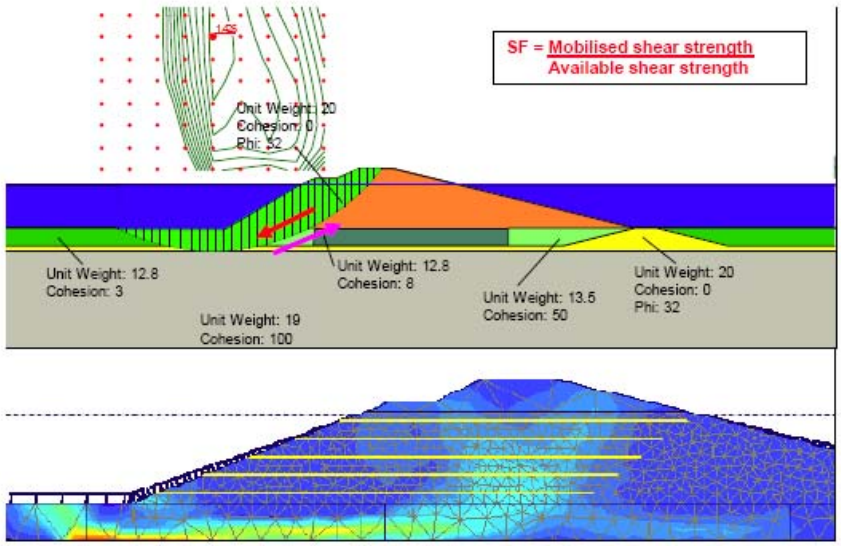


Figure 1c: Simplified models: SLOPE (upper) and PLAXIS (lower)

Case History (continued):
A Submerged Embankment on Soft Soil

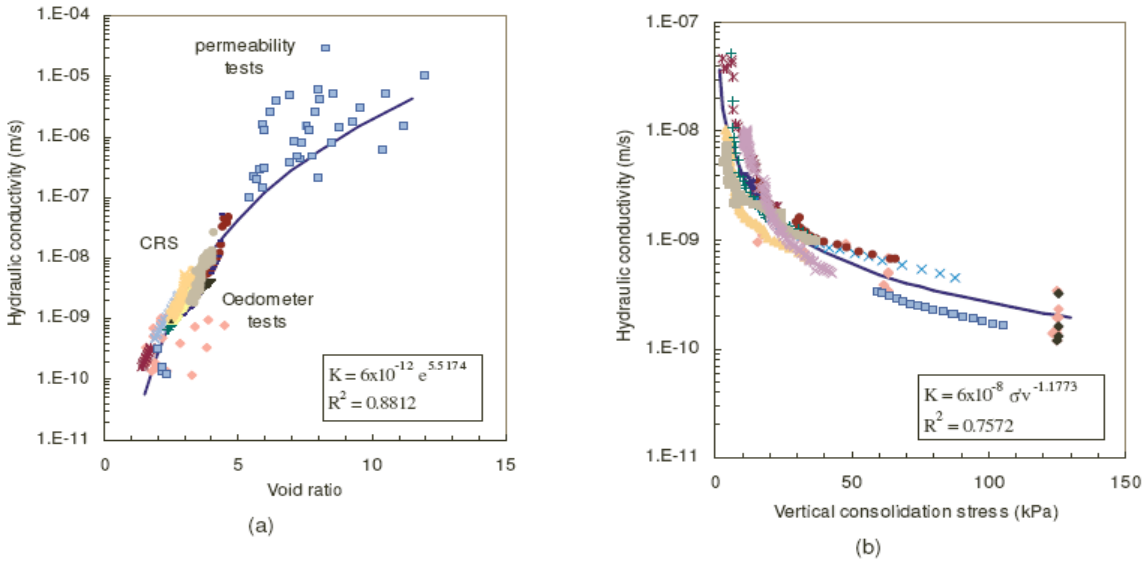


Figure 2 a, b: Consolidation properties of the soft soil

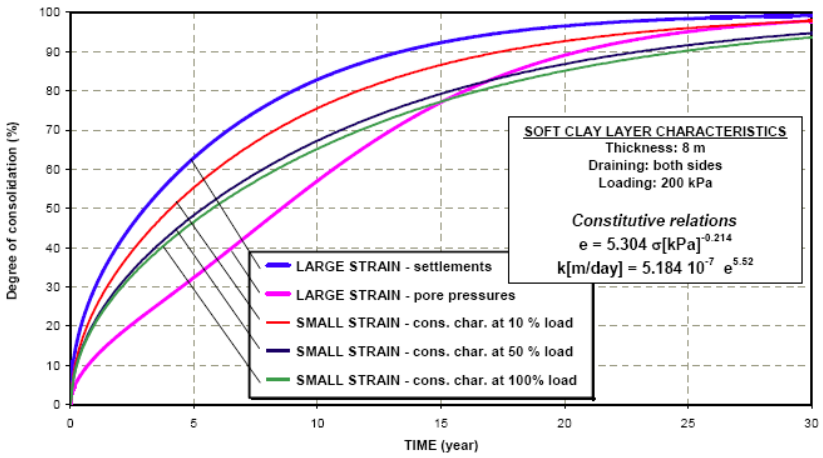


Figure 2c: Average degree of consolidation from settlement and from pore water pressure

The foundation soil (at the toes of the embankment) was improved by implementing a novel deep mixing technique, the SSI (soft soil improvement). The SSI technique could be classified as a wet deep mixing technique as it injects cement slurry. Moreover, it makes use of pressurized mixing by means of a mixing tool provided with 2 sets of nozzles distributed all along the full diameter of the column (Fig. 3). The mixing tool is fixed to a main drilling rod and each set of nozzles is connected to independent injection systems. A high-pressure injection system (of the order of 20 to 30 MPa) cuts the soil and allows for intense mixing while the low pressure injection system (up to 5 MPa) just adds the remaining amount of cement slurry to fulfil the required dosage.

A quite important issue in the design of deep mixing columns is the choice of cement. In order to do that an extensive laboratory research was carried out aiming at evaluating the improvement level of mixes with e.g. Portland cements (binder D, Fig. 5) , Blast furnace cements (binders C and B, Fig. 5) and others (Van Impe & Verástegui, 2006). Out of that research, blast furnace cements were chosen as the most suitable for the improvement of the soft sludge. Blast furnace cement showed a slow but continuous improvement that did not stop even after about 2 years. Blast furnace cements are also known to have a better performance in marine environments, (Figs. 4a, b, c) and fig. 5.

The chosen cement was transformed into a slurry (w/c ratio = 0.8) and injected during downwards and upwards operation of the drilling rod to accomplish a binder dosage of about 275 kg/m3 approximately.

Case History (continued):

A Submerged Embankment on Soft Soil

For this project, the SSI columns are installed in a regular triangular pattern with a soil improvement ratio of approximately 25. The amount of binder added is 275 kg/m³.

A total of 3.100 columns with a diameter of 1.9 m and an average length of 8 m have been executed during the entire project. The project was executed with two drilling towers from a jack-up platform. In order to optimize the column production rates the working platform had been specifically designed with a moon pool to be able to create 22 or 24 columns at one and the same working platform location. State-of-the-art positioning systems ensured that the tower was precisely located at each column position. In Fig. 3b, an overview of the setup (on water and on land) is given.

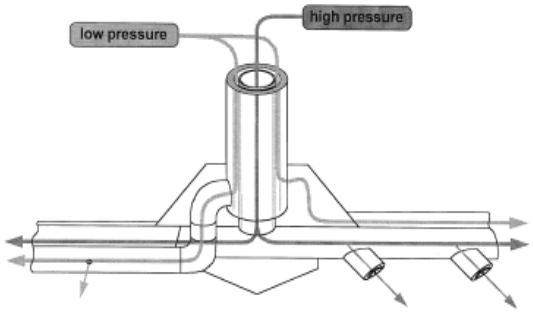


Figure 3a: SSI mixing tool

Figure 3b: The equipment for the stabilisation of the sludge

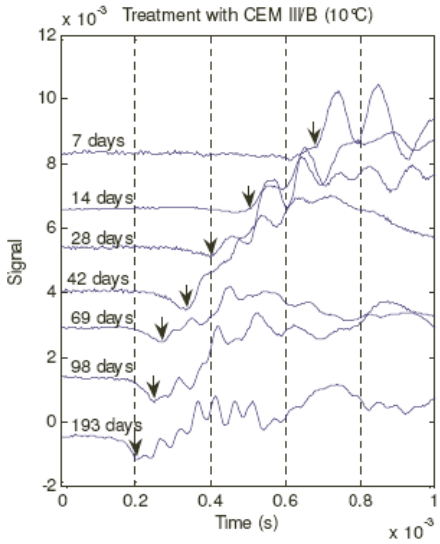


Figure 4a: Shear wave arrival time of specimens treated with CEM III/B and cured underwater at 10°C

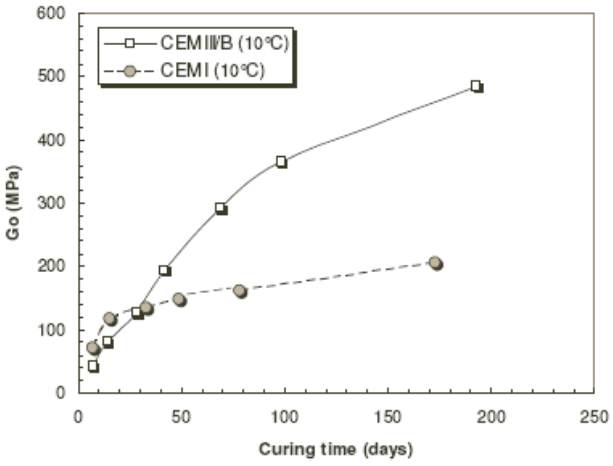


Figure 4b: Development of dynamic shear modulus (G_0) of specimens cured underwater at 10°C

Case History (continued):
A Submerged Embankment on Soft Soil

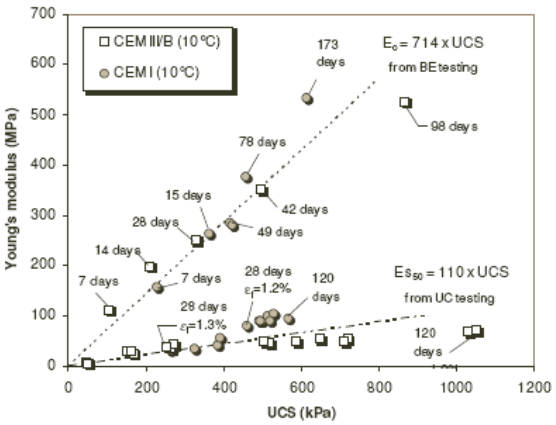
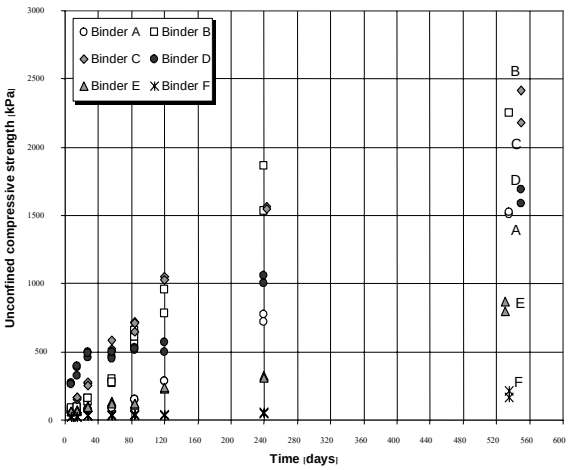


Figure 4c: Young's modulus at small strain levels (E_0) and secant Young's modulus at 50 % of deviatoric stress (E_{s50})



Binders B and C: high slag content blast furnace cement
Binder D: Portland cement

Fig. 5: Unconfined compressive strength vs. time for specimens cured at 10°C in the laboratory.

As shown in figure 1, the embankment consists of a geotextile reinforced sand. Moreover, the geotextiles are anchored in geocontainers (3 m wide, 2 m high and 30 m long). The geocontainers were manufactured on land nearby the dock with a sand-cement mixture. They were transported and installed by means of a floating crane.The geotextiles were fixed to the geocontainers with steel reinforcement bars and then unrolled.

The geocontainers, 3 m width, 2 m high and 30 m length, with a sand-cement mixture are manufactured at a site on land near to the dock. They will be transported into place by means of a floating crane. The geotextile is ballasted with steel reinforcement bars and is rolled up during transport. Unwinding of the geotextile is performed by means of the sand spreader vessel which was specially adapted for this operation. The total length of the geotextiles varies from 105 m in the bottom layer to 65 m in the top layer. The geocontainers have a multiple function: fixation of the geotextile and containment of the sand that will be hydraulically placed behind the container by means of the sand spreader vessel. The containers are used to form the 2.5 by 1 slope. At the other side the slope of 4 by 1 can be realized under water by means of hydraulic filling thanks to the controlled filling procedure with the spreader vessel and the optimum choice of the sand used to build the embankment (Fig. 6).

Figure 6a: Geosynthetics sand bags before installation

Figure 6b: Sand bags at installation on the underwater slope

Case History (continued):

A Submerged Embankment on Soft Soil

The sand is selected on basis of d_{50} and fines content, so as to obtain optimum results when hydraulically placed. The choice of the right sand material for the underwater filling operations is very important so as to be able to guarantee the shear strength characteristics needed for the stability of the embankment itself. Tests have shown that the proposed execution procedure with the selected sand will yield shear strength characteristics assumed in the design stage of φ'>32° and c'=0 kPa, without a need for densification after hydraulic placement.

From the on land temporary realized stock, the material will be brought to a sand pump so as to deliver a continuous flow (approximately 500 m³/h) towards the sand spreader vessel. This vessel has a fall pipe with 12 m wide horizontal spreader beam. With this system, depending on flow rate and dynamic positioning of the vessel, a sand layer with 1 m or less in thickness can be applied. The controlled method of sand deposition is important to guarantee stability of the soft layer during sand spraying. Furthermore, it allows for very precise installation of the sandfill behind the geocontainers. In the zone where the new row of containers has to be placed, levelling of the sand was necessary. Already before the initiation of construction works, instrumentation was placed in the foundation layer to allow the monitoring of excess pore water pressures and vertical displacements under the embankment load. This continuous monitoring was meant to provide a means of following up the behavior of the foundation soil at all times during the construction.

Piezometers (P) were installed mostly at 3 different levels within the foundation layer at several locations as illustrated by the plan view sketch in figure 5. Piezometers in the SSI improved zones were installed between SSI columns. Similarly, flexible tubes (Z1, Z2, Z3 and Z4) filled with water were placed at 4 locations (on top of the foundation layer) across the dock to monitor vertical displacements by measuring hydraulic head changes with respect to a reference level by means of a water pressure probe that is pulled inside the tube along its full length. Measurements of pore water pressure have been automatically and continuously recorded, while measurements of settlement profiles were performed every 2 months approximately, (Fig. 7a).

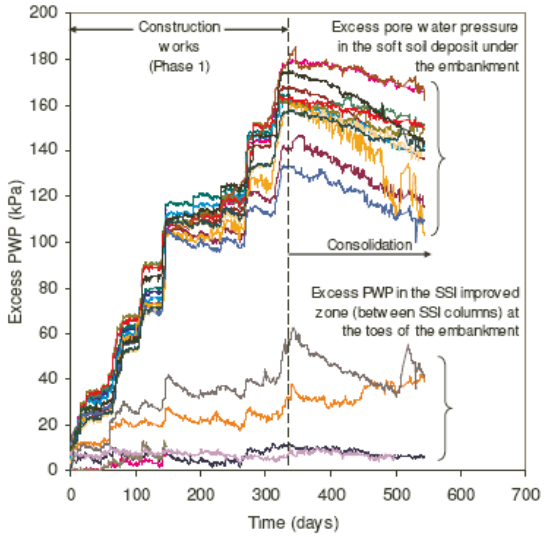


Figure 7a: Excess pore water pressure measurements at various locations under the embankment

Comparing the current measured consolidation degrees with those predicted introducing the large strain theory (Gibson et al., 1967), a good match could be observed. The large strain consolidation theory is a more general theory of onedimensional consolidation. This analysis overcomes the limitations that the conventional, small strain, theory entails; but at the same time the problem becomes so complex that only numerical solutions can be obtained for practical problems. To that end a finite difference based program (Van Impe P.O., 1999) was used to perform calculations.

Quality control of the embankment sand was performed regularly at several stages during the construction by means of CPT tests. Moreover, parameters such as shear angle (φ) and relative density could be estimated to confirm the design requirements. An example of typical CPT profile above the soft soil deposit is given in figure 7b. It can be observed that the cone pressure qc increases linearly with depth and an almost uniform shear angle ranging from 32° to 35° was evaluated. Furthermore, the risk of lique- faction of this hydraulic fill was assessed using the method proposed by Robertson and Wride (1998). For characterizing the local seismicity in the area, an earthquake magnitude of M=5.5 was assumed and a Peak Ground Acceleration (PGA) of 0.05g was obtained from the seismic zonation map of Belgium. Making use of those data a factor of safety (FoS) was evaluated. In all cases FoS against liquefaction ranged from FoS = 2.5 to 6.

Case History (continued):
A Submerged Embankment on Soft Soil

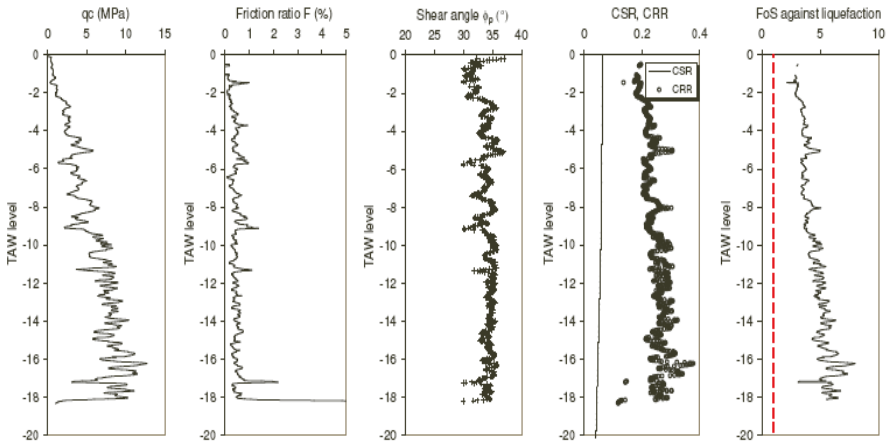


Figure 7b: Some properties of the hydraulically placed embankment sand

Underneath the dam along the width of the dock four settlement tubes are installed. At regular times, all settlement profiles are registered in order to compare with the predicted settlements. In general, the in-situ settlements are larger than those predicted (Fig. 8 and 9). The difference is larger for the measurements located in the area of the SSI-columns. At these locations the measurements do show a lot of peaks, caused by the inhomogeneous soft soil - SSI-column area underneath the tubes. The average settlement is very dependent from the number of local peak values: in case the tube is located on the columns, the average settlement may be low, while in case the tube is located between the columns, the average settlement will be higher. After the first construction phase (layer of 2 m), one can see that a lot of settlement already took place (up to 35 cm). This is probably due to a movement of the settlement profile tube. Based on the settlement curves, calibration of the model is performed starting from the test data on the stiffness modulus and the permeability of the sludge layer.

Lessons learned

The monitoring of the consolidation behavior of a soft foundation soil under a large partially submerged sand embankment has show that the large strain consolidation theory was successful to describe more adequately such behavior. Measurements of settlements and excess pore water pressures showed a good agreement with predictions evaluated using the large strain consolidation theory. On the other hand, the more conventional small strain theory was shown to overestimate the dissipation of pore water pressure and underestimate settlements.

The stiffness at small as well as at larger strain and the strength of cement-treated dredged material was evaluated here by means of bender element tests and unconfined compression at several stages (up to 6 months) during the hardening of the specimens. The results showed a close agreement between the development of G_0 and UCS with time. In Portland cement treated specimens such trend was found linear while in blast furnace cement the trend was more parabolic. Moreover, it was observed that even if the nominal strength of the Portland cement used here (52.5 MPa) was higher than that of the Blast furnace cement (42.5 MPa), the UCS of the cement treated specimens depected a different picture. Blast furnace cement treated specimens show the highest compressive strength.

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Case History (continued):

A Submerged Embankment on Soft Soil

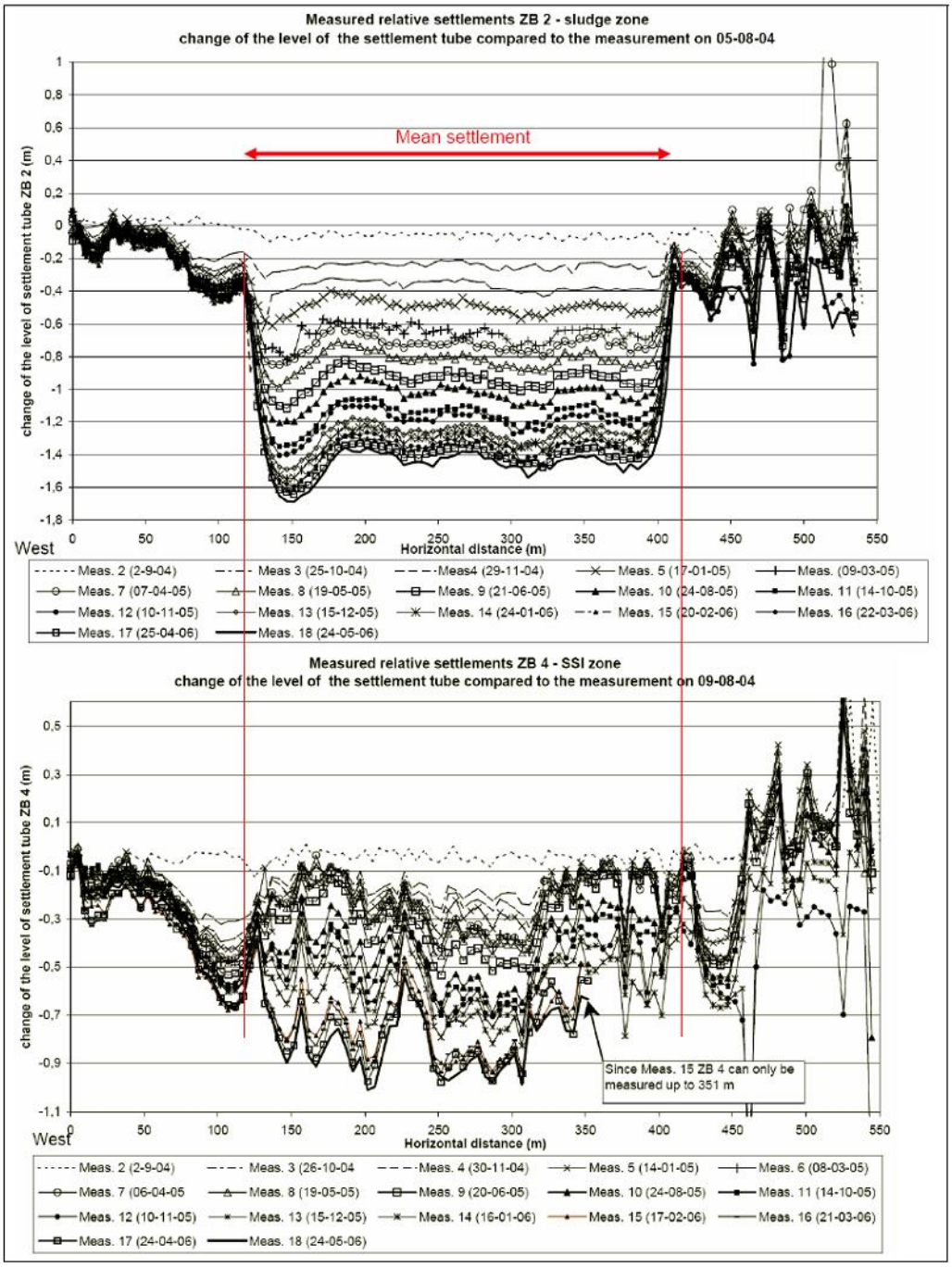

Figure 8: Measured relative settlements ZB2 (sludge zone) and ZB4 (SSI zone)

Case History (continued):
A Submerged Embankment on Soft Soil

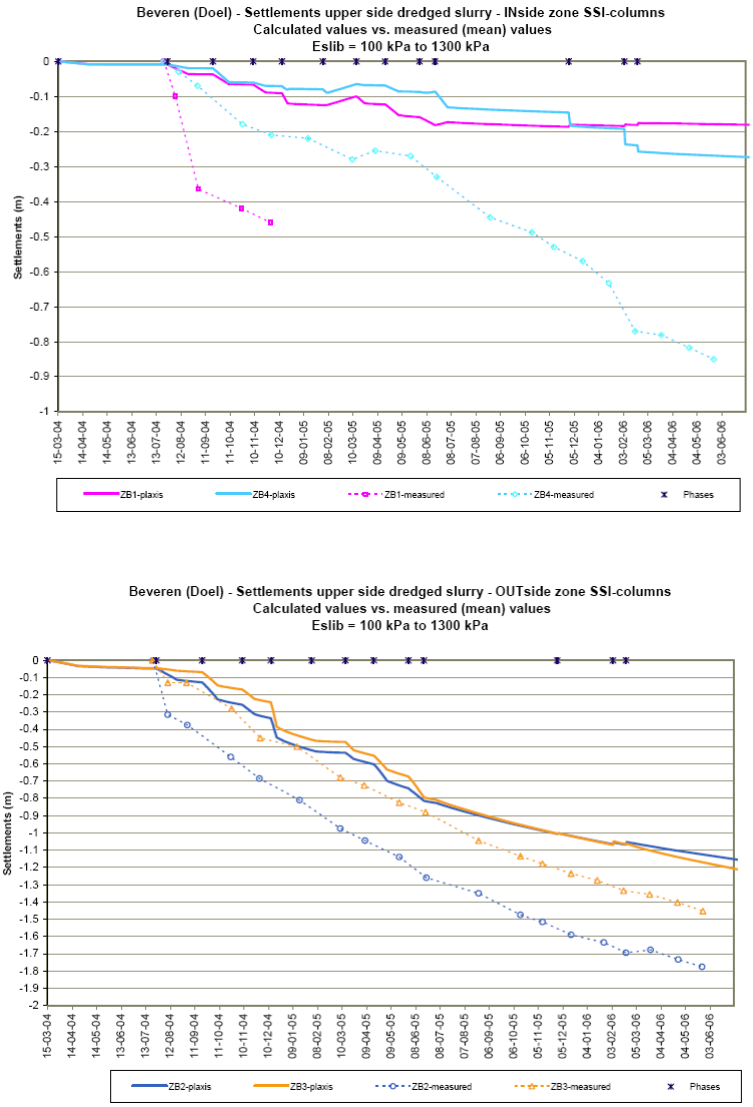

Figure 9: Calculated versus measured (mean) settlements - ZB1 and 4 - ZB2 and 3

Figure 10: Situation dam at level TAW +4.5 m

News

75th Anniversary of Research Institute of Bases and Underground Structures – NIIOSP (Moscow, Russia)

On 22 November 2006 in Moscow there was a celebration of the 75th anniversary of Research Institute of Bases and Underground Structures – NIIOSP named after N. M. Gersevanov. The celebration took place in the big Hall of the Moscow Scientist' House. NIIOSP is a leading geotechnical research institute in Russia. It was founded in Moscow in 1931 as the All-Union Research Institute of complex subsoils and foundations (VIOS). The first director of the institute was Professor N. M. Gersevanov. From the very beginning prominent Soviet scientists worked in the institute: Yu. Abelev (foundation engineering in collapsible soils), V. Gorbunov-Possadov (calculations of beams and slabs on elastic subsoils), K. Egorov (Prediction of settlements of buildings), B. Rzhanitsyn (Chemical improvement of soils), D. Barkan (Protection of foundations against dynamic impact), and many other distinguished specialists.

In 1958 NIIOSP was appointed as a leading institute responsible for the coordination of scientific work in the areas of soil mechanics, subsoil research and foundation engineering of structures, methods of their calculation and design; works implementation; and underground structures. NIIOSP has made a big contribution to construction of such important buildings and structures in the Soviet Union and Russia as high-rise buildings and Ostankiskaya TV tower in Moscow, Norilsk Smelter Plant, industrial complex "Electrosila" in Leningrad, chemical plant in Kemerovo, automobile assembly facilities in Togliatti and Naberezhnye Chelny (the VAZ and the KamAZ), important structures of the gas and oilfields in Tyumen region, Tobolsk, and Urengoi. Currently the institute acts as a scientific advisor to the construction "Moscow City: business complex, third ring road around Moscow, and other big projects in Russian and abroad.

For more than 25 years the institute was headed by well known scientist Prof. V.A. Ilichev. Now the director of the institute is Prof. V.N. Petrukhin. The festive meeting in the Scientist' House was attended by more than 400 guests. Many well known geotechnical engineers were awarded with the jubilee medal "75 anniversary of NIIOSP named after N. M. Gersevanov". Among the guests were the representatives of leading Russian engineering companies: corporation "Soyuzgidrospetsstroy", SPII "Gidrospetsproject", NPO "Kosmos" (Moscow), OAO "Mosproject", Design institute "Bashniistroy" (Ufa), NPO "Georeconstruction-Fundamentproject" (Saint Petersburg).

ISSMGE President Professor Pedro Seco e Pinto and ISSMGE Vice-president Professor Roger Frank sent congratulatory messages to the celebration of 75th anniversary of NIIOSP. In his message Prof. Pedro Seco e Pinto noted: "This Institute integrating 12 very well organized laboratories, namely on pile foundations, soil dynamics, underground structures, etc. has played a very important role for the development of research, education, design, construction techniques, quality control, monitoring and safety evaluation of geotechnical structures in the Soviet Union and in Russia". Prof. Roger Frank in his address pointed out: "I consider that, in my field of specialty, NIIOSP is one of the most advanced and experienced institutes in the world. I have learnt a lot from my cooperation with its experts. I consider our cooperation as truly exemplary and one of the great satisfactions in my professional career. At the occasion of the 75th Anniversary of NIIOSP, it is not only a great honor for me to congratulate NIIOSP for its excellency and for all its achievements, but also a very deep pleasure".

Reported by Prof. V. Ulitsky, Chair TC38 "Soil –Structure Interaction" ISSMGE and Dr. M. Lisyuk, ISSMGE Board member.

News

"Soil Improvement" Touring Lecture organized by ATMS and ISSMGE in Tunisia 15-16th December 2006

At the opening session, M. Bouassida welcomed the participants and described how the touring lectures were organized by member Societies and held under the auspices of the ISSMGE. This was in fact the first time such an event was organized in a French-speaking African country.

Day One: Rigid inclusions

The two scheduled lectures were given by François Schlosser and Alain Guilloux (Terrasol-France). In the first lecture Mr. Schlosser presented guiding principles for the design of inclusion-reinforced structures, and focused on the importance of model testing to assess design methods. In the second lecture, and using case histories, Mr. A. Guilloux illustrated the difference between design methods compared with in situ observations.

The exercise sessions included three case histories of reinforced rigid inclusions projects in Tunisia. Presentations were given by Mme Salma Khdhiri (Hydrosol Fondations) and Kamel Zaghouani and Aymen Chouikha (Terrasol-Tunisie). Mrs. S. Khdhiri described the case of rigid-inclusions used to reinforce the foundations of a building in Tunis that had suffered differential settlement and raft tilting on the completion of construction. Mr. Zaghouani and Mr. Chouikha presented a case history of the reinforcement of an unstable slope with a nailed wall. The context of the projects, the reasoning behind the techniques used, and the evolution of the design process were discussed. The various phases of the project were illustrated. Mr. Zaghouani also presented an example of geotextile reinforcement for slope rehabilitation. As before, the project's context, the reasoning behind the techniques used, and the evolution of the design process were discussed. Participants were interested in comparing the two techniques (geosynthetics and rigid inclusions) used in slope reinforcement. Mr. F. Kanoun, advisor to the President of the Republic of Tunisia, as well as Mr. S. Haffoudhi (Director of Hydrosol Foundations) and Ghazi Cherif (senior project manager, Rades La Goulette) played active roles in the discussion sessions. Mr. F. Schlosser and Mr. A. Guilloux, together with Mr. F. Kanoun described the first experience in Tunisia (in 1979 in Saïda Manoubia, a suburb of Tunis) of slope stabilization by rail elements incorporated in concrete-filled drilled holes. This case history is a good example of how reinforcement techniques are feasible, despite the absence of specific standards related to these techniques.

This session should, to some extent, encourage Tunisian consulting bureau to more actively recommend reinforcement techniques as a modern solution for a wide variety of projects. Some participants expressed their concerns that some reinforcement solutions are not yet accepted by insurance companies in Tunisia, which clearly requires further work to be done.

Day Two: Reinforcement by columns

The two scheduled lectures were given by Professor Mounir Bouassida (National Engineering School of Tunis) and Jean Marc Debats (Vibroflotation-Europe). M. Bouassida presented various design methods and demonstrated how they may be adapted according to different column reinforcement processes. A particular design methodology was presented to emphasize its advantages over more traditional methods using force equilibrium. Mr. Debats presented an overview of methods of stone column installation, the material, and equipment for monitoring quality control. This was illustrated by case histories from different countries, specifying in each case the objective of the reinforcement. Engineers from building control offices insist on the safety required by the insurance companies acting for building owners, especially for buildings supported on stone columns. In spite of the widespread use of the technique, when the technique on an international scale the participants enquired about the possibilities of using in Tunisia reinforcement by stone columns, which until now had focused on the application of sand piles installed to accelerate the consolidation of soft ground beneath new oil storage.

There were two parts to the exercise session. The first was devoted to a case history where stone column reinforcement techniques were used to reduce settlement. Mr. Debats described in simple terms the procedure in designing a network of stone columns as a function of loading conditions of a large raft and other shallow foundations. He also described the use of available installation equipment, depending on the geometry of the foundations. In the second part, M. Bouassida used two case histories in Tunisia to describe the direct application of a new design methodology which takes into account settlement and the increase in bearing capacity that can from column reinforcement.

Closing ceremony

M. Bouassida reminded the participants of the importance of joining the Tunisian Society of Soil Mechanics, and consequently ISSMGE, which would mean easier access to geotechnical engineering programs and activities. An additional advantage is the reduced registration fees for ISSMGE members at international conferences.

Reported by Prof. M. Bouassida, Vice President of International Society of Soil Mechanics and Geotechnical Engineering for Africa.

Event Diary

ISSMGE SPONSORED EVENTS 2007

YGAC 2007 - African Young Geotechnical Engineers' Conference
Date: 16 - 18 March 2007
Location: Hammamet, Tunisia
Contact person: Mme Samia Boussetta
E-mail: samia.boussetta@enit.rnu.tn; fesi.hz@planet.tn

III Asian Conference on Unsaturated Soils
Date: 21 - 23 April 2007
Location: Nanjing, China
Contact person: Dr Abraham C.F. Chiu (c/o Z.H. Zhao)
E-mail: geotech2@hhu.edu.cn
Website: www.geohohai.com/english/unsat.htm

18th European Young Geotechnical Engineers Conference
Date: 17 - 20 June 2007
Location: Ancona, Italy
Contact person: Prof Evelina Fratalocchi
E-mail: e.fratalocchi@univpm.it

IV International Conference on Earthquake Geotechnical Engineering
Date: 25 - 28 June 2007
Location: Thessaloniki, Greece
Contact person: Prof. Kyriazis Pitilakis (kpitilaki@civil.auth.gr)
E-mail: Secretariat: Mrs Anastasia Argyroudi anastarg@civil.auth.gr
Website: 4icege.org

13th Panamerican Conference on Soil Mechanics and Geotechnical Engineering
Date: 16 - 20 July 2007
Location: Margarita Island, Hotel Hilton, Porlamar, Nueva Esparta, Venezuela
Contact person: C.E. Isaura Romero R. XIIIPCSMGE Chairwoman
E-mail: cpmsig2007@cantv.net
Website: www.xiiicpmsig.org

First Sri Lankan Geotechnical Society (SLGS) International Conference on Soil and Rock Engineering
Date: 7 - 11 August 2007
Location: Galadari Hotel, Colombo, Sri Lanka
Contact person: Conference Co-chair: Prof. Pinnaduwa /H.S.W. Kulatilake
E-mail: kulatila@u.arizona.edu
Website: www.slgssr2007.org

14th European Conference on Soil Mechanics and Geotechnical Engineering
Date: 24 - 27 September 2007
Location: Palacio de Congresos y Exposic , Madrid, Spain, Spain
Contact person: Prof. Enrique Dapena
Website: www.ecsmge2007.org

10th Australia - New Zealand Conference on Geomechanics
Date: 21 - 24 October 2007
Location: The Hilton, Brisbane, Brisbane, Queensland, Australia
E-mail: anzgeo2007@ccm.com.au
Website: www.anzgeo2007.com

5th International Symposium on Earth Reinforcement (IS Kyushu '07)
Date: 14 - 16 November 2007
Location: Fukuoka, Japan
Contact person: Prof. Jun Otani, Chairperson of IS Kyushu '07
E-mail: iskyushu@kumamoto-u.ac.jp
Website: www.nda.ac.jp/cc/users/miyamiya/is-kyushu07/index2.htm

14th African Regional Conference on Soil Mechanics and Geotechnical Engineering
Date: 26 - 28 November 2007
Location: Yaoundé, Cameroon
Website: www.CRA-YDE-2007.org.cm

13th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering
Date: 10 - 14 December 2007
Location: ITC Sonar Bangla Sheraton, Kolkata, India
Language: English
Organizer: Indian Geotechnical Society
Contact person: Dr N. Som
Website: www.13arc2007.com

2008

The 3rd International Conference on Site Characterization
Date: 1 - 4 April 2008
Location: Taipei Int. Conv. Center, Taipei, Taiwan
Contact person: An-Bin Huang
E-mail: abhuang@mail.nctu.edu.tw
Website: www.elitepco.com.tw/ISC3/

VI International Symposium Geotechnical Aspects of Underground Construction in Soft Ground - IS- Shanghai 2008
Date: 10 - 12 April 2008
Location: Shanghai, China
Contact person: Dr. Xiongyao Xie
E-mail: secretary@tc28-shanghai.org
Website: www.tc28-shanghai.org

2nd International Conference on Geotechnical Engineering for Disaster Mitigation and Rehabilitation- GEDMAR08
Date: 30 May - 2 June 2008
Location: Nanjing, China
Contact person: Dr. An Deng
E-mail: GEDMAR08@hhu.edu.cn
Website: www.GeoHohai.com/GEDMAR08

10th International Symposium on Landslides and Engineered Slopes
Date: 30 June - 4 July 2008
Location: Xi'an, China
Contact person: Zuyu Chen
E-mail: chenzy@iwhr.com
Website: www.landslide.iwhr.com

E-UNSAT 2008: First European Conference on Unsatuated Soils
Date: 2 - 4 July 2008
Location: Durham University, Durham, UK
Organizer: Durham & Glasgow Universities
Contact person: Dr Charles Augarde

Event Diary (continued)

E-mail: e-unsat@durham.ac.uk
Website: www.e-unsat.dur.ac.uk/

1st International Conference on Transportation Geotechnics
Date: 8-10 September 2008
Location: Nottingham, UK
Contact person: Ed Ellis
E-mail: tc3conference@nottingham.ac.uk
Website: www.nottingham.ac.uk/ncg/

5th Bored and Auger Piles Conference
Date: 8 - 10 September 2008
Location: Ghent, Belgium
Contact person: Prof. William Van Impe
E-mail: william.vanimpe@ugent.be

Stress Wave 2008 - 8th International Conference on the Application of Stress Wave Theory to Piles
Date: 8 - 10 September 2008
Location: Lisbon, Portugal
Contact person: Prof. Jaime Santos
E-mail: sw2008@civil.ist.utl.pt
Website: www.civil.ist.utl.pt/sw2008

11th Baltic Sea Geotechnical Conference - Geotechnics in Maritime Engineering
Date: 15 - 18 September 2008
Location: Gdansk, Poland
E-mail: BC11@pg.gda.pl
Website: www.pg.gda.pl/~BC11

4th International Symposium on Pre-Failure Deformation Characteristics of Geomaterials and Symposium on Characterization and Behavior of Interfaces
Date: 21 - 24 September 2008
Location: Global Learning Center, Atlanta, Georgia, USA
Contact person: Glenn J. Rix
E-mail: glenn.rix@ce.gatech.edu

2009

XVII International Conference for Soil Mechanics and Geotechnical Engineering
Date: 5 - 9 October 2009
Location: Bibliotheca Alexandrina, Alexandria, Egypt
Website: www.2009icsmge-egypt.org/

NON-ISSMGE SPONSORED EVENTS 2007

st Middle European Conference on Landfill Technology
Date: 31 May - 1 June 2007
Location: Budapest, Hungary
Organizer: DGGT, HNC ISSMGE
• E-mail: ISSMGE@ymmfk.szie.hu.

I North American Landslide Conference - Landslides and Society: Integrated Science, Engineering, Management, and Mitigation
Date: 3 - 8 June 2007
Location: Vail Marriott Mountain Resort, Vail, Colorado, USA
Organizer: AEG, Geo-Institute, ARMA
Contact person: Via website
Website: www.mines.edu/academic/geology/landslidevail2007/

Geotechnical Engineering for Disaster Prevention & Reduction
Date: 25 - 27 July 2007
Location: Yuzhno-Sakhalinsk, Russia
Contact person: Prof. Askar Zhusupbekov
E-mail: askarz@nets.kz

60th Canadian/8th CGS_IAH Conference
Date: 21 - 24 October 2007
Location: Westin Hotel, Ottawa, Ontario, Canada
Contact person: K. Tim Law (Co-chair)
E-mail: tlaw@ccs.carleton.ca
Website: www.ottawageo2007.ca

International Symposium on Geotechnical Engineering, Ground Improvement and Geosynthetics for Human Security and Environment Preservation
Date: 6-7 December 2007
Location: Bangkok, Thailand
Contact person: ACSIG Secretariat
E-mail: igs-thailand@ait.ac.th, acsig@ait.ac.th

2008

GEESD IV - Geotechnical Earthquake Engineering and Soil Dynamics IV
Date: 18 - 22 May 2008
Location: Sacramento, California, USA
Contact person: Ross W. Boulanger
E-mail: rwboulanger@ucdavis.edu
Website: www.geesd.org

2nd British Geotechnical Association Conference on Foundations- ICOF2008
Date: 24 - 27 June 2008
Location: University of Dundee, Dundee, Scotland, UK
Contact person: Dr Michael Brown
E-mail: m.j.z.brown@dundee.ac.uk
Website: www.dundee.ac.uk/civileng/icof2008

33rd International Geological Congress
Date: 4 - 15 August 2008
Location: Oslo, Norway
Contact person: 33rd IGC
Website: www.33igc.org

6th International Conference on Case Histories in Geotechnical Engineering
Date: 11 - 16 August 2008
Location: Washington, D.C., USA
Contact person: CShamsher Prakash, Conference Chairman
E-mail: prakash@umr.edu
Website: www.6icchge2008.org

XII International Conference of IACMAG
Date: 1 - 6 October 2008
Location: India
Contact person: Dr. D. N. Singh
E-mail: dns@civil.iitb.ac.in
Website: www.12iacmag.com

Announcement

ISSMGE Council Meeting

The next biennial ISSMGE Council Meeting will be held on Sunday 21st October 2007, in Brisbane, Queensland (Australia) at the time of the 10th Australia - New Zealand Conference on Geomechanics (21-24 October).

The Draft Agenda has recently been distributed to Member Societies, and the final Agenda with accompanying papers will be distributed in July 2007.

The ISSMGE Board look forward to seeing the Member Societies' representatives at the Council Meeting, and hope that they will also be able to attend the Conference. Details of the conference can be found at http://www.anzgeo2007.com/

Editorial Remarks

The editorial board is pleased to be able to launch ISSMGE Bulletin and publish the first issue in March 2007. The ISSMGE Board believes that the Bulletin improves our services to member societies by disseminating information regarding current & future activities in our society, and regarding updated technology through case history, and the Bulletin also improves our communication paths among member societies, between member societies and the ISSMGE Board, and also between generations.

The Bulletin is planned to be quarterly and the second issue is scheduled to be published in June. Contributions from member society, TC, or individual member are very much welcome, in particular in the categories of 'Case History', 'Views of Young Geotechnical Engineers' and 'News'. Any comments to improve the Bulletin are also welcome. Please contact a member of the editorial board on the first page or Vice-Presidents for your region, or directly e-mail to Osamu Kusakabe (kusakabe@cv.titech.ac.jp).

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